

# CALIFORNIA STATE UNIVERSITY, LONG BEACH 2006-2007 Undergraduate and Graduate Catalog 

IBC 2006-2007 Catalog
CSU LONG BEACH CAMPUS MAP - FULL PAGE PICTURE

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## THE UNIVERSITY

## Mission and Vision

California State University, Long Beach is a large, urban, comprehensive university in the 23-campus California State University system. In accordance with the California Master Plan for Higher Education, its mission is to provide education of high quality which leads toward a broad range of baccalaureate and graduate degrees spanning the liberal arts and sciences and many applied and professional fields.

CSULB is committed to serving the people of California and endeavors to provide academic programs and campus services for both traditional and non-traditional students. The University enrolls students who have graduated in the top third of the State's high school graduating class, those who have completed a community college program, and adults re-entering education.

CSULB aims, above all, to graduate students with highly valued degrees, and to prepare them for lifelong learning as well as for success in a variety of professional fields. To these ends, the mission of the undergraduate curriculum is grounded in a strong general education program, emphasizing the acquisition of writing, critical thinking, and analytical skills and knowledge of cultural and artistic traditions; the analysis of human behavior and society in the past and present; and scientific modes of inquiry.

The mission of all degree programs is to provide each student with the skills necessary to pursue knowledge and to integrate information from various sources, and also to provide depth in at least one area of specialization. The mission of the graduate programs is to prepare students to enter careers requiring training beyond the baccalaureate, to advance in their jobs, or to pursue advanced study. Doctoral programs are intended to provide both advanced knowledge and the skills needed to pursue independent research. Educational support programs and services for students emphasize the importance of personal, interpersonal, and social development.

A fundamental goal of the University is to prepare students to function effectively in a culturally diverse society by developing an understanding of our diverse heritage, including the essential contributions of women and ethnic minorities. Instruction in all disciplines emphasizes ethical and social dimensions as well as their applications to contemporary world issues. The University also emphasizes global awareness, through internationally-focused curricula and encouragement of study abroad.

CSULB seeks to engage students directly in their learning by offering most of the curriculum in small sections taught by fully qualified, professionally active faculty
members, and by providing opportunities for students to work with faculty members in independent research and creative activities. CSULB serves the surrounding community through applied research, training and community service programs, and other forms of civic engagement. Faculty and staff are committed to student success and are actively involved in fostering that success both in and out of the classroom.

## The Faculty

The faculty of California State University, Long Beach is highly educated and dedicated to the success of the students. They create an intellectual atmosphere that encourages students to develop a spirit of investigation which becomes a life-long approach to issues and problems.

The role of the university professor is somewhat different from that of the high school teacher. University faculty are involved in the creation of knowledge as well as the dissemination of it. Our expectation is that students will not only use the 145 instructional days per year to the best possible advantage, but also to reflect on the learning process and to think about how the professor came to understand and organize the knowledge presented, and thus take full advantage of the University's resources and take responsibility for their own education.

The explicit policies of the University, developed by the faculty, on grades and grading, on class attendance, withdrawal from courses, and cheating and plagiarism are located elsewhere in this Catalog. These and other policies reflect the concerns of the faculty that students take seriously the opportunities made available to them. Beyond these rules and regulations the faculty expect student participation in their education that may be different from or more active than what students have been used to in secondary schools.

In addition, the California State University (CSU) is committed to upholding and preserving the principles of academic freedom: the right of faculty to teach, conduct research or other scholarship, and publish free of external constraints other than those normally denoted by the scholarly standards of a discipline. (CSU AS-2649-04/FA)

Professors, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognize the special responsibilities placed upon them. Their primary responsibility to their subject is to seek and to state the truth as they see it. To this end professors devote their energies to developing and improving their scholarly competence. They accept the obligations to exercise critical selfdiscipline and judgment in using, extending, and transmitting
knowledge. They practice intellectual honesty. Although professors may follow subsidiary interests, these interests must never seriously hamper or compromise their freedom of inquiry.

As teachers, professors encourage the free pursuit of learning in their students. They hold before them the best scholarly and ethical standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to ensure that their evaluations of students reflect each student's true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic or scholarly assistance from them. They protect their academic freedom. (PS 00-07)

Faculty earn academic rank as they develop their course materials, research and creative activities, academic and community service, and publications. The highest faculty rank is "Professor," sometimes called "full Professor." The intermediate rank is "Associate Professor." Most faculty begin their careers as "Assistant Professors."

## Academic Organization of the University

During the regular session California State University, Long Beach is as large as a small city. More than 33,000 students, nearly 2,000 faculty, and 1,600 professional staff members study and work on campus each week. In order to operate, the campus has been organized into eight colleges and many academic departments and programs. The names of the colleges, departments, and programs and their current deans are included later in this Catalog.

The elemental unit of academic organization at this University is the department. Departments are most often coincident with a discipline and usually share the same name. Faculty are members of departments. Thus the Department of Biological Sciences has many "programs," including degrees in Biology and Microbiology, a minor in Biology, and a certificate in Biomedical Art. This Catalog also has information on academic areas, like Gerontology, which are not part of any one department. Some of these areas are called "Studies," e.g., Women's Studies, Medieval and Renaissance Studies. This means that the field is essentially an interdisciplinary one and is the product of the activities of faculty from many departments.

Normally these departments and sub-divisions have committees to discuss curriculum and other matters. Since departments and programs are constituent parts of the colleges, they also send members to college-level committees and councils. These bodies serve to develop, refine, and review curriculum. At the University level
faculty members from all of the colleges are elected to several councils and to the Academic Senate. These bodies concern themselves with campus-wide issues. Many of these councils, their subcommittees, and the Academic Senate have also provided for staff, student, and administration membership.

For students who have just begun their life in the University, some of the departments will be unknown territory. Other departments and programs will turn out to be considerably different from first expectations or previous experiences with high school subjects of the same or similar names. For students who have begun to focus their academic interests, exploration of the departments and programs of a college beyond the favorite first contact area will often prove to be a valuable part of the process of choosing an academic major.

## The University Library

The mission of the University Library is to connect students, faculty, staff, and members of the local community with the information resources they need for study, research, and recreation. The library contains substantial collections of books, journals, government documents, videos, maps, and other physical materials, all listed in its online catalog, COAST (http://coast.csulb.edu).

These resources are enhanced by the more than 5 million volumes available through the Link+ consortium, by the library's subscriptions to thousands of web-based reference sources and full-text journals, and by its rapidly growing collection of electronic books. Increasingly, the library is able to deliver needed information to the desktop at any time of the day or night.

The library's staff and faculty are committed to efficient, helpful service, whether at the circulation desk, the reference center, the interlibrary services desk, or any of its other departments. Librarians guide scholars through the process of identifying, retrieving, organizing, and evaluating sources of information appropriate to their educational needs or personal interests.

A wide range of library instruction opportunities is available to the campus community, from a credit course designed to introduce new students to basic concepts of information literacy, to librarian workshops geared to the needs of a particular course, to in-depth consultation focusing on a specific research topic.

The library provides adaptive devices to make its print and electronic resources accessible to the disabled and works closely with Disabled Student Services to insure that equipment, facilities, and collections are responsive to special needs. The University Library's Special Collections Department contains rare, significant, or unusual books, manuscripts, correspondence, art prints, and photographic prints; details can be found at http://www.csulb.edu/library/ guide/serv/special.html.

## Setting

The hilltop portion on the 322-acre campus overlooks the Pacific Ocean. Eighty permanent buildings house the various colleges, 63 academic departments and programs, 24 centers, 4 institutes, and 4 clinics.

The student-operated University Student Union is located at the crossroads of the campus, providing a focal point for the total campus community. Brotman Hall, near the Union, houses many centralized campus services and administrative offices. There are also specialized facilities for Engineering Technology, Art, Industrial and Interior Design, Music, Molecular and Life Sciences, and Nursing as well as the International House student residence hall and meeting complex.

A state-of-the-art building for the College of Business Administration, complete with decision-support laboratories, multi-media capability, and modern lecture halls, opened in 1991. The Department of Dance occupies quarters in the largest and best-equipped instructional dance facility in the nation.

The striking beauty of the campus owes much to the planting of 3,200 Helen Borcher flowering peach trees that were donated by the citizens of Long Beach. Secluded landscape areas and buildings of appropriate scale help maintain a learning environment that encourages small group identification and personal privacy in the midst of 37,000 individuals sharing the same site, on what is essentially a large urban campus.

In 1965, the International Sculpture Symposium contributed 9 monumental pieces and designs to the University. These works received credits in 21 national and international publications, and in 1972 additional community funds in the form of a trust provided for the completion of the Carlson Memorial Tower, designed by French sculptor Andre Bloc. The campus sculpture collection has continued to expand, with the addition of works by artists such as Guy Dill, Michael Davis, Robert Irwin, Bryan Hunt, and Woods Davy. These acquisitions were made possible by private donations and grants from the National Endowment for the Arts to the University Art Museum.

## History

Los Angeles-Orange County State College opened its doors on September 28, 1949, to an entering group of 169 juniors and seniors. The Schedule of Classes listed 25 courses taught by thirteen faculty members in support of five undergraduate majors. The campus consisted of two converted apartment buildings at 5381 and 5401 Anaheim Road in Long Beach. Within two years the City of Long Beach purchased a permanent site for the fledgling institution and donated it to the state, construction began on the first permanent buildings, and the renamed Long Beach State College moved to its present location. Two decades later the rapidly growing institution had earned designation as a university and became the largest single campus in the California State University system.

The Legislature voted to establish a state college in the Long Beach area because it recognized that rapid suburban development would create a need for more trained teachers and business employees. Instead of limiting itself to those fields, however, California State University, Long Beach has evolved into one of the nation's leading urban comprehensive universities.

In addition to Colleges of Education and Business Administration, CSULB developed a nationally renowned College of the Arts, a College of Engineering that attracts millions of dollars in government contracts and corporate donations, and a College of Health and Human Services that prepares a wide range of skilled personnel for the health care industry. The College of Liberal Arts and the College of Natural Science and Mathematics provide a solid foundation in general education for all CSULB undergraduates as well as majors ranging from anthropology to physics and from biochemistry to philosophy.

## Campus Distinctions

California State University, Long Beach has much to offer its students. The faculty has made a commitment to excellence in both teaching and research, and most university classes are taught in small sections so students have an opportunity for regular contact with their professors as well as involvement in original research and creative activities under faculty supervision. As a result, CSULB has attracted 350 California high school valedictorians and National Merit Finalists among its current undergraduate population.

CSULB also offers a wealth of cultural and recreational opportunities. There are live performances of plays, music, and dance in the University's seven theater facilities virtually every night of the week. The University Art Museum and the student and faculty galleries in the Art and Design departments afford access to exciting innovations in the visual arts.

Eighteen men's and women's sports compete in our excellent and competitive NCAA Division I athletic program. The women's volleyball team has appeared in 8 Final Fours in the last 15 years, winning 3 national championships and finishing second in 2001. The athletic program also includes club or intramural competition in approximately 30 different sports.

The Associated Students, Inc. and the Office of Student Life and Development sponsor nearly 200 additional campus organizations, ranging from fraternities and sororities to cultural associations, religious clubs, honor societies, political and social action clubs, and special interest clubs. Students at CSULB are assured of a wellrounded collegiate experience if they take advantage of the opportunities that surround them.

## DEGREES, OPTIONS, MINORS, CERTIFICATES, AND CREDENTIALS

| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| 3-D Media | Option, BA in Art | Art |
| Accountancy | Option, BS in Business Administration | Accountancy |
| Acting | Option, MFA in Theatre Arts | Theatre Arts |
| Adapted Physical Education | Credential, BS in Kinesiology | Kinesiology |
| Aerospace Engineering | BS/MS | Mechanical and Aerospace Engineering |
| Aerospace Manufacturing | Certificate | Mechanical and Aerospace Engineering |
| American Indian Studies | Minor/Certificate | American Indian Studies |
| American Studies | BA/Minor | American Studies |
| Anthropology | BA/Minor/MA | Anthropology |
| Anthropology-General | Option, MA in Anthropology | Anthropology |
| Applied Anthropology | Option, MA in Anthropology | Anthropology |
| Art | Option, BA in Art | Art |
| Art Education | BA/BFA/MFA | Art |
| Art History | Option, BA in Art | Art |
| Art Photography | Option, BFA in Art | Art |
| Art-Art History | Option, BA in Art | Art |
| Art-Studio | Option, BA in Art | Art |
| Asian American Studies | BA/BS/Minor/Certficate | Asian American Studies |
| Asian Studies | BA/MA/Certificate | Asian American Studies |
| Athletic Training | Option, BS in Kinesiology | Kinesiology |
| Audio Engineering | Option, BS in Engineering | College of Engineering |
| Biochemistry | BS/MS | Chemistry and Biochemistry |
| Biological Sciences | Science Teaching Credential | Single Subject Credential |
| Biology | BS/Minor/MS | Biological Sciences |
| Biology Education | Option, BS in Biology | Biological Sciences |
| Biomedical and Clinical | Option, BS in Engineering | Engineering |
| Biomedical Art | Certificate | Biological Sciences |
| Biotechnology | Certificate | Biological Sciences |
| Black Studies | BA/Minor /Certificate | Black Studies |
| Botany | Option, BS in Biology | Biological Sciences |
| Business Administration | BS/MBA | College of Business Administration |
| Business Economics | BA/Minor | Economics |
| Campus Recreation and Student Service Programs, Administration of | Certificate | Recreation and Leisure Studies |
| Career Counseling | Option, MS in Counseling | Education Psychology |
| Career Guidance Specialist | Graduate Certificate | Education Psychology |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Cartography and Geographic Information Science | Certificate | Geography |
| Cell and Molecular Biology | Option, BS in Biology | Biological Sciences |
| Ceramics | Option, BFA | Art |
| Chemical Engineering | BS | Engineering |
| Chemistry | BA/BS/Minor/MS/Science Teaching Credential | Chemistry and Biochemistry |
| Chicano-Latino Studies | BA/Minor /Certificate | Chicano and Latino Studies |
| Child Development and Family Studies | Option, Family and Consumer Sciences/Certificate | Child Development and Family Studies |
| Chinese Studies | BA | Asian American Studies |
| Choral-Voice Music | Option, BM | Music |
| Classical Studies | BA | Comparative World Literature and Classics |
| Classics | Minor | Comparative World Literature and Classics |
| Coaching | Option, MA in Kinesiology | Communication Studies |
| Communication Studies | BA/MA | Communication Studies |
| Communication Studies-General | Option, BA/MA in Communication Studies | Communication Studies |
| Communication StudiesInterpersonal and Organizational | Option, BA in Communication Studies | Communication Studies |
| Communication Studies-Rhetorical Studies | Option, BA in Communication Studies | Communication Studies |
| Communicative Disorders | BA/MA | Communicative Disorders |
| Community Health Education | Option, BS in Health Science | Health Science |
| Community Health Education | Option, Master of Public Health | Health Science |
| Community Physical Fitness | Certificate | Health Science |
| Comparative World Literature | BA/Minor | Comparative World Literature and Classics |
| Composition | Option, Minor in English | English |
| Computer Engineering Technology | BS | Engineering Technology |
| Computer Science | Certificate | Computer Engineering and Computer Science |
| Computer Technology | Option, BS in Electronics and Computer Engineering Technology | Engineering Technology |
| Consumer Affairs | Option, BA in Family and Consumer Sciences | Consumer Affairs |
| Corporate Training and Development | Option, BS Occupational Studies | Occupational Studies |
| Creative Writing | Option, BA in English/Minor/MFA | English |
| Cross-Cultural Language and Academic Development Studies | Minor | Linguistics |
| Dance | BA/BFA/Minor/MA/MFA | Dance |
| Dance Science | Option, BA in Dance | Dance |
| Drawing and Painting | Option, BFA | Art |
| Earth Science | BS | Geological Sciences |
| Ecology | Option, BS in Biology | Biological Sciences |
| Economics | BA/Minor/MA | Economics |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Economics-General | Option, BA in Economics | Economics |
| Education Administration | Option, MA in Education | Education |
| Education Administration and Leadership | EdD | Education |
| Educational Psychology | Option, MA in Education | Education Psychology |
| Educational Technology | Option, MA in Education | Education |
| Electronics Engineering Technology | BS | Electronics Engineering Technology |
| Elementary School Physical Education | Option, BA in Kinesiology | Education |
| Elementary Science Education | Option, MS in Science Education | Education |
| Emergency Services Administration | MS | Occupational Studies |
| Energy Conversion and Power | Certificate | Mechanical and Aerospace Engineering |
| Engineering | BS/MS | College of Engineering |
| Engineering and Industrial Applied Mathmatics | PhD | College of Engineering |
| Engineering Management | MS | College of Engineering |
| Engineering Technology | BS | Engineering Technology |
| English | BA/Minor/MA/Single Subject Credential | English |
| English and Spanish | Option, BA in Translation and Interpretation | Spanish |
| English Education | Option, BA in English | English |
| English-Creative Writing | Option, BA in English | English |
| English-Language and Composition | Minor in English | English |
| English-Technical and Professional Communication | Certificate | English |
| Entrepreneurship | Minor | College of Business Administration |
| Environmental Engineering | Minor | College of Engineering |
| Environmental Science and Policy | BA/Minor | Economics |
| Environmental Technology | BS | Chemical Engineering |
| Exercise Science | Option, BS/MS in Kinesiology | Kinesiology |
| Facilities Operations | Certificate | Civil Engineering |
| Family and Consumer Sciences | BA/MA | Family and Consumer Sciences |
| Family and Consumer Sciences Education | Option, BA Family and Consumer Sciences | Family and Consumer Sciences Education |
| Fashion Merchandising | Option, BA in Family and Consumer Sciences | Fashion Merchandising and Design |
| Film and Electronic Arts | BA/Minor | Film and Electronic Arts |
| Film and Electronic Media | Option, BA in Film and Electronic Arts | Film and Electronic Arts |
| Film and Video Production | Option, BA in Film and Electronic Arts | Film and Electronic Arts |
| Finance | Option, BS in Business Administration | College of Business Administration |
| Fitness | Option, BS in Kinesiology | Kinesiology |
| Food Science | Option, BS in Dietetics and Food Administration | Food Science |
| Foodservice Systems Administration | Certificate | Hospitality Foodservice and Hotel Management |


| Program Title | Type of Program | Catalog Reference |
| :--- | :--- | :--- |
| French | BA/Minor/MA/Single Subject Credential | French |
| French Studies | BA | French |
| Geography | BA/Minor/MA | Geography |
| Geology | BS/Minor/MS | Geological Sciences |
| Geosciences | Science Teaching Credential | Single Subject Credential |
| German | BA/Minor/Single Subject Credential, MA | German |
| Gerontology | MS/Certificate | Gerontology |
| Global Logistics | MA | Economics |
| Graphic Design | Option, BFA | Art |
| Greek | Minor | Comparative World <br> Literature and Classics |
| Greek Civilization | Option, BA in Classics | Comparative World <br> Literature and Classics |
| Health Care | Option, BS in Health Science | Health Science |
| Heating Ventilation and Air | Certificate | Mechanical and <br> Aerospace Engineering |
| History | BA/Minor | History |
| Hospitality Foodservice and Hotel <br> Management | BS/Minor/Certificate | Italian |
| Human Development | Option, BA in Communication Studies | Haspitality Foodservice |
| and Hotel Management |  |  |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Journalism | BA/Minor | Journalism |
| Kinesiology | BA/BS/MA/MA | Kinesiology |
| Kinesiology-Physiology and Nutrition | Option, MS in Kinesiology | Kinesiology |
| Kinesiotherapy | Option, BS in Kinesiology | Kinesiology |
| Language and Composition | Minor | English |
| Language and Culture | Option, MA in Linguistics | Linguistics |
| Language Other Than English | Certificate | College of Liberal Arts |
| Language, Speech, \& Hearing with Authorization to Teach Language Disordered Children | Credential | Communcative Disorders |
| Language, Speech, \& Hearing | Credential | Communicative Disorders |
| Latin | Minor/Single Subject Credential | Comparative World Literature and Classics |
| Latin American Studies | Minor/Certificate/Single Subject Credential | History |
| Legal Studies in Business | Option, BS in Business Administration | College of Business Administration |
| Legal Studies in Liberal Arts | Certificate | History |
| Leisure Studies | Graduate Certificate | Recreation and Leisure Studies |
| Liberal Studies | BA/BS/Credential | Liberal Studies |
| Linguistics | BA/Minor/MA | Linguistics |
| Linguistics-General | Option, MS in Linguistics | Linguistics |
| Literacy and Composition, Literature, Speech Communication, Theatre Arts | Single Subject Credential | Single Subject CredentialEnglish |
| Literature | Option, BA in English/Option, Minor in English/ Certificate | English |
| Literature and Cultural Studies | Certificate | Spanish |
| Management | Option, BS in Business Administration | College of Business Administration |
| Management Information Systems | Option, BS in Business Administration | College of Business Administration |
| Manufacturing Engineering Technology | BS | Mechanical and Aerospace Engineering |
| Marine Biology | BS | Biological Sciences |
| Marketing | Option, BS in Business Administration | College of Business Administration |
| Marriage and Family Therapy | Option, MS in Counseling | Educational Psychology, Administration, and Counseling |
| Materials Engineering | Option, BS in Engineering | Mechanical and Aerospace Engineering |
| Mathematical Economics and Economic Theory | Option, BA Economics | Economics |
| Mathematics | BS/Minor/MS/Single Subject Credential | Mathematics and Statistics |
| Mathematics Education | Option, BS in Mathmatics/Minor/MS | Mathematics and Statistics |
| Mathematics Education for Secondary School Teachers | Option, BS in Mathmatics/MS | Mathematics and Statistics |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Mathematics, Applied | Option, BS Mathematics | Mathematics and Statistics |
| Mathematics-General | Option, MS in Mathematics | Mathematics and Statistics |
| Mechanical Engineering | BS/MS | Mechanical and Aerospace Engineering |
| Medieval and Renaissance Studies | Minor/Certificate | History |
| Microbiology | BS/Minor/MS | Biological Sciences |
| Middle Eastern Studies | Minor | History |
| Mild/Moderate Disabilities Credential | Credential, Education Specialists | Colege of Education |
| Moderate/Severe Disabilities Credential | Credential/Education Specialists | College of Education |
| Motor Behavior | Option, MA in Kinesiology | Kinesiology |
| Music | BA/Minor/MA/MM | Music |
| Music-Composition | BM | Music |
| Music-Literature | BM | Music |
| Nursing | BS/MS | Nursing |
| Nutrition and Dietetics | Option, BS in Dietetics and Food Administration | Nutrition and Dietetics |
| Occupational Studies | BS/MA | Professional Studies |
| Operations Management | Option, BS in Business Administration | College of Business Administration |
| Outdoor Recreation Resources, Administration of | Certificate | Recreation and Leisure Studies |
| Peace Studies | Certificate | Peace Studies |
| Pedagogical Studies | Option, MA in Kinesiology | Kinesiology |
| Performance-Music | Option, BM in Music | Music |
| Performance-Theatre | Option, BA in Theatre Arts | Theatre Arts |
| Philosophy | BA/Minor/MA | Philosophy |
| Physical Therapy | MPT | Physical Therapy |
| Physics | BA/BS/Minor/MS/Science Teaching Credential | Physics and Astronomy |
| Physics, Applied | Option, MS Physics | Physics and Astronomy |
| Physics-General | Option, MS Physics | Physics and Astronomy |
| Physiology | Option, BS in Biology/Minor | Biological Sciences |
| Political Science | BA/Minor/MA | Political Science |
| Pre-Athletic Training | Certificate | Kinesiology |
| Printmaking | Option, BFA | Art |
| Professional Credential | Option, Credential in Administrative Services | Colege of Education |
| Psychology | BA/Minor/MA/MS | Psychology |
| Psychology-General Research | Option, MA in Psychology | Psychology |
| Psychology-Human Factors | Option, MS in Psychology | Psychology |
| Psychology-Industrial and Organizational | Option, MA in Psychology | Psychology |
| Public Administration | Minor/MPA | Public Policy and Administration |
| Public Management Analyst | Graduate Certificate | Public Policy and Administration |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Public Policy | Minor | Political Science |
| Public Sector Employer-Employee Relations and Personnel Management | Graduate Certificate | Public Policy and Administration |
| Public Sector Financial Management | Graduate Certificate | Public Policy and Administration |
| Public Works Administration | Option, Master of Public Administration | Public Policy and Administration |
| Radiation Therapy | Option, BS in Health Science | Health Science |
| Recreation | BA/Minor | Recreation and Leisure Studies |
| Recreation Administration | MS | Recreation and Leisure Studies |
| Registered Nurse | Option,BS in Nursing | Nursing |
| Religious Studies | BA/Minor/MA/Certificate | Religious Studies |
| Research and Evaluation | Option, BS in Occupational Studies | Professional Studies |
| Rhetoric and Composition | Option, BA in English | English |
| Rhetorical Studies | Option, BA in Communication | Communication Studies |
| Roman Civilization | Option, BA in Classics | Comparative World Literature and Classics |
| Russian | Minor | Russian |
| Russian and East European Studies | Certificate | Russian |
| Safety Operations | Certificate | Engineering Technology Programs |
| School Counseling | Option, MS in Counseling | Educational Psychology |
| School Counseling | Credential, Pupil Personnel Services | College of Education |
| School Health Education | BS in Health Science | Health Science |
| School Librarianship | Option, MS in Education | College of Education |
| School Psychology | Credential, Pupil Personnel Services | College of Education |
| Science Education | MS | Science Education |
| Sculpture | Option, BFA | Art |
| Secondary Education | Option, MA in Education | College of Education |
| Secondary School Physical Education | Option, BA in Kinesiology | Kinesiology |
| Secondary Science Education | Option, MS in Science Education | Science Education |
| Social and Multicultural Foundations of Education | Option, MA in Education | College of Education |
| Social Work | BA/MSW | Social Work |
| Sociology | BA/Minor | Sociology |
| Spanish | BA/Minor/MA/Single Subject Credential | Spanish |
| Spanish-General | Option, BA in Spanish | Spanish |
| Spanish-Lingusitics and Language Acquisition | Option, BA in Spanish | Spanish |
| Spanish-Literature and Cultural Studies | Option, BA in Spanish | Spanish |
| Spanish-Translation | Option, BA in Spanish | Spanish |
| Special Education | MS | College of Education |


| Program Title | Type of Program | Catalog Reference |
| :---: | :---: | :---: |
| Speech Communication | Minor | Communication Studies |
| Sport and Exercise Psychology | Option, MS in Kinesiology | Kinesiology |
| Sport Psychology and Coaching | Option, BS in Kinesiology | Kinesiology |
| Sports Management | Option, MA in Kinesiology | Kinesiology |
| Sports Medicine and Injury Studies | Option, MS in Kinesiology | Kinesiology |
| Sports Studies | Option, MA in Kinesiology | Kinesiology |
| Statistics | Option, BS in Mathematics/Minor/ | Mathematics and Statistics |
| Statistics, Applied | Option, MS in Mathematics | Mathematics and Statistics |
| Student Development in Higher Education | Option, MS in Counseling | Educational Psychology, Administratiion and Counseling |
| Studio Art | Option, BA in Art | Art |
| Systems Engineering | Graduate Certificate | College of Engineering |
| Teaching English as a Second Language | Option, MA in Linguistics/Graduate Certificate | Linguistics |
| Technical | Option, MFA in Theatre Arts | Theatre Arts |
| Technical Theatre | Options, BA in Theatre Arts | Theatre Arts |
| Technology and Engineering Education | Option, BS in Engineering Technology | Engineering Technology Programs |
| Textiles and Clothing | Option, BA in Family and Consumer Sciences | Fashion Merchandising and Design |
| Theatre Arts | BA/Minor/MFA | Theatre Arts |
| Theatre Arts-Acting | Option, MFA in Theatre Arts | Theatre Arts |
| Theatre Arts-Dramatic Writing | Option, MFA in Theatre Arts | Theatre Arts |
| Theatre-Management | Option, MFA in Theatre Arts | Theatre Arts |
| Theatre-Performance: Acting/ Directing | Option, BA in Theatre Arts | Theatre Arts |
| Theatre-Technical Theatre: Scenery/Costume/Lighting Design | Option, BA/MFA in Theatre Arts | Theatre Arts |
| Theme Park Engineering | Option, BS in Engineering | College of Engineering |
| Therapeutic Recreation | Certificate | Recreation and Leisure Studies |
| Transition Services | Option, BS in Occupational Studies | Professional Studies |
| Translation and Interpretation | BA | Spanish |
| Transportation | Certificate | College of Business |
| Transportation Policy and Planning | Graduate Certificate | Public Policy and Administration |
| Travel and Tourism, Administration of | Certificate | Recreation and Leisure Studies |
| Urban Affairs | Option, MPA | Public Policy and Administration |
| Urban and Regional Studies | Graduate Certificate | Public Policy and Administration |
| Urban Executive Management | Certificate | Geography |
| Vocational Full Time | Options, Designated Subjects Credential | Professional Studies |
| Vocational Part Time | Options, Designated Subjects Credential | Professional Studies |


| Program Title | Type of Program | Catalog Reference |
| :--- | :--- | :--- |
| Vocational Rehabilitation <br> Counseling | Option, MS in Counseling | Educational Psychology, <br> Administratiion and <br> Counseling |
| Volunteer Services, Administration <br> of | Certificate | Recreation and Leisure <br> Studies |
| Waste Engineering and <br> Management | Graduate Certificate | Civil Engineering |
| Web and Technology Literacy | Minor | Computer Engineering <br> and Computer Science |
| Web and Technology Literacy | Certificate | Computer Engineering <br> and Computer Science |
| Wilderness Studies | Certificate | Recreation and Leisure <br> Studies |
| Women's Studies | BA/Minor | Women's Studies |
| Zoology | Option, BS in Biology | Biological Sciences |

## ADMISSION TO CSULB

## Choosing CSULB

CSULB's core academic purpose is to graduate students with highly valued degrees. Our faculty and staff are dedicated to fostering student success both in and out of the classroom. We encourage prospective students to find out more about our campus to see if CSULB is the right choice for them.

The Office of University Outreach and School Relations is the primary student recruitment and guest relations office for the university. It disseminates information on the CSU and CSULB Admissions and financial aid policies and procedures; on CSULB's academic programs; and on student services to prospective students and counselors from high schools and community colleges in the CSULB service area and surrounding communities.

A major focus of University Outreach and School Relations is the implementation of outreach and recruitment programs and services to reach a diverse pool of talented high school and transfer students for whom CSULB is their "University of Choice." The Office, under the direction of the President, is also responsible for recruitment of President's Scholars (California valedictorians and National Merit Finalists and Semi-Finalists).

University Outreach and School Relations offers guided campus tours by appointment. Those interested in visiting the campus should call (562) 985-5358. Specialized campus visits for K-12 students, parents, counselors and other interested groups may also be arranged.

In addition, the office administers pre-admissions and application workshops for prospective freshmen and transfer students; the Young Scholars Programs for qualified high school students; the Early Assessment Program (EAP); admission services for adult re-entry students; and educational awareness and academic enrichment services for elementary and middle school students.

The Office of University Outreach and School Relations is located in Brotman Hall, Room 289. For more information, visit the UOSR website at www.csulb.edu/outreach.

## Admissions Procedures and Policies

Requirements for admission to California State University, Long Beach are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Code of Regulations. Students who are not sure of these requirements should consult a high school or community college counselor or the Admissions Office.

Electronic versions of the CSU undergraduate and graduate applications are accessible on the World Wide Web at www.csumentor.edu. The CSUMentor system allows students to browse through general information about the CSU's twenty-three campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid. Information on CSULB requirements and deadlines can be found at www.csulb.edu.

Applications may be obtained online or at any California high school or community college or from the Office of

Admission at any of the campuses of the California State University. Applying online via www.csumentor.edu is encouraged, and many CSU campuses will facilitate use of online applications for admission.

## Importance of Filing Complete, Accurate, and Authentic Application Documents

CSU, Long Beach advises prospective students that they must supply complete and accurate information on the application for admission, residence questionnaire, and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301, Article 1.1, of Title 5, California Code of Regulations).

## Undergraduate Application Procedures

Prospective students applying for part-time or fulltime undergraduate programs of study in day or evening classes must file a complete undergraduate application. The $\$ 55$ nonrefundable application fee should be in the form of a check or money order payable to "The California State University" or by credit card if submitting the online application, and may not be transferred or used to apply to another term. An alternate campus and major may be indicated on the application, but applicants should list as an alternate campus only a CSU campus that also offers the major. Generally, an alternate major will be considered at the first choice campus before an application is redirected to an alternate choice campus. The applications of persons denied admission to an impacted and/or closed campus may be re-routed to another campus at no cost, but only if the applicant is CSU eligible.

## Readmission

Students who break attendance by not enrolling in classes each semester, and who have not filed for educational leave, must reapply for admission. Transcripts of work completed elsewhere during the absence must also be submitted. Students who left under academic disqualification must submit an Academic Appeals Petition with their completed application prior to August 1 for the Fall semester or December 1 for the Spring semester.

## Impacted Programs

The CSU designates programs as impacted when more applications are received in the initial filing period (October and November for fall terms, August for spring terms) than can be accommodated. Some programs are impacted at every campus where they are offered; others are impacted only at some campuses. Candidates for admission must meet supplementary criteria if applying to an impacted program.

The CSU will announce during the fall filing period those programs that are impacted and the supplementary criteria campuses will use. That announcement will be published in the CSU Review distributed to high school and college
counselors, and made available online at www.calstate.edu/ AR/csureview/. Information about the supplementary criteria also is sent to program applicants. Detailed impaction information is also available at www.calstate.edu/AR/ impactioninfo.shtml.

Applicants must file applications for admission to an impacted program during the initial filing period. If applicants wish to be considered for an impacted program at more than one campus, they must file an application to each.

## Supplementary Admission Criteria

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade-point average, completion of specified prerequisite courses, and a combination of campus-developed criteria. Applicants who are required to submit scores for either the SAT I or the ACT and are applying for fall admission should take the test as early as possible and no later than October of the preceding year if applying for fall admission.

The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the CSU Review and are made available by the campuses to applicants who seek admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major but may choose an alternate major either at the first choice campus or another campus.

## Application Filing Periods

| Terms in | Applications | Initial Filing |
| :--- | :--- | :--- |
| 2006-2007 | First Accepted | Period |
| Fall 2006 | October 1, 2005 | Oct 1 - Nov 30, 2005 |
| Spring 2007 | August 1, 2006 | August 1-31, 2006 |

## Filing Period Duration

Each non-impacted campus accepts applications until capacities are reached. Many campuses limit undergraduate admission in an enrollment category because of overall enrollment limits. Students applying after the initial filing period should consult the campus admissions office for current information. Similar information is conveniently available at http://www.csumentor.edu/filing_ status/Default.asp.

## Application Acknowledgment

On-time applicants may expect to receive an acknowledgment from their first-choice campus within two to four weeks after filing the application. The notice may also include a request that additional records be submitted necessary for the campus to evaluate academic qualifications. Applicants may be assured of admission if the evaluation of relevant qualifications indicates that applicants meet CSU admission requirements and campus requirements for admission to an impacted program. Unless specific written approval/confirmation is reviewed, an offer of admission is not transferable to another term or to another campus.

## Undergraduate Requirement Deadlines

Prior to matriculation, students must complete, in a timely manner, admission requirements - including subject requirements, unit minimums, and grade-point averages. Refer to the Enrollment Services web site (www.csulb.edu/ enrollment) for current requirements.

## Intrasystem and Intersystem Enrollment Programs

Upper-division students enrolled at any CSU campus will have access to courses at other CSU campuses on a space available basis unless those campuses or programs are impacted. This access is offered without students being required to be admitted formally to the host campus and sometimes without paying additional fees. Although courses taken on any CSU campus will transfer to the student's home CSU campus as at least elective credit, students should consult their home campus academic advisors to determine how such courses may apply to their degree programs before enrolling at the host campus.

There are two programs for enrollment within the CSU and one for enrollment between CSU and the University of California or California Community Colleges. Additional information about these programs is available from Office of Enrollment Services.
CSU Concurrent Enrollment - matriculated students in good standing may enroll at both their home CSU campus and a host CSU campus during the same term. Credit earned at the host campus is automatically reported at the student's request to the home campus to be included on the student's transcript at the home campus.
CSU Visitor Enrollment - matriculated students in good standing enrolled at one CSU campus may enroll at another CSU campus for one term. Credit earned at the host campus is reported automatically at the student's request to the home campus to be included on the student's transcript at the home campus.
Intersystem Cross Enrollment - matriculated CSU, UC, or community college students may enroll for one course per term at another CSU, UC, or community college and request that a transcript of record be sent to the home campus.

## Concurrent Enrollment Within the CSU

All CSULB students wishing to enroll concurrently at CSULB and one of the other 23 California State University campuses must request permission to do so from the Office of Enrollment Services. Concurrent enrollment within The California State University system is limited to students who have completed a minimum of 12 units at CSULB, have a minimum 2.0 grade-point average, are in good academic standing and have paid fees at CSULB for 12 units or more regardless of the total number of units earned at both campuses. No additional fees may be collected after the last day to add classes. Concurrent Enrollment is subject to space availability and registration priority policies at the host campus.

No graduate student may register concurrently at this and any other collegiate institution without advance permission. Permission may be given for concurrent enrollment at CSULB and other institutions if recommended
by the department graduate advisor and approved by the Dean of the appropriate college. Forms for concurrent enrollment may be obtained from the college office. When such permission is granted, the academic load at CSULB must be reduced accordingly.

## Visitor Enrollment Within the CSU

Students enrolled in any CSU campus may apply to transfer temporarily to another CSU campus in Visitor status, if they have (1) completed 12 units at the home campus, (2) have earned at least a 2.0 cumulative GPA at the home campus, (3) are in good academic standing at the home campus, and (4) are eligible to register under continuing status at the home campus. Approval for visitor enrollment is valid for one term only and is subject to the host campus policies including application deadlines, space availability, and registration priority. Details and Visitor Enrollment Applications are available at the Office of Enrollment Services. Students from other CSU campuses seeking visitor status at CSULB must also contact their home registration office for additional information.

## Other Applicants

Applicants not admissible at this time under any of the preceding provisions are advised to enroll in another institution, such as a community college, to prepare for admissibility at a future date.
Open University (Adjunct Enrollment) — Through Open University, students who are NOT matriculated in the University may take regular University classes for academic credit on a "seat available" basis with permission of the department chairperson and the course instructor. Open University enrollment does NOT constitute admission to CSULB. Students may apply up to 24 units of Open University Credit or Special Session credit earned in a non-matriculated status toward a baccalaureate degree. At the option of the appropriate college and department, up to 6 units may be applied to a graduate degree. This limit may be increased to 9 units in some instances. For specifics, check with the department chair. For more information call University College and Extension Services at (562) 985-5561.
University College and Extension Services - University College and Extension Services (UCES) programs are designed to meet the personal and professional development learning needs of the community. Through its credit and professional development (non-credit) classes, certificate programs, seminars and special programs, teleconferences, and customized worksite training, UCES brings the resources of CSULB to individuals and groups in formats convenient to their life/work situations. UCES' Integrated Distance Education for Adult Students (IDEAS) continuously develops courses for delivery on the World Wide Web. Unless they are offered in fulfillment of a degree program, Special Sessions courses do not require admission to CSULB. UCES also administers the winter session program, in addition to a variety of credit courses throughout the academic year. For a free bulletin of current offerings, call (562) 985-5561 or stop by the UCES office, located at Foundation Education Center (FND 104), 6300 State University Drive.

## Summer Session and Winter Session Students

Summer and Winter Sessions enrollment is open to all CSULB students, prospective students, students from other colleges and universities, and interested individuals from the community. No application or admissions process is required for summer and winter registration.

Registration in Summer as an Open University student does not insure the privilege of enrolling in the fall or spring semester. To register for Winter Sessions courses, students should contact University College and Extension Services at (562) 985-5561. To register for Summer Sessions, contact the Office of Enrollment Service, see http://www.csulb.edu/ depts/enrollment/summer/.

## Freshman Applicants

## Preparation and Eligibility

California State University, Long Beach continues to be the University of Choice for a talented and diverse group of California's best and brightest students. Beginning with Fall 2002, CSULB has been receiving more first-time freshman applicants than can be accommodated. To maintain the academic quality of CSULB academic programs and services, supplemental admissions criteria, are applied to first-time freshman applicants. First-time freshmen must:

- Apply on time, preferably on-line. Apply between October 1 and November 30.
- Take the SAT 1 or ACT preferably during October but no later than December and request scores be sent to CSULB.
- Complete the CSU required 15 unit course pattern prior to graduation.
- Perform well - earn the best grades possible (including the senior year).
- Pursue a back up plan should they not be offered admission to CSULB.
Students will qualify for regular admission when the university verifies that they have a CSULB qualifiable minimum eligibility index and will have completed the comprehensive pattern of college preparatory "a-g" subjects. Applicants to an impacted program must also meet supplementary criteria.


## Eligibility Index

The eligibility index is the combination of a high school grade-point average and a score on either the ACT or the SAT. Beginning with admission for Fall 2004, a grade-point average is based on grades earned in courses taken during the final three years of high school that satisfy all college preparatory "a-g" subject requirements with bonus points for approved honors courses (excluding physical education and military science).

Up to eight semesters of honors courses taken in the last two years of high school, including up to two approved courses taken in the tenth grade, can be accepted. Each unit of " A " in an honors course will receive a total of 5 points; with 4 points for a "B;" and 3 points for a "C."

A CSU Eligibility Index (EI) can be calculated by multiplying a grade-point average by 800 and adding a total score on the SAT I, the mathematics and critical reading scores of the SAT. Students who took the ACT, multiply the
grade-point average by 200 and add ten times the ACT composite score (add 2 points to the ACT score received if taken prior to October, 1989). California high school graduates (or residents of California for tuition purposes) need a minimum index of 2900 using the SAT I or 694 using the ACT to be considered for admission.

Persons who neither graduated from a California high school or are residents of California for tuition purposes, need a minimum index of 3502 (SAT I) or 842 ACT; ( 2 points are added to the ACT score if it was taken prior to October, 1989). Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.

California State University, Long Beach requires all applicants for freshman admission to submit test scores from the SAT I or ACT, regardless of their high school gradepoint average. No freshman applicants will be admitted who have not submitted the required test scores.

Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.

## Subject Requirements

The California State University requires that first-time freshman applicants complete, with grades of " $C$ " or higher, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school.
Social Science - 2 years to include 1 year of U.S. History and/or Government
English - 4 years
Mathematics - 3 years to include algebra, geometry, and intermediate algebra
Science - 2 years with laboratory to include 1 year of biological science and 1 year physical science
Foreign Language - 2 years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence).
Visual and Performing Arts - 1 year-long course in which the second semester builds on the first from a single VPA area to include art, dance, drama/theater, or music
Electives - 1 year selected from the areas above.

## Foreign Language Waiver

The foreign language subject requirement may be satisfied by applicants who demonstrate competence in a language other than English equivalent to or higher than expected of students who complete two years of foreign language study. Students should consult with their school counselor or any CSU campus admission or relations with schools office for further information.

## Subject Requirement Substitution for Students with Disabilities

Applicants with disabilities are encouraged to complete college preparatory course requirements if at all possible. If an applicant is judged unable to fulfill a specific course requirement because of his or her disability, alternate college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by the applicant's academic advisor or guidance counselor in consultation with the director of a CSU disabled student
services program. Although the distribution may be slightly different from the course pattern required of other students, students qualifying for substitutions will still be held for 15 units of college preparatory study. Students should be aware that course substitutions may limit later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the Director of Disabled Student Services at (562) 985-5401.

## Honors Courses

Grades, in up to eight semester courses designated as honors courses in approved subjects and taken in the last two years of high school, receive additional points in grade-point average calculations. Each unit of $A$ in approved courses will receive a total of 5 points; B, 4 points; C, 3 points; D, 1 point; and none for $F$ grades.

## High School Students - Young Scholars Program

Students still enrolled in high school who have preparation equivalent to that required of eligible California high school graduates will be considered for enrollment in certain special programs if recommended by the principal and by the appropriate CSULB department chair. Such admission is only for a specific program and does not constitute the right to continued enrollment. More information is available from the Office of University Outreach and School Relations

## Provisional Admission

California State University, Long Beach may provisionally admit first-time freshman applicants based on their academic preparation through the junior year of high school and planned for the senior year. The campus will monitor the senior year of study to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school. Students are required to submit an official transcript after graduation to certify that all course work has been satisfactorily completed. Official high school transcripts must be received prior to deadline set by the university. In no case may documentation of high school be received at any later than the census date for a student's first term of CSU enrollment. A campus may rescind admission decisions, cancel financial aid awards, and cancel any university registration for students, who are found not to be eligible after the final transcript has been evaluated.

## Lower-Division Transfer Applicants

Students who have completed college units after graduation from high school are considered a transfer student. Students who have completed fewer than 60 transferable semester college units (fewer than 90 quarter units) by the established deadlines are considered lowerdivision transfer students. CSULB does not currently accept applicants at the lower-division level.

## Upper-Division Transfer Applicants

Students who have completed 60 or more transferable semester college units ( 90 or more quarter units) by the established deadlines are considered upper-division transfer students. (See Undergraduate Requirement Deadlines above.)

CSULB is currently impacted for upper-division transfer students and may utilize supplemental criteria for upperdivision transfer admission. Upper-division transfer students from the Long Beach City College District will be admitted if they apply during the initial filing period and meet CSU systemwide admission eligibility criteria by the required deadlines. Transfer grade point average will be the principal component of the supplementary criteria. Upper-division transfer students who meet CSU systemwide admission eligibility criteria by the end of the spring smester, but who transfer from schools outside of the CSULB "local area" (Long Beach City College District) will be ranked according to grade point average and admitted until enrollment capacity has been reached. All upper-division transfer applicants must apply to a specific major. All students seeking admission to an impacted program or major must meet the supplemental admission criteria for the major. Students who are not admitted to the impacted program may be offered admission to an alternate major or will be offered redirection to another CSU campus that is accepting applications for that major. For more details, please check the campus website at www.csulb.edu/enrollment.

To be considered for admission to a non-impacted major as an upper-division transfer student, students must meet the following minimum standards by established deadlines:

1. have completed a minimum of 60 transferable semester units and have a GPA of at least 2.0 ("C" or better) in all transferable units attempted (non-residents must have a 2.4 GPA or better), and
2. in good standing at the last college or university attended, and
3. have completed at least 30 semester units of college coursework with a grade of C or better in each course at a level at least equivalent to courses that meet General Education requirements. (Courses are to be selected from English, arts and humanities, social science, science, and mathematics.) The 30 units must include all the General Education requirements in communication in the English language and critical thinking (at least 9 semester units) and the requirement in mathematics/ quantitative reasoning (usually 3 semester units) or the Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.

## International Student Applicants

The International Admissions component of the Center for International Education assists academically eligible international students to apply for admission to the University, and advises them of CSULB's financial, immigration and English language requirements. Throughout the students' attendance, the International Admissions staff is involved in their registration, evaluation of transfer credit, changes of majors, and graduation checks. Students are also counseled regarding their field of study requirements, which vary at both the undergraduate and graduate levels.

## International Admission Requirements

The CSU must assess the academic preparation of foreign students. For this purpose, "foreign students"
include those who hold U.S. visas as students, as exchange visitors, or as members of other nonimmigrant classifications.

The CSU uses separate requirements and application filing dates in the admission of foreign students. Verification of English proficiency (see the section on TOEFL
Requirement for undergraduate applicants), financial resources, and academic performance are all important considerations for admission. Academic records from foreign institutions must be on file by April 1st for the first term and, if not in English, must be accompanied by certified English translations.

Priority in admission is given to residents of California. There is little likelihood of nonresident applicants, including international students, being admitted either to impacted majors or to those majors or programs with limited openings.

CSULB encourages eligible international students to apply for undergraduate and graduate level studies. International students are defined as those who hold non-immigrant (student or exchange) visas. Application requests and questions should be directed to International Admissions (cie-admission@csulb.edu), located in the Center for International Education (BH 201).

International students need to complete a different application process than U.S. students. The following documents are required:

1. International application form;
2. $\$ 55.00$ application processing fee;
3. Affidavit of support from financial sponsor;
4. Bank statement/letter from financial sponsor;
5. Proof of acceptable English proficiency (usually met by the Test of English as a Foreign Language);
6. Official academic documents and certified English translations;
7. ACT or SAT (required for student athletes and graduates of U.S. high schools);
8. GMAT (required for graduate business majors only);
9. Letters of recommendation (graduate level applicants). Graduate applicants must check with their prospective departments for earlier deadlines.

Once all the documents are submitted to the International Admissions Office, eligibility for admission will be determined based on English proficiency and academic history, as well as other considerations. Graduate applications will be forwarded to the graduate departments for review by the graduate coordinators. Once admitted, international students will receive pre-arrival, arrival, and orientation information, and the appropriate immigration form and instructions on how to legally enter and/or remain in the U.S.

The Department of Homeland Security (DHS) requires that international students be aware of and follow DHS regulations to remain legally in the U.S. for the duration of their academic status. International students on "F" and "J" visas must be enrolled as full time students. Courses taken through the University College and Extension Services at CSULB or courses taken concurrently at other colleges nearby may only count toward full time status when
approved in advance of course registration by the Center for International Education. Questions about DHS policies may be directed to the Center for International Education.

The Examination in English as a Second Language (EESL) is a placement test required of admitted graduate students for whom English is a second language. Failure to take the EESL test will result in a registration hold placed on the student's record. Students may also be required to enroll in one or more English as a Second Language course(s) based on performance on the test. Please contact International Student Services for more information about EESL requirements and exemptions

## TOEFL Requirement

All undergraduate applicants whose native language is not English and who have not attended schools at the secondary level or above for at least three years full time where English is the principal language of instruction, must present a score of a minimum of 500 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 173 or above and those taking the Internetbased (iBT) test must score 61), unless the applicant:

1. has proof of at least three years attendance at a secondary level educational institution in a country where English was the principal language of instruction.* CSULB interprets "where English was the principal language of instruction" to mean that a school is located in a country where English is the native language (the daily medium of communication of the majority of residents is English), and that the students receive academic instruction in all subjects (except foreign language courses) at all levels of education in English, or
2. completed at least 56 transferable units from accredited U.S. community colleges and/or universities and earned a grade of A, B, or C in English 100 or its equivalent*, or
3. successfully completed CSULB's American Language Institute's Intensive English Language Program.* Undergraduate applicants who are U.S. Citizens or Permanent Residents of the U.S. and who are subject to the above TOEFL requirement may submit results from the English Language Proficiency Test (ELPT) in lieu of TOEFL. A score of 954 on the ELPT is required of such applicants.

EXCEPTION: Applicants applying for Film and Electronic Arts, which requires a 550 TOEFL score, and Journalism, which requires a 600 TOEFL score, will not be waived from the TOEFL requirement.
*For this exemption to remain valid, once having met the exemption, the student must not have left the U.S.A. for more than two years to reside or study in a country where English is not the predominant language of business, education and day-to-day societal functions.

## Insurance Requirement

Effective August 1, 1995, as a condition of receiving an I-20 or DS-2019 form, all F-1 and J-1 visa applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment in the California State University. Such insurance must be in amounts as specified by the United States Department of State and NAFSA: Association of International Educators. The campus President or designee will determine which insurance policies meet these criteria. Further information may be obtained from the Center for International Education, Brotman Hall 201, (562) 985-4106.

## Special Consideration

A very limited number of applicants who do not meet regular admission requirements may be considered by the University through an alternate screening process. As part of this review, admission may be offered based on institutional interests, special talents, or special circumstances. The authority to grant special admission is delegated to the Associate Vice President for Enrollment Services based on the recommendations of the appropriate campus committees.

## Admission as a Candidate for a Second Baccalaureate Degree

The University generally does not admit students who already hold a bachelor's degree for the purpose of seeking a second baccalaureate degree. Exceptions are made only in the case of students seeking their second undergraduate degree in fields for which there is an identified critical need: nursing, engineering, science, and mathematics. Candidates for a second baccalaureate degree should apply using the graduate application.

## Graduate and Postbaccalaureate Applicants

All graduate and post-baccalaureate applicants (e.g., joint PhD and EdD applicants, master's degree applicants, those seeking credentials, and those interested in taking courses for personal or professional growth) must file a complete graduate application as described in the graduate and post-baccalaureate admission booklet materials at www. csumentor.edu. Applicants seeking a second bachelor's degree should submit the undergraduate application for admission. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the $\$ 55$ nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Applications may be obtained from the Graduate Studies Office or the Admissions Office of any

California State University campus. An electronic version of the CSU graduate application is available on the World Wide Web at http://www.csumentor.edu. Applications submitted by way of www.csumentor.edu are preferable.

## Graduate and Postbaccalaureate Admission Requirements

Graduate and postbaccalaureate applicants may apply for a degree objective, a credential or certificate objective. Depending on the objective, the CSU will consider an application for admission as follows:

General Requirements - The minimum requirements for admission to graduate and postbaccalaureate studies at CSULB are in accordance with university regulations as well as Title 5, Chapter 1, Subchapter 3 of the California Code of Regulations. Specifically, a student shall at the time of enrollment: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or is to have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have attained a grade-point average of at least $2.5(A=4.0)$ in the last 60 semester ( 90 quarter) units attempted (excluding lowerdivision and extension course work taken after the degree); and (4) satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as appropriate campus authorities may prescribe. In unusual circumstances, a campus may make exceptions to these criteria.

Students who meet the minimum requirements for graduate and postbaccalaureate studies will be considered for admission in one of the three following categories:

Postbaccalaureate Classified - Students who wish to enroll in a credential or certificate program, they will be required to satisfy professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or
Graduate Conditionally Classified - Students may be admitted to a graduate degree program in this category if, in the opinion of appropriate campus authorities, they can remedy deficiencies by additional preparation; or
Graduate Classified - To pursue a graduate degree, students will be required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus.

## Graduate and Postbaccalaureate TOEFL

## Requirement

All graduate and postbaccalaureate applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must demonstrate competence in English. These students must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 213 or above), unless the applicant:

1. Submits proof of having obtained a bachelor's degree from an accredited post-secondary institution where English was the principal language of instruction. CSULB interprets "where English is the principal language of instruction" to mean that a school is located in a country where English is the native language (the daily medium of communication of the majority of residents is English), and the applicant received academic instruction in all subjects (except foreign language courses) at all levels of education in English, or
2. Notification from CSULB's American Language Institute that the applicant has successfully completed levels 5 and 6 of the American Language Institute Program.
EXCEPTION: Applicants applying for Public Policy and Administration, which requires a 600 TOEFL, will not be waived from the TOEFL requirement. Also, for this exemption to remain valid for other students, once having met the exemption, the student must not have left the U.S.A. for more than two years to reside or study in a country where English is not the predominant language of business, education and day-to-day societal functions.

## Application to Credential Programs

Students planning to enroll in credential programs must also file an application for admission to the University.

Information on application to credential programs is available from the appropriate department or program coordinator.
Note: Some programs have established application periods each year which are separate from the University application periods and process.

## Auditors

Persons who have not been accepted by the University for the semester they wish to attend may request permission to audit courses through University College and Extension Services.

Students who have been accepted by the University may audit courses. See the regulation under "Grades and Administrative Symbols." The deadline to declare an "audit" grade option is the end of the third week of instruction. Follow the instructions in the Schedule of Classes for requesting a course as an "audit" grading option. At the end of the semester the instructor will assign an "audit" grade to the official grade sheet which will be forwarded to the Office of Enrollment Services for recording. Courses taken for audit may be repeated in subsequent terms for credit.

Courses successfully audited are listed on the student's academic record but carry no credit or grade points.

## Returning Students

Returning students must reapply to the university under the same conditions and deadlines as all other applicants.

Students who have not maintained continuous attendance status are subject to the General Education requirements in effect at the time of their re-entry to the University with the following exceptions:

Previous CSULB students who completed their entire lower-division general education package before returning to CSULB, will not be held for additional general education requirements except for the 9 upper-division capstone general education units.

Previous CSULB students who were under the pre-1981 general education requirements AND who before leaving the University completed 90 or more units, including 24 general education units in categories 1-5 (with at least one course in each area) will not be held to post-1981 general education requirements other than the requirement of 9 upper-division units. Such students may satisfy the general education mandate by completing the pre-1981 40-unit requirements appropriately and completing the 9 unit upper-division requirement (overlap is permitted).

California Community College transfer students who provide official full certification of general education requirements will not be held for additional general education requirements except for the 9 upper-division capstone general education units including the Human Diversity requirement.

## Hardship Petitions

The campus has established procedures for consideration of qualified applicants who would be faced with extreme hardship if not admitted. Petitioners should write the campus Admissions Office regarding specific policies governing hardship admission. (See Admissions Procedures and Policies at the beginning of this Section.)

## Adult Students

As an alternative to regular admission criteria, an applicant twenty-five years of age or older may be considered for undergraduate admission as an adult student who meets all the following conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development or the California High School Proficiency Examination).
2. Has not been enrolled in college as a full-time student for more than one term during the past five years.
3. If there has been any college attendance in the last five years, has earned a "C" average or better in all college work attempted.
Consideration will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language and mathematical computation.

## Senior Citizen Education Program

The Senior Citizen Education Program enables eligible California residents 60 years of age or older to enroll as regular students at a cost of $\$ 3.00$ per semester. The program, which was founded at CSULB, has been in operation since 1975. Individuals are attending courses in a variety of subject areas and class levels from freshman through graduate standing.
Note: Regular admission standards apply. Requests to waive the application filing fee must accompany the application. Once admitted to the University, students will be sent registration information advising them of the procedures for fee payment and the dates that they may register. Courses are available to program participants approximately three weeks before the beginning of each semester on a "space available" basis. Due to high enrollment and impacted programs some courses may not be available for participation by Senior Citizens.
Participants in the Senior Citizen Education Program are required to maintain good academic standing and are subject to all university policies, procedures, late fee payments and deadlines.

## Testing Requirements

The office of Testing and Evaluation Services provides Information regarding admissions, placement, and certification examinations. The office is located in Brotman Hall 216. For information, phone (562) 985-4007, FAX (562) 985-2415, or visit the Testing Office website at www.csulb. edu/testing.

Test programs currently offered include the SAT and Achievement Tests, ACT, EPT/ELM, WPE, PRAXIS, and the Nelson-Denny Reading Test. Information racks immediately outside the office offer registration bulletins for the abovementioned exams as well as the MCAT, LSAT, CSET, CBEST, GRE, RICA, and TOEFL exams.

The Testing Office also provides services to faculty, staff and administrators regarding research design, questionnaire construction and data analysis.

Freshman applicants must submit SAT I and/or ACT scores directly to CSULB. Students should take these tests no later than December of the prior year. Registration forms and the dates for the SAT and/or ACT are available from high school or college counselors or from a CSU campus testing office. Students may also write to or call:

| The College Board (SAT I) | ACT Registration Unit |
| :--- | :--- |
| Registration Unit, Box 6200 | P.O. Box 414 |
| Princeton, NJ 08541-6200 | lowa City, lowa 52240 |
| (609) 771-7588 | (319) 337-1270 |
| www.collegeboard.com | www.act.org |

Complete information regarding these tests may be found at www.csulb.edu/testing.

## Systemwide Placement Test Requirements

The California State University requires each entering undergraduate, except those who qualify for an exemption, to take the CSU Entry Level Mathematics (ELM) examination and the CSU English Placement Test (EPT) prior to enrollment. These placement tests are not a condition for admission to the CSU, but they may be a condition of enrollment. They are designed to identify entering students who may need additional support in acquiring basic English and mathematics skills necessary to succeed in CSU baccalaureate-level courses. Undergraduate students who do not demonstrate college-level skills both in English and in mathematics will be placed in appropriate remedial programs and activities during the first term of their enrollment. Students placed in remedial programs in either English or mathematics must complete all remediation in their first year of enrollment. Failure to complete remediation by the end of the first year may result in denial of enrollment for future terms.

Students register for the EPT and/or ELM at their local CSU campus. Questions about test dates and registration materials may be addressed to Testing and Evaluation Services, Brotman Hall (BH) - 216 or by calling (562) 9852007.

## English Placement Test (EPT)

The EPT is designed to assess the level of reading and writing skills of entering undergraduate students so that they can be placed in appropriate baccalaureate-level courses. The CSU EPT must be completed by all entering undergraduates, with the exception of those who present proof of one of the following:

- A score of "Exempt" on the augmented English CST, i.e., the CSU Early Assessment Program (EAP), taken in grade 11.
- A score of 550 or above on the verbal section of the College Board SAT I Reasoning Test taken April 1995 or later.
- A score of 24 or above on the enhanced ACT English Test taken October 1989 or later.
- A score of 680 or above on the re-centered and adjusted College Board SAT II: Writing Test taken May 1998 or later.
- A score of 3,4 , or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Scholastic Advanced Placement program.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) written communication requirement, provided such course was completed with a grade of "C" or better.
To file for one of the above exemptions, students may
obtain an Exemption Form from www.csulb.edu/testing
(select EPT from the menu) or call Testing and Evaluation
Services (562) 985-4007. Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirement. The materials may be obtained from Testing and Evaluation Services.


## Entry-Level Mathematics (ELM) Examination Placement

The ELM examination is designed to assess the skill levels of entering CSU students in the areas of mathematics typically covered in three years of rigorous college preparatory mathematics courses in high school (Algebra I, Algebra II, and Geometry). The CSU ELM must be completed by all entering undergraduates, with the exception of those who present proof of one of the following:

- A score of "Exempt" on the augmented mathematics CST, i.e., the CSU Early Assessment Program (EAP), taken in grade 11.
- A score of "conditionally exempt" on the augmented CST, i.e., the CSU Early Assessment Program (EAP) plus successful completion of a Senior-Year Mathematics Experience (SYME).
- A score of 550 or above on the mathematics section of the College Board SAT I Reasoning Test or on the College Board SAT II Mathematics Tests Level I, IC (Calculator), II, or IIC (Calculator).
- A score of 23 or above on the American College Testing Mathematics Test.
- A score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC) or Statistics examination.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) quantitative reasoning requirement, provided such course was completed with a grade of "C" or better.
To file for one of the above exemptions, students may obtain an Exemption Form from www.csulb.edu/testing
(select ELM from the menu) or call Testing and Evaluation Services (562) 985-4007. Information bulletins and registration materials for the ELM will be mailed to all students subject to the requirements. Required exams will be indicated in the Letter of Admission. The materials may also be obtained from Testing and Evaluation Services.


## Advanced Placement Credit

California State University, Long Beach grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement (AP) Program of the College Board. Students who present scores of three or better will be granted up to six semester units (nine quarter units) of college credit for each AP course. Refer to the Advanced Placement Examination Credit table in the Academic Information section of this Catalog.

More specific information is available from the Office of Enrollment Service at (562) 985-5471 or a student's major department.

## International Baccalaureate Credit

Students with scores of 5 or higher in International Baccalaureate Higher Level courses will be awarded baccalaureate credit of 4 to 10 units, depending on course equivalency. Applicants to CSULB who wish to obtain lower-division course credit for completed International Baccalaureate Higher Level examinations must submit an official IB transcript. Course equivalency for Higher Level examinations completed with a grade of 5 or higher is listed in the International Baccaluareate Examination Credit table in the Academic Information section of this Catalog

For questions or information, please call the Office of Enrollment Service at (562) 985-5471 or consult the department.

## Immigration Requirements for Licensure

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), also known as the Welfare Reform Act, includes provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. Information concerning these requirements is available from Academic Affairs, (562) 985-4128.

## Immunization Requirements

Students enrolled in a California school for the seventh grade or higher on or after July 1, 1999 will have satisfied the requirements for Hepatitis B and for Measles/Rubella. Entering CSULB students who have not satisfied these requirements must comply with the following requirements. These are not admission requirements, but students who do not satisfy them will not be permitted to enroll in the California State University. Failure to comply will result in a "hold" on future registration.

- Measles and Rubella Immunization: All new and
readmitted students born after January 1, 1957 must provide proof of full immunization against measles and rubella prior to enrollment.
- Hepatitis B Immunization: All first time enrollees 18 years of age or younger at the start of their first term at CSULB must provide proof of full immunization against Hepatitis $B$ before enrolling. Full immunization against Hepatitis $B$ consists of three timed doses of vaccine over a minimum 4 to 6 months period.
- Meningococcal Disease Information: Each incoming freshman who will be residing in on-campus housing will be required to return a form to housing indicating that they have received information about meningococcal disease and the availability of the vaccine.
References: CSU Executive Order No. 803 Immunization Requirements / California Assembly Bill 1107.

Measles/Rubella \& Hepatitis B clearance is obtained by presenting to Student Health Services 1) a medical immunization record showing dates of shots given, or 2) a record of blood tests showing immunity, or 3) receiving immunization(s). or 4) making a request for medical or personal religious exemption. Students may receive the immunizations from their health care provider, HMO, or Public Health Department at low, or no cost. Immunizations may also be obtained at Student Health Services with no charge for Measles and Rubella and at Student Health Services cost for each Hepatitis B injection (series of 3). Acceptable proof may be by records from high school, private health care providers, and local health departments. For more information call (562) 985-4771, or visit the website www.csulb.edu/shs. Other useful vaccine information is available through the United States Centers for Disease Control National Immunization Program www. cdc.gov/nip/publications/VIS/default.htm.

## Student Selection and Denial

The University reserves the right to select its students and deny admission to the University or any of its programs as the University, in its sole discretion, determines appropriate based on an applicant's suitability and the best interests of the University.

## Estimated Expenses

Students should be prepared to meet expenses for fees within 30 days of registration. Books should be purchased when classes begin. Other expenses are ongoing and must be anticipated monthly and included in the total cost of attendance. Expenses generally go up an average three to four percent per year. Actual costs depend upon where the student lives and if there are dependent children. Financial aid programs are designed to help students meet standard University-related expenses during the academic year. The following budgets will assist students in planning costs for average expenses: (Costs include University fees, books and supplies, room and board, personal miscellaneous and transportation based on 2005-2006 CSULB budgets.)
Student living at home with parents (nine month term) ...... \$10,106 Student living in a residence hall (nine month term)........... \$12,708 Single student living off-campus (apartment, house nine month term, assumes shared housing) ..................... \$15,424

## Housing

## University Residence Halls

The campus residence hall complex consists of 18 halls and accommodates 1,962 residents, including an International House complex which houses 86 students. All halls are coeducational and the majority of rooms are intended for double occupancy.

Residents may apply to reside in two-story halls utilizing suite designs or more traditional halls which have double rooms on either side of a long corridor. Halls are available with Regular Quiet Hours or Very Quiet Hours and residents may select 12 or 19 meals per week. A limited number of regular single rooms is available. The room and board rate is approximately $\$ 6,600-\$ 7,000$ depending on the accommodations and meal plans selected.

Applications for the academic year are accepted between January 1 and February 26. Housing spaces will be assigned in application order. Licenses will be mailed on March 17 to all students who apply by the priority deadline of February 26. The license agreement and payment must be received in the Housing Office by 5:00 p.m. on April 21 to retain priority ranking in application order. Students who apply after February 26 will be placed on a first-paid, firstserved waiting list. Applications are available online at www. housing.csulb.edu.

## Off-Campus Housing

An off-campus housing website is available to provide the maximum amount of information on vacant rental properties in the surrounding community while minimizing the time required to do a search. The website features comprehensive rental information including photographs, virtual tours and driving instructions. Searching the database may be refined as needed - for example, by neighborhood or by price range - and is free to students, faculty and staff. Students also may use the site to list vacant rental property or to look for a roommate to share accommodations. The website is provided as a service to CSULB by My Ideal Home Network and may be viewed at www.housing.csulb.edu/offcampus.

## FEES AND FINANCIAL AID

## Fees

All Students
Application Fee (nonrefundable), payable by check or money order at time application is made: $\$ 55.00$. These fees are subject to change. Check the current Schedule of Classes for fees each semester.

## Undergraduate

State University Fee (per semester)
6.1 units or more ..... \$1260.00
0 units to 6.0 units ..... $\$ 732.00$
Other Mandatory Activity Fees (per semester)
Facilities Fee .....  $\$ 3.00$
Instructionally Related Activities Fee (IRA). ..... \$25.00
Associated Students Inc. Fee ..... $\$ 44.00$
University Student Union Fee ..... $\$ 50.00$
Student ID Card .....  5.00
Student Health Services Fee ..... $\$ 45.00$
Total Resident Fees Per Semester
0.1 to 6.0 units .....  $\$ 1021.00$
Total Resident Fees Per Semester
6.1 or more units. ..... \$1633.00
Credential Program Participants
State University Fee (per semester)
6.1 units or more ..... $\$ 1461.00$
0 units to 6.0 units ..... $\$ 849.00$
GraduateState University Fee (per semester)
6.1 units or more. .....  $\$ 1551.00$
0 units to 6.0 units .....  $\$ 900.00$
Other Mandatory Activity Fees (per semester)
Facilities Fee ..... $\$ 3.00$
Instructionally Related Activities Fee (IRA) ..... $\$ 25.00$
Associated Students Inc. Fee ..... $\$ 44.00$
University Student Union Fee ..... $\$ 50.00$
Student ID Card ..... $\$ 1.00^{*}$
Student Health Services Fee ..... $\$ 35.00$
Total Resident Fees Per Semester
0.1 to 6.0 units ..... $\$ 812.00$
Total Resident Fees Per Semester
6.1 or more units. ..... \$1286.00
Mandatory systemwide fees are waived for thoseindividuals who qualify for such exemption under theprovisions of the California Education Code (see section onfee waivers).

## Nonresident Students (U.S. and Foreign) Tuition

Non-Resident Tuition is charged to all U.S. non-California residents and Foreign students. Tuition is $\$ 339.00$ per unit, in addition to applicable State University and Other

Mandatory Fees. (Tuition is subject to change by State Legislative action without notice.)

The total nonresident tuition paid per term will be determined by the number of units taken. The maximum nonresident tuition per academic year (as of 2005-06) is $\$ 10,170.00$ (Fall and Spring terms). Summer term is not part of the regular academic year.

No fees of any kind will be required of or collected from those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarship Act, AB540, or other applicable legislation.

## Optional Fees (per semester)

The following represents rates for the Fall 2006 and Spring 2007 semesters and are subject to change.
Motorcycle and Moped Parking (per semester).................... $\$ 24.50$
Automobile Parking (per semester)..................................... $\$ 98.00$
Replacement Parking Permit...........................................Full Price
Other Fees and Charges (non-refundable)
Late Registration . $\$ 25.00$
Application and Reapplication Fee ...................................... $\$ 55.00$
Diploma/Commencement Fee ........................................... $\$ 37.00$
Missed Deadline Fee..........................................................\$10.00
Dishonored Check and Echeck Charge .............................. $\$ 20.00$
(If the Dishonored Check was for payment of registration
fees, the Late Registration Fee may also apply)
Disputed Credit Card Charge . $\$ 10.00$
Complete transcript of record ............................................... $\$ 4.00$
Replacement of Student ID Card........................................... $\$ 5.00$
Late Payment Fee .............................................................. $\$ 10.00$
REMINDER: Fees are Subject to Change Without Advance Notice. You are responsible for the immediate payment of any approved fee increase. The CSU Trustees are considering an increase in fees.

## Parking Fee

Parking at CSULB is limited. Parking permits are required 24 hours a day, Monday through Friday, and the vehicle code is enforced at all times. Please contact the Parking Office (562) 985-4146 for additional information.

To request a partial or full refund, attach all parking documents, permits stickers, decals and gate cards to the refund application and return to Student Account Services, Windows \#8-10, Brotman Hall 148. Refer to the Schedule of Classes for deadline information. If parking documents are not available or have not been received, students MUST contact the Parking Administration Office located on Merriam Way adjacent to the parking structure. If any of these parking documents are affixed to the vehicle, their removal by a campus security officer or under the officer's direction, shall constitute appropriate return. Attach all parking documents, permits stickers, decals and gate cards to the refund application and return to Student Account Services, BH 148 Window \#8-10. There shall be no refund if such amount is less than $\$ 5$.

There shall be no refund for:

1. Coin operated parking meters.
2. Daily permits for coin operated parking gates.
3. Special events.
4. Fees paid by monthly payroll deductions.

## Auditors

Students enrolled as auditors, not for credit, are exempt from payment of the application fee, but must pay fees appropriate to the number of units taken.

## Payments

Total fees include the State University Fee, Non-Resident Tuition, other campus mandatory fees as well as course fees. Payment of fees is required 30 calendar days after registration, or approximately 12 days prior to the first day of instruction, whichever is earlier. For payment deadlines, refer to the Schedule of Classes. Payment must be received by the due date or the student's registration request may be cancelled; postmarks are not accepted. Students who have not completed their registration before 12 days prior to the first day of instruction, must make payment within 24 hours of their registration.

Students are encouraged to make immediate payment to confirm their enrollment requests as classes fill quickly due to CSULB's high enrollment. They may also make a payment before registering (i.e. a deposit), if they choose.

Payment can be satisfied by cash, check, Echeck, credit card, Financial Aid deferments, actual Financial Aid awards, approved payment plans, other approved fee deferments, approved private scholarships, approved tuition waivers, or confirmed third party sponsors. Payments can be made in the following ways:

- Check
- In person at the Cashiers Windows, Brotman Hall 148
- Mailed to the Cashiers, Brotman Hall 148, CSULB, 1250 Bellflower Blvd., Long Beach, CA 90840-0103
- Cash
- In person only at the Cashiers Window, Brotman Hall 148
- ECheck (self service over the web at http://my.csulb.edu)
- Credit Card

Payment of student fees can be made by credit card (Discover, American Express, or MASTERCARD VISA not accepted - only) at:

- Self-Service/Smart Pay - over the web at http:// my.csulb.edu (Smart Pay charges a 2.9\% convenience fee)
- Self-Service over the web at http://my.csulb.edu

Payment of fees CANNOT be made if disputed credit card charges exist on your account.
Contact Student Account Services, Windows 8, 9, 10 for further information.

## Short Term Loans

A limited number of short term loans to assist in paying for registration fees, books, or authorized emergencies are available to qualified students on a first come, first served basis. Information about this program is available at Brotman Hall 148, Cashiering Windows \#8-10. Recorded Information is available by calling (562) 985-4167.

## Installment Payment Plan

The Installment Payment Plan is available to all eligible students except financial aid recipients who have sufficient funds to cover the State University Fee. A \$33 nonrefundable charge is assessed to defer the administrative costs of the program. A 9\% service charge is assessed to the deferred balance for non-resident tuition and international Visa students. An Installment Plan Contract must be obtained from Brotman Hall 148, Cashiering Windows \#8-10 before submitting payment.

## Refund of Fees Including Nonresident Tuition

Regulations governing the refund of mandatory fees, including nonresident tuition, for students enrolling at the California State University are included in Section 41802 of Title 5, California Code of Regulations. For purposes of the refund policy, mandatory fees are defined as those systemwide fees and campus fees that are required to be paid in order to enroll in state-support academic programs at the California State University. Refunds of fees and tuition charges for self-supported programs at the California State University (courses offered through extended education) are governed by a separate policy established by the university.

In order to receive a full refund of mandatory fees, including nonresident tuition, a student must cancel registration or drop all courses prior to the first day of instruction for the term. Information on procedures and deadlines for canceling registration and dropping classes is available in the Schedule of Classes.

For state-supported semesters, quarters, and nonstandard terms or courses of four (4) weeks or more, a student who withdraws during the term in accordance with the university's established procedures will receive a refund of mandatory fees, including nonresident tuition, based on the portion of the term during which the student was enrolled. No student withdrawing after the 60 percent point in the term will be entitled to a refund of any mandatory fees or nonresident tuition.

For state-supported semesters, quarters, and nonstandard terms or courses of less than four (4) weeks, no refunds of mandatory fees and nonresident tuition will be made unless a student cancels registration or drops all classes prior to the first day in accordance with the university's established procedures and deadlines.

Students will also receive a refund of mandatory fees, including nonresident tuition under the following circumstances:

- The tuition and mandatory fees were assessed or collected in error;
- The course for which the tuition and mandatory fees were assessed or collected was cancelled by the university;
- The university makes a delayed decision that the student was not eligible to enroll in the term for which mandatory fees were assessed and collected and the delayed decision was not due to incomplete or inaccurate information provided by the student; or
- The student was activated for compulsory military service.

Students who are not entitled to a refund as described above may petition the university for a refund demonstrating
exceptional circumstances and the chief financial officer of the university or designee may authorize a refund if he or she determines that the fees and tuition were not earned by the university.

Information concerning any aspect of the refund of fees may be obtained from the Student Account Services Office.

## Refunds of Registration and Tuition Fees

Details regarding Registration and Tuition Fee Refunds may be found in the Schedule of Classes. As this information may differ from one semester to another, students are advised to refer to the Schedule of Classes for that particular semester. Students must complete the class drop or withdrawal process prior to becoming eligible for any credit of fees. The amount to be refunded is determined by the effective withdrawal or drop date. In addition, any other outstanding financial obligations that the student may have incurred will be deducted from any credits due to the student before a refund is processed. Refund deadlines are reflected in the Schedule of Classes. A $\$ 10.00$ processing fee will be withheld from the refunds.

Details regarding refunds due to Medical Withdrawals can be found in the Schedule of Classes.

Further details regarding fees that may be refunded and the circumstances under which they may be refunded may be obtained by consulting the California Code of Regulations, Title V , in the following sections:

Registration and Tuition Fees - Section 41802
Parking Fees - Section 42201
Housing Fees - Section 42019
The following fees are non-refundable: Late Fees, Application Fees, Disputed Credit Card Fees, Dishonored Check Fees, Student I.D. Card Replacement Fees, Late Payment Fees.

## Special Circumstances Refunds

There are two levels of financial appeals. They are as follows:
I. Request for Refunds After Published Deadlines:

Students who withdraw or drop in units after the deadlines detailed in the Schedule of Classes have passed, may appeal for a Special Circumstances Refund based on the following:

1. Campus Variation
2. Compulsory Military Service
3. Death of Student
4. Fees Collected in Error

Further information regarding Special Circumstances
Refunds may be obtained from the current semester's
Schedule of Classes or by calling the Student Account
Services Office at (562) 985-4167.
II. Financial Appeals Independent Review Committee (F.A.I.R.)

If a student wishes to petition the decision made at the first appeal level, a written request must be submitted to the F.A.I.R. Committee (BH 155) for review.
This Committee has been approved by the President as the final financial appeal level. It consists of representatives from various University Offices. F.A.I.R. will only review appeals for the current academic year.

## Determination of Residence for Nonresident Tuition Purposes

The campus Office of Enrollment Services is responsible for determining the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission, Residency Questionnaire, and Reclassification Request Form, and, as necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence for tuition purposes at the California State University is found in California Education Code, sections 68000-68090, 68120-68134, and 89705-89707.5, and California Code of Regulations, Title 5, Subchapter 5, Article 4 , sections 41900-41916. This material can be viewed on the Internet by accessing the California State University's website at www.calstate.edu/GC/resources.shtml.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, an unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of an unmarried minor who has a parent living cannot be changed by the minor's own act, by the appointment of a legal guardian or by the relinquishment of a parent's right of control.

A married person may establish his or her residence independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required to complete a supplemental questionnaire including questions concerning their financial dependence, which will be considered along with physical presence and intent in determing reclassification.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term. The residence determination dates are: Fall

- September 20; Spring - January 25; Summer - June 1.

There are exceptions from nonresident tuition including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues until the student has resided in the state the minimum time necessary to become a resident;
2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time. The exception continues until the student has resided in the state the minimum time necessary to become a resident;
3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult or adults, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year. The exception continues until the student has resided in the state the minimum time necessary to become a resident.;
4. Dependent children and spouse of persons in active military service stationed in California on the residence determination date. Graduate students are eligible for this exception for one academic year of continuous enrollment, the length of time necessary to establish California residency. There is no time limitation on this exception unless the military person transfers out of California or retires from military service. If either of those events happen, the student's eligibility for this exception continues until he or she resides in the state the minimum time necessary to become a resident;
5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception is available to the graduate student military member for no more than one academic year of continuous enrollment, the length of time necessary to establish California residency. The
undergraduate student military member is eligible for this exception for as long as he or she is stationed in California as an active member of the military.
6. Military personnel in active service in California for more than one year immediately prior to being discharged from the military. Eligibility for this exception runs from the date the student is discharged from the military until the student has resided in state the minimum time necessary to become a resident.
7. Dependent children of a parent who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as continuous residence is maintained at an institution.
8. Graduates of any school located in California that is operated by the United States Bureau of Indian Affairs, including, but not limited to, the Sherman Indian High School. The exception continues so long as continuous attendance is maintained by the student at an institution.
9. Certain credentialed, full-time employees of California school districts;
10. Full-time State University employees and their children and spouses; State employees assigned to work outside the State and their children and spouses. This exception continues until the student has resided in the state the minimum time necessary to become a California resident; 11. Children of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties;
11. Certain amateur student athletes in training at the United States Olympic Training Center in Chula Vista, California. This exception continues until the student has resided in the state the minimum time necessary to become a resident;
12. Federal civil service employees and their natural or adopted dependent children if the employee has moved to California as a result of a military mission realignment action that involves the relocation of least 100 employees. This exception continues until the student has resided in the state the minimum time necessary to become a resident;
13. State government legislative or executive fellowship program enrollees. The student ceases to be eligible for this exception when he or she is no longer enrolled in the qualifying fellowship.
14. Persons who have attended a California high school for at least three years and have graduated from a California high school or equivalent. Please Note: Those who hold non-immigrant visas (i.e. F, J, B, H, etc.) are not eligible
for this exception. Those seeking this exception must fill out the Student Affidavit for Exemption of Nonresident Tuition form, which is available at www.csulb.edu/ enrollment. Once this exception is approved, it is not necessary to reapply each semester. This is the only exception for which this is true.
Students classified as non-residents may appeal a final campus decision within 120 days of notification by the campus. A campus residence classification appeal must be in writing and submitted to: The California State University, Office of General Counsel, 401 Golden Shore, 4th Floor, Long Beach, California 90802-4210. The Office of General Counsel can either decide the appeal or send the matter back to the campus for further review.

Students incorrectly classified as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Code of Regulations. Resident students who become nonresidents, or who no longer meet the criteria for an exception, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous term are not accepted.n

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.

Changes in residency for tuition purposes are not automatic. Students wishing to apply for residence reclassification must submit a Residence Reclassification Request Form and supporting documentation. The filing period for a spring term is from October 1 through November1; the filing period for a fall or summer term is from March 1 through April 1. A ten-dollar late filing fee must accompany requests filed after the last date of the filing period. Under no circumstances will a reclassification request be accepted for a term that has ended.

Exceptions from nonresident tuition are valid for one semester only. Students must reapply for an exemption each semester. Forms are located at the Office of Enrollment Services, BH 101.

## Financial Obligations and Holds

University offices, including but not limited to the Library, may request that a student reimburse the University for an item that was not returned, returned late or damaged; or they may impose other charges. The requesting office may ask the Student Account Services Office to post this charge to the student's account. Once posted it becomes an obligation to the student. Student Account Services will be able to provide general information concerning obligations. The student will be directed to the appropriate department in which to inquire about the obligation. Until all obligations are paid, or a written release from the originating office is received by the Student Account Services Office, a financial
hold will be placed on academic records and the student is restricted from receiving University services, including but not limited to registration, grades, and transcripts. If the obligation continues to appear on the University reports, the student's name will be submitted to the Franchise Tax Board. In this case, the student or former student, permanently loses the privilege of submitting checks as payment for fees or services. (Acceptable methods of payment are cash, cashiers' check or money order). The State then has the authority to withhold amounts owed to the University from any tax refund to which the student may be entitled.
To pay your balance due - Cashier's Office, BH 148.
For information regarding the amount due - Student
Account Services. BH 148, Window \#8-10, or call Student
Account Services at (562) 985-4167.

## Dishonored Checks / EChecks

Students paying fees by personal check or Echeck are hereby given notice that if the unpaid check is returned dishonored to the University FOR ANY REASON, a $\$ 20.00$ fee is charged to the student's account. The University has no control whether the bank sends checks through a second time for clearing. The check should be honored upon first presentation to the bank.

In compliance with California Code of Regulations, Title V, Section 42381, students with dishonored checks may be disenrolled from classes and may be required to reapply for admission to the University. Also, future services including, but not limited to, transcripts, grades, and future registration may be withheld.

Dishonored checks are monitored in the student's record. Any student with a record of two (2) dishonored checks or Echecks will lose check writing privileges with the University and future payments by personal check will not be accepted.

## Disputed Credit Card Charge

Students are strongly encouraged to contact the Student Account Services Window \#8-10 (BH 148), or call Student Account Services at (562) 985-4167, before disputing a credit card charge through the bank. Upon receipt of a disputed credit card charge, the amount of the credit card charge plus a $\$ 10.00$ fee becomes the STUDENT'S financial obligation to the University. Payment of Registration fees with a credit card charge which has later been disputed may result in disenrollment and in withholding of future University services including, but not limited to, transcripts, grades, and future registration (California Code of Regulations, Title V, Section 42381). Students who are disenrolled may be required to reapply for admission to the University.

## Fees and Debts Owed to the Institution

Should a student or former student fail to pay a fee or a debt owed to the institution, the institution may withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise, or any combination of the above from any person owing a debt until the debt is paid (see Title 5, California Code of Regulations, Sections 42380 and 42381).

Prospective students who register for courses offered by the university are obligated for the payment of fees associated with registration for those courses. Failure to cancel registration in any course for an academic term prior to the first day of the academic term gives rise to an obligation to pay student fees including any tuition for the reservation of space in the course. Fees are pro-rated based on the date of drop or withdrawal. Refer to the current Schedule of Classes for more information.

The institution may withhold permission to register or to receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. If a person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact the Student Account Services Office. The Student Account Services Office, or another office on campus to which the Student Account Services Office may refer the person, will review all pertinent information provided by the person and available to the campus and will advise the person of its conclusions.

## Financial Assistance Information

There are a variety of financial aid programs to assist students and families with meeting expenses. The following information concerning student financial assistance may be obtained from Financial Aid, BH 101, (562) 985-8403:

1. A description of the federal, state, institutional, local, and private student financial assistance programs available to students who enroll at CSULB;
2. For each aid program, a description of procedures and forms by which students apply for assistance, student eligibility requirements, criteria for selecting recipients from the group of eligible applicants, and criteria for determining the amount of a student's award;
3. A description of the rights and responsibilities of students receiving financial assistance, including federal Title IV student assistance programs, and the criteria for continued student eligibility under each program;
4. The satisfactory academic progress standards that students must maintain for the purpose of receiving financial assistance and criteria by which a student who has failed to maintain satisfactory progress may reestablish eligibility for financial assistance;
5. The method by which financial assistance disbursements will be made to students and the frequency of those disbursements;
6. The terms of any loan received as part of the student's financial aid package, a sample loan repayment schedule, and the necessity for repaying loans;
7. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;
8. The responsibility of CSULB for providing and collecting exit counseling information for all student borrowers under the federal student loan programs; and
9. The terms and conditions for deferral of loan payments for qualifying service under the Peace Corps Act, the Domestic Volunteer Service Act of 1973, or comparable volunteer community service.
Information concerning the cost of attending California
State University, Long Beach is available from the Office
of Financial Aid, BH 101, (562) 985-8403, and includes fees and tuition (where applicable); the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs.

Information concerning the refund policies of California State University, Long Beach for the return of unearned tuition and fees or other refundable portions of institutional charges is available from the Controller, BH 365.

Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulations is available from the Office of Financial Aid, BH 101, (562) 985-8403.

Information concerning athletic opportunities available to male and female students and the financial resources and personnel that CSULB dedicates to its men's and women's teams may be obtained from Cindy Masner, Sports Athletics and Recreation, 562-985-8527.

Information concerning teacher preparation programs at CSULB, including the pass rate on teacher certification examinations, may be obtained from either Elementary/ Special Education Admission Advising, ED1 54, (562) 9859259, Elementary Education: www.csulb.edu/cedinfo, Special Education: www.csulb.edu/colleges/colled/special-education, or Single Subject Office, ED 1 53, (562) 985-7623, www. csulb.edu/depts/singlesubj.

The Office of Financial Aid at CSULB provides both financial and advisory assistance to enable students to pursue a quality education despite increasing costs. It administers funds made available by the federal and state governments, CSU and by private sources that are awarded to students who demonstrate a need to cover educational expenses.

Due to limited funding, deadlines are critical. Students financial aid files must be complete before financial need can be determined. To receive maximum funding, students must file a Free Application for Federal Student Aid (FAFSA) by March 2.

## Financial Aid Application

To apply for financial aid from CSULB, students must file the Free Application for Federal Student Aid (FAFSA). The FAFSA is a multi-purpose form that also is used to apply for California Grants from the California Student Aid Commission and for Pell Grant funds from the federal government. The FAFSA must be mailed to a nationally designated processor. New students may obtain the FAFSA from high school counselors or local college financial aid offices. Students currently enrolled at CSULB may pick up the FAFSA from the Office of Financial Aid. Detailed information about CSULB financial aid programs is available in the Office of Financial Aid, BH 101, (562) 985-8403. The submission of various supportive documents may be required. These may include the following: (1) verification of all taxable and nontaxable income reported on the FAFSA; and (2) other clarifying information requested by the Office of Financial Aid. Upon receipt of all documentation, the applicant's file is evaluated to determine eligibility for financial aid. A student is automatically considered for all programs for which he/she qualifies at the University by submitting the FAFSA, and appropriate supporting documents. All loan, grant and work programs are available for the academic year.

## Financial Aid Eligibility

To determine financial aid eligibility, a standard needs analysis system is used. This system allows the Office of Financial Aid to analyze family financial strength and ability to contribute toward the cost of attending CSULB. Subtracted from the student's educational expenses to arrive at financial need are: the parental contribution, the applicant's (and spouse's) contribution from employment, savings, a portion of assets and other resources. As long as program funds permit, a "package" consisting of various types of funds (grants, loans, work-study) is awarded to meet full need.

Although enrollment is assumed to be full-time, part-time students are eligible to receive aid if they carry a minimum of six undergraduate units, or 5 graduate level units.

## Notification of Awards

Upon determination of eligibility, students are sent notice of a financial aid offer. Students are also notified if determined to be ineligible.

It is the goal of CSULB to package aid that fully meets the need of all qualified aid applicants. However, in the event that funds are insufficient, priority will be given to students whose financial aid files meet the first priority deadlines and who demonstrate the highest need.

## Academic Responsibilities

Aid recipients must:

1. be in good academic standing;
2. make satisfactory academic progress toward a degree by earning credit for units attempted each semester; and
3. remain within the maximum time frame for the degree program in which the student is enrolled.
Aid eligibility is governed by the number of units attempted and successfully completed with a passing grade ("D" or better). Students who do not satisfactorily complete enough of their attempted units may be placed on financial aid probation or disqualified from receiving aid.

Most aid recipients enroll in a full-time program of study carrying 12 undergraduate units or 9 graduate level units (500-level courses or higher) per semester. To be considered an eligible financial aid applicant, students cannot have attempted more academic units than an established "unit limit." At CSULB, the established unit limit is $150 \%$ of the published length of an academic program measured in units. The unit limit includes all attempted units. This includes units attempted as a recipient of financial aid as well as units attempted while not receiving aid. It also
includes transfer units for those students who have attended colleges elsewhere, and any units of remedial coursework.

For complete information on CSULB's satisfactory progress policy, go to their web site at www.csulb.edu/depts/ enrollment/financial_aid/sap_policy.html.

## Financial Responsibilities

If you are determined ineligible for financial aid, you are responsible for the payment of any University obligations you may have, including fees.

Students who are receiving financial aid funds and completely withdraw from all of their classes, may have to repay all or part of the award they received. Students should check with the financial aid office to find out if they will owe a repayment, before withdrawing from all of their classes.

## Campus Financial Aid Programs

## Federal Perkins Loans

The Federal Perkins Loan is a federal program providing long-term, low interest loans to both graduate and undergraduate students. Repayment of loan principal and interest begins nine months after you cease to be enrolled at last half-time.

## Federal Supplemental Educational

 Opportunity Grant (SEOG)The SEOG is a federally funded grant program for undergraduate students with exceptional financial need.

## Federal Work-Study (FWS)

The work-study program is a federally funded employment program to expand part-time job opportunities for students with financial need. Students are placed in jobs according to their skills, career and academic goals and must see the Office of Financial Aid for job referral. Positions are available on campus or with organizations off campus.

## Educational Opportunity Program Grants

EOP grants are provided by the State of California for undergraduate students admitted to one of The California State University campuses under the Educational Opportunity Program. Eligibility is determined by the same need criteria as federal financial aid programs. Students also receive special academic counseling and tutorial assistance when needed. Further information may be obtained by contacting the Educational Opportunity Program Office on campus.

## State University Grant

The State University Grant is funded by the State of California to assist students whose ability to attend postsecondary institutions is jeopardized by increases in student fees. Students must be residents of California, demonstrate financial need, and be assessed State University Fees to be eligible for this award.

## Graduate Research Fellowships

The Graduate Research Fellowship is funded by the California State University to graduate students who have experienced educational or economic disadvantages or hardships. Applicants must be California residents, demonstrate financial need and be accepted into or continuing in a full-time graduate program. Limited awards are made through a competitive process.

## University Scholarships

The Office of Financial Aid administers a limited number of small scholarships funded by CSULB. Other scholarships are funded by private donors, businesses, corporations, agencies, religious groups, and fraternal and civic organizations. Most scholarships are not based solely on financial need. They may be awarded on the basis of academic achievement, leadership, merit, motivations, and talent. Some scholarships are administered directly by the academic department for specific academic majors. Students may consult with their academic department or the Office of Financial Aid regarding scholarships available.

## President's Scholars Program — Four Years

High school valedictorians may be eligible. Includes registration fees, housing, and book allowance - up to approximately $\$ 30,000$ for four years.

National Merit Scholarship finalists may also be eligible. Includes registration fees, housing, food, and book allowance - up to approximately $\$ 40,000$ for four years.

Applications are available from your high school counselor. For more information contact Valerie Bordeaux in the CSULB Office of University Outreach and School Relations at (562) 985-5358.

## Outside Student Aid Programs

The following programs are administered by other agencies and coordinated by the Office of Financial Aid:

## Cal Grant A

Cal Grant A is awarded by the California Student Aid Commission to entering and continuing undergraduate students who are California residents. Cal Grant A awards are based on academic achievement and financial need. Grants are used to offset State University Fees.

## Cal Grant B

Cal Grant B is awarded by the California Student Aid Commission to entering undergraduate students who have not completed more than one semester of college. Applicants must be California residents, and must demonstrate substantial financial need. Grants vary depending on educational costs. Fees, in addition to the basic award, are normally provided in the second, third, and fourth years. The grant is renewable for four years.

## Federal Pell Grant Program

The Pell Grant Program is a federal aid program designed to provide financial assistance to undergraduate students who demonstrate financial need under the guidelines of the program. Teacher credential students in an eligible program may also qualify. Once a student is determined eligible for the Pell Grant, the amount of the award is based on the cost of education at the school
attended and enrollment on a half-time, three-quarter-time, or full-time basis. Eligibility is limited to U.S. citizens and eligible non-citizens.

## Federal Stafford Loan

The Stafford Loan Program enables eligible students to obtain loans through banks, credit unions, and other lending institutions outside of the University. During the time the student is enrolled at least half-time, the federal government pays the interest on the cumulative amount borrowed if the loan is based on financial need. An unsubsidized Federal Stafford Loan is not based on financial need. Once funds are disbursed, the student is responsible for interest due on the loan while in school. The Parent Loan is available to parents of dependent undergraduate students. The parent's credit history is a determinant for participation in this program.

Information, brochures, advising, and application forms are available from BH 101, or phone (562) 985-8403.

Federal regulations allow any student to apply for the Federal Stafford Loan providing the student: 1) is enrolled and in good standing or has been accepted for enrollment at an eligible school; 2) is enrolled as at least a half-time student; and 3 ) is a citizen of the United States or an eligible non-citizen. Local lender policy is available from the Office of Financial Aid.

## Fee Waivers

The California Education Code includes provisions for the waiver of mandatory systemwide fees as follows:

Section 68120 - Children and surviving spouses/ registered domestic partners of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties (referred to as Alan Pattee Scholarships);

Section 66025.3 - Qualifying children, spouses/registered domestic partners, or unmarried surviving spouses/registered domestic partners of a war period veteran of the U.S. military who is totally service-connected disabled or who died as a result of service-related causes; children of any veteran of the U.S. military who has a service-connected disability, was killed in action, or died of a service-connected disability and meets specified income provisions; any dependents or surviving spouse/registered domestic partner who has not remarried of a member of the California National Guard who in the line of duty and in active service of the state was killed or became permanently disabled or died of a disability as a result of an event while in active service of the state; and undergraduate students who are the recipient of or the child of a recipient of a Congressional Medal of Honor and meet age and income restrictions; and

Section 68121 - Qualifying students enrolled in an undergraduate program who are the surviving dependent of any individual killed in the September 11, 2001, terrorist attacks on the World Trade Center in New York City, the Pentagon building in Washington, D.C., or the crash of United Airlines Flight 93 in southwestern Pennsylvania, if the student meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program and either the surviving dependent or the individual killed in the attacks was a resident of California on September 11, 2001.

Students who may qualify for these benefits should contact the Admissions/Registrar's Office for further information and/or an eligibility determination.

## Bureau of Indian Affairs (BIA) Grants

Students who are at least one-fourth American Indian, Eskimo, or Aleut may apply for a BIA grant. The amount of the grant depends upon financial need and availability of funds. Students must complete an application for financial aid and then contact their tribe or tribal agency for an application.

## Federal/State Regulations

The information contained in this publication accurately reflects regulations and policies at the time of printing. Be aware that Federal and State regulations governing financial aid processing and eligibility are subject to change at any time.

## Other Types of Financial Assistance

## Cooperative Education (Co-Op)

The Cooperative Education Office places students in career or academic related positions with corporations, businesses, agencies and institutions. Students are paid at normal entry-level wages. Minimum periods of employment for full-time Cooperative Education placements are one semester. For part-time placements, a minimum of 20 hours is required. Summer internships are also available. Contact the Experiential Learning Center, BH 250.

## Student Part-Time Employment

Listings are available and assistance is offered in the Career Development Center to students interested in part-time employment. On-campus and off-campus positions are available.

## Teaching Assistantships and Graduate Assistantships

Many CSULB departments have Teaching Assistant (TA) and/or Graduate Assistant (GA) positions available for qualified graduate students. Students should check in department offices or on the campus web site for more information.

## Scholarship Information

The Center for Scholarship Information provides the following services to students: advising on the scholarship application process; access to a scholarship database containing information for on- and off-campus scholarships; proofing of scholarship applications, personal statements, and essays; access to the Internet and a typewriter. The Center also administers several scholarship programs and generates funds for scholarships. For more information see their web site at: www.csulb.edu/ scholarships.

## CAMPUS SERVICES AND RESOURCES

| Campus Resource | Location | Website | Phone Number |
| :---: | :---: | :---: | :---: |
| Academic Advising Center | Horn Center. <br> Room 103 | www.csulb.edu/advising | (562) 985-4837 |
| Academic Computing Services | Horn Center | www.csulb.edu/acs | (562) 985-8677 |
| Academic Records | BH-101 | www.csulb.edu/depts/enrollment/ | (562) 985-5471 |
| Academic Senate | AS-112 | www.csulb.edu/senate | (562) 985-4149 |
| Admissions | BH-101 | www.csulb.edu/depts/enrollment/ | (562) 985-5471 |
| Alumni Office | USU-111 | www.csulb.edu/aux/alumni/index.html |  |
| American Indian Student Study Center |  | www.csulb.edu/divisions/students2/sld/ Programs_and_Services/American_Indian_ Student_Services/ | (562) 985-8528 |
| Arts (Public Performances and Exhibitions) |  | http://cota.csulb.edu/ | (562) 985-7000 |
| Asian Pacific Student Resource Center | FO4-277 | www.csulb.edu/divisions/students2/sld/ Student_Resource_Centers/ |  |
| Associated Students, Inc. | USU-220 | www.csulb.edu/divisions/students2/ASI/ | (562) 985-4994 |
| Athletic Events and Tickets | Pyramid Box Office | www.longbeachstate.com | (562) 985-4949 |
| BeachBoard E-Learning Environment |  | http://beachboard.csulb.edu |  |
| Black Student Cultural Center | FO4-274 | www.csulb.edu/divisions/students2/sld/ Student_Resource_Centers/ | (562) 985-5223 |
| CalState TEACH |  | www.calstateteach.org/home.html |  |
| Career Development Center | BH-250 | www.careers.csulb.edu | (562) 985-8468 |
| Carpenter Performing Arts Center | CPAC | www.carpenterarts.org/ | (562) 985-7000 |
| Cashier's Office | BH-155 | http://daf.csulb.edu/offices/financial/bursar/ cashiers.html | (562) 985-4167 |
| Center for Community Engagement | AS-120 | www.csulb.edu/divisions/aa/personnel/cce/ | (562) 985-7131 |
| Center for International Education | BH-201 | www.csulb.edu/divisions/aa/grad_undergrad/ cie/ | (562) 985-4106 |
| Center for Student-Athlete Services | PE1-67 | www.csulb.edu/divisions/aa/grad_undergrad/ csas/index.html | (562) 985-4777 |
| Clubs and Organizations | USU-206 | www.csulb.edu/divisions/students2/sld/ Student_Organizations/ | (562) 985-4181 |
| College Assistance Migrant Program | LA3-202 | www.csulb.edu/csas | (562) 985-2006 |
| Commencement Ceremonies | AS-113 | www.csulb.edu/projects/commencement | (562) 985-2351 |
| Computer Labs | see website | www.csulb.edu/acs | (562) 985-2303 |
| Computing Resources |  | www.csulb.edu/divisions/aa/academic_ technology/thd/ |  |
| Counseling and Psychological Services | BH-226 | www.csulb.edu/divisions/students2/caps/ | (562) 9854001 |
| Disabled Student Services | BH-270 | www.csulb.edu/depts/dss | (562) 985-5401 |
| Earl Burns Miller Japanese Garden | Japanese Garden | www.csulb.edu/~jgarden | (562) 985-8885 |
| Educational Equity Services | LA1-119 | www.csulb.edu/divisions/students2/ees/ | (562) 985-5637 |
| Educational Opportunity Center | see website | www.csulb.edu/divisions/students2/eoc/ | (562) 570-3710 |
| Educational Opportunity Program | LA1-119 | www.csulb.edu/eop | (562) 985-5637 |
| Extension Services | FND-104 | www.uces.csulb.edu | (562) 985-5561 |


| Campus Resource | Location | Website | Phone Number |
| :---: | :---: | :---: | :---: |
| Enrollment Services | BH-101 | www.csulb.edu/enrollment | (562) 985-5471 |
| Fees | BH-101 | www.csulb.edu/depts/enrollment/registration/ fees_basics.html |  |
| Financial Aid | BH-101 | www.csulb.edu/enrollment | (562) 985-8403 |
| Forty-Niner Shops | BKS | www.csulb.edu/aux/49ershops/ | (562) 985-5093 |
| Foundation Office | FND-332 | www.foundation.csulb.edu | (562) 985-5537 |
| Fraternities/Sororities | USU | www.csulb.edu/divisions/students2/sld/Greek/ | (562) 985-7501 |
| Graduation Regulations and Filing | BH-101 | www.csulb.edu/enrollment/ | (562) 985-5471 |
| Health Resource Center | SHS-268 | www.csulb.edu/centers/shc | (562) 985-4609 |
| Honors Program | LIB-213 | www.csulb.edu/programs/uhp | (562) 985-4706 |
| Immunization Information | SHS | www.csulb.edu/centers/shc | (562) 985-4771 |
| Interdisciplinary Studies | FO5-205 | www.csulb.edu/divisions/aa/grad_undergrad/ isp/ | (562) 985-7194 |
| Interfaith Center | USU-103 | www.csulb.edu/divisions/students2/Diversity/ index.htm | (562) 985-4369 |
| International Student Services | BH-201 | www.csulb.edu/divisions/aa/grad_undergrad/ cie/ | (562) 985-4106 |
| Internet Account, CSULB | Horn Center | www.helpdesk.csulb.edu/email.html | (562) 985-3500 |
| Internship Program | BH-250 | www.careers.csulb.edu | (562) 984-4151 |
| Intramurals and Recreational Sports | PE-20 | www.csulb.edu/divisions/students2/recsports/ | (562) 985-4668 |
| Isabel Patterson Child Development Center | 5700 Atherton St. | www.csulb.edu/divisions/students2/child_dev_ ctr/ | (562) 985-5333 |
| Jensen Student Access to Science and Mathematics Center (SAS) | FO5-109 | www.cnsm.csulb.edu/depts/sas/ | (562) 985-4682 |
| KKJZ-FM 88 Public Radio | FO-1 | www.kkjz.org/ | (562) 985-5566 |
| Leadership Resource Center | USU-313 | www.csulb.edu/divisions/students2/sld/Lois_J_ Swanson_Leadership_Resource_Center/ | (562) 985-1936 |
| Learning Alliance | LA4-202 | www.csulb.edu/depts/alliance/ | (562) 985-7804 |
| Learning Assistance Center | Horn Center, Room 104 | www.csulb.edu/lac | (562) 985-5350 |
| Lesbian/Gay/Bisexual Resource Center | FA4-165 | www.csulb.edu/centers/Igbtrc/intro.html | (562) 985-4585 |
| Library | LIB | www.csulb.edu/library | (562) 985-8472 |
| Library Archives and Special Collection | LIB | www.csulb.edu/library/guide/serv/special.html | (562) 985-4087 |
| McNair Scholars Program | LA1-119 | www.csulb.edu/divisions/students2/mcnair/ | (562) 985-5637 |
| Medical Insurance | USU-220 | www.csulb.edu/divisions/students2/ASI/ASI_ Business_Office/StudentHealthInsurance.htm | (562) 985-8311 |
| MESA (Mathematics, Engineering, and Science Achievement) Center | EN2-300 | www.csulb.edu/colleges/coe/mesa/ | (562) 985-8014 |
| Multicultural Center | FO3-003 | www.csulb.edu/centers/mcc | (562) 985-8150 |
| Ombuds Office | USU-301 | www.csulb.edu/ombuds | (562)985-5983 |
| Off-Campus Housing | HRL | www.housing.csulb.edu/offcampus | (562) 985-4187 |
| On-Campus Housing | HRL | www.housing.csulb.edu | (562) 985-4187 |
| Outreach and School Relations | BH-289 | www.outreach.csulb.edu | (562) 985-5358 |
| Parents' Orientation Program | AS-124 | www.csulb.edu/divisions/aa/grad_undergrad/ aac/parents/ | (562) 985-5458 |


| Campus Resource | Location | Website | Phone Number |
| :---: | :---: | :---: | :---: |
| Parking Office | see website | http://daf.csulb.edu/offices/ppfm/parking/ | (562) 985-4146 |
| Partners for Success (Faculty Mentoring Students Program) | USU-209 | www.csulb.edu/partners | (562) 985-7562 |
| Pre-Baccalaureate Advising and Support Services | AS-14 | www.csulb.edu/divisions/aa/grad_undergrad/ pass/ | (562) 985-7895 |
| President's Scholars Program | LIB-301 | www.csulb.edu/divisions/students2/presidents scholars/ | (562) 985-1951 |
| Recycling Center | see website | www.csulb.edu/divisions/students2/recycling_ center/ | (562) 985-5461 |
| Registration | BH-101 | www.csulb.edu/enrollment | (562) 985-5471 |
| Scholarship Center | USU-108 | www.csulb.edu/scholarships | (562) 985-2549 |
| Stratagies for Academic Success Program | AS-124 | www.csulb.edu/divisions/aa/grad_undergrad/ aac/referrals/ | (562) 985-7847 |
| Student Health Services (SHS) | SHS | www.csulb.edu/divisions/students2/shs/ | (562) 985-4771 |
| Student Health Services Appointment Desk | SHS | www.csulb.edu/divisions/students2/shs/ | (562) 985-1638 |
| Student Life and Development | USU-206 | www.csulb.edu/divisions/students2/sld/ | (562) 985-4181 |
| Student Support Services Program | LA1-119 | www.csulb.edu/divisions/students2/sssp/ | (562) 985-5637 |
| Student Transition and Retention Services | Foundation Bldg.-160 | www.csulb.edu/soar | (562) 985-5515 |
| Study Abroad | BH-201 | www.csulb.edu/divisions/aa/grad_undergrad/ cie/ | (562) 985-4106 |
| Summer Bridge Program | LA1-119 | www.csulb.edu/divisions/students2/Summer_ Bridge/ | (562) 985-5637 |
| Summer Camps (Youth) |  | www.csulb.edu/summer-camps |  |
| Technology Help Desk | LA5-361 | http://helpdesk.csulb.edu | (562) 985-4959 |
| Testing and Evaluation Services | BH-216 | www.csulb.edu/testing | (562) 985-4007 |
| Transcripts | BH-101 | www.csulb.edu/enrollment | (562) 985-5471 |
| Tuition and Fees |  | www.csulb.edu/enrollment | (562) 985-5471 |
| University Art Museum | UAM | www.csulb.edu/org/uam/ | (562) 985-5761 |
| University Relations and Development | BH-387 | www.csulb.edu/divisions/urad/ | (562) 985-5197 |
| Veterans' Services | BH-250 | www.careers.csulb.edu/veterans/ | (562) 985-5115 |
| Women's Resource Center | LA3-105 | www.csulb.edu/divisions/students2/wrc/ | $\begin{aligned} & \hline(562) 985- \\ & 8687 / 8576 \end{aligned}$ |
| Writer's Resource Lab | LAB-212 | www.csulb.edu/ wri/home.htm | (562) 985-4329 |

## ACADEMIC SERVICES AND CAMPUS LIFE

## Registration for Classes

## Registration Procedures

When admission or re-admission requirements have been satisfied, the student is eligible to register for classes at the University. Undergraduate students new to the University will receive information about the Student Orientation, Advising and Registration Program (SOAR) which is designed to help the new student with registration procedures. It should be noted that no new undergraduate student will be allowed to register for classes prior to SOAR. Registration for students not participating in SOAR will be conducted after all of the SOAR workshops are concluded.

Students returning to CSULB after an approved educational leave will receive registration information in the mail. Returning students should purchase the Schedule of Classes in the University Bookstore before registration. Registration dates, times and detailed instructions are included in the Schedule of Classes and at www.csulb. edu/enrollment.

Students are not permitted to attend any class for which they have not officially registered. The deadline to register is the end of the third week of classes.
NOTE: Admission and readmission deadlines are much earlier.

## New Students

## Student Orientation, Advising and Registration (SOAR)

Newly admitted freshman and transfer students are strongly encouraged to participate in the Student Orientation, Advising, and Registration (SOAR) program. Participation affords students an opportunity to receive initial academic advising concerning general education and major requirements, assistance with course selection, and the ability to register earlier for classes. An orientation to student services and campus resources is also provided. The workshops take place in early January for Spring admits and throughout the summer months for Fall admits. There is also a two-day overnight SOAR program for students admitted for fall who would like a more extensive orientation experience.

Information about the SOAR workshop schedule is mailed to newly admitted students and may also be obtained by visiting the department's website (www.csulb. edu/soar). There is a fee associated with the program. Participants receive a University Catalog, Schedule of Classes, academic planner, a parking permit, and lunch.

## Freshmen

Freshmen are advised and register for courses based upon their level of preparation - as evidenced by high school achievement and the results of standardized testing (SAT, ACT, EPT/ELM). The core of the first semester schedule includes written composition or speech communication and a course that meets one of the General Education requirements. Students are also required to
enroll in a one-unit academic orientation course (University 100) in their first (or second) semester. Major pre-requisites, mathematics, and elective courses are then chosen to complete the schedule. Students are encouraged to construct a balanced schedule that accounts for their hours of employment, extra curricular activities and the inherent stressors they may experience in their adjustment to the post secondary educational experience.

Freshmen who attend the SOAR Program and who have not chosen to participate in another CSULB learning community are encouraged to participate in Beach
Beginnings which is a learning community that offers first-year students the opportunity to take two classes with the same group of students. The goal of Beach Beginnings is to ensure that students have a successful transition to college and take appropriate classes during their first year at CSULB. Advisors assist students with the selection of their Beach Beginnings package based on their English placement level. The Beach Beginnings package includes one large lecture general education (GE) course (i.e. Criminal Justice, Geography, History, Human Development Music, Philosophy, Political Science, Psychology, etc.) paired with a smaller English Composition, Communication Studies, Critical Thinking or pre-baccalaureate review course. Beach Beginnings classes count toward general education requirements and/or pre-baccalaureate credit (if needed). Courses can sometimes also be used to meet lower-division prerequisite and/or major requirements. Students who participate in Beach Beginnings tend to have a smoother adjustment to college-level work and report feeling a stronger connection to the CSULB campus community.

## Transfer

The primary focus of the SOAR workshops for transfer students is to enable them to ascertain what courses they must take to meet major pre-requisites; identify upperdivision major and General Educational requirements and to facilitate their initial connection with faculty major advisors. There are SOAR workshops assigned to each of the university's seven Colleges. (Information about College majors may be found on the SOAR website.) Students are highly encouraged to attend the workshop date when their faculty advisor will be present. This enables students to receive advice about what major specific courses they should consider taking during their first semester at CSULB.

## Parent Orientation Program (POP)

The Parent Orientation Program (POP) is designed to inform parents about baccalaureate requirements, the University library, safety, financial aid, housing, and other important University issues so they may better assist their children with success at CSULB. Sessions occur in conjunction with SOAR each summer. POP is presented by the Academic Advising Center. For more information, call (562) 985-5458.

## Continuing Students

## Enrolling in Classes

Students may enroll in classes via "MyCSULB" or IVR on their "Enrollment Appointment" day (assigned by the University) and through the first two weeks of the semester. During the third week of the semester written permission, on a Late Registration Request form, is required from the instructor and a stamp of approval is required from the department.

Students receiving faculty or department "permission" to add classes via MyCSULB or IVR or who have been added to an instructor's wait list or roster must still complete the add procedures by the dates listed each semester in the Schedule of Classes. No request to add classes will be considered after the third week of the semester unless there is an approved technical error.
Note: Instructors, advisors and departments cannot add students into classes. The add procedures must be completed by the student.

## Registration Holds

## Financial Holds

Other University offices, including but not limited to the Library, may request that a student reimburse the University for an item that was not returned, returned late or damaged; or they may impose other charges. The requesting office may ask the Student Account Services Office to post this charge to the student's account. Once posted it becomes an obligation to the student. Student Account Services will be able to provide general information concerning obligations. The student will be directed to the appropriate department in which to inquire about the obligation. Until all obligations are paid, or a written release from the originating office is received by the Student Account Services Office, a financial hold will be placed on academic records and the student is restricted from receiving University services, including but not limited to registration, grades, and transcripts. If the obligation continues to appear on the University reports, the student's name will be submitted to the Franchise Tax Board. In this case, the student or former student, permanently loses the privilege of submitting checks as payment for fees or services. (Acceptable methods of payment are cash, cashiers' check or money order). The State then has the authority to withhold amounts owed to the University from any tax refund to which the student may be entitled.

To pay a balance due go to the Cashier's Office, BH 148. For information regarding the amount due, contact Student Account Services. BH 148, Window \#8-10, or call Student Account Services at (562) 985-4167.

## Advising Holds for Freshmen

All entering freshmen have "advising holds" placed on their records for the first semester and will not be able to change their schedules without consultation with an advisor. Mid-way through their first semester, freshmen will receive an e-mail from the Office of Enrollment Services about the Freshman Mandatory Advising Program. They are then required to attend a comprehensive advising session to prepare for second-semester course selections. After
attending the workshop session the advising hold will be removed.

## Other Holds

- EPT, ELM and WPE - For information, refer to your Schedule of Classes. For further information, contact the Testing and Evaluation Services (562) 985-4006
- Perkins Loans - Business Office, BH 155, (562) 985-5348
- Measles - Student Health Services, (562) 985-4771
- VISA hold (Foreign Clearance) - Center for International Education, BH 201, (562) 985-4106


## Advisement Centers on Campus

CSULB is committed to student success. University undergraduate academic advising services and academic departments are responsible for providing academic direction for new and continuing students. In addition, academic departments provide academic advising for graduate students.

Undergraduate advisors, both in advising service offices and in academic departments, assist students to develop educational plans that are compatible with students' interests, academic preparation, and educational and career goals.

While advising offices mainly provide information and advise about general education, academic departments advise students about their major requirements and other important academic issues.

Lists of faculty advisors, their locations and phone numbers appear each semester in the Schedule of Classes. Faculty advisors also provide academic advisement and information about minors, certificates, internships, and masters programs. Students are advised to check with advisors often for current and relevant information.

The following listings are of advising services that provide general advising for students. Some are for students in special programs. All are eager to assist students.

## Academic Advising Center

The Academic Advising Center is located in the Horn Center, Room 103 . For hours and appointments, call (562) 985-4837.

The Academic Advising Center provides services to the general University undergraduate student population including both traditional and non-traditional students.

The Academic Advising Center provides advisement workshops for transfer, adult reentry and graduating senior students; academic information for prospective CSULB students; small group workshops for entering students; total academic program planning for entering and continuing students; unofficial Degree Audits for continuing students; General Education advising for continuing and returning students; information, advisement and special evaluation services to adult reentry students; mandatory freshman workshops for second-semester class registration; assistance and information with and for the academic appeals process; academic probation/disqualification intervention services to high-risk students (in the "Strategies for Academic Success" program and in one-on-one sessions); and special advisement services to undeclared and pre-majors.

## Educational Equity Services

Educational Equity Services is located in Liberal Arts (LA) 1-119. The telephone number is (562) 985-5637. Students are seen by appointment. Educational Equity Services has two advising components:

## Educational Opportunity Program (EOP)

The Educational Opportunity Program (EOP) is a state funded program that has developed special services to help students overcome the obstacles that may prevent them from furthering their education and reaching their potential. Students who are interested in being considered for EOP must declare their intentions on the University application at the time they apply to the University.

## The Student Support Services Program (SSSP)

The Student Support Services Program (SSSP) is a federally funded program designed to assist students in achieving their maximum potential in higher education. Students are referred to SSSP by faculty, staff, and students of CSULB. Interested students apply directly to the program for participation. In addition to an academic need, one of the following must apply for a student to be eligible for SSSP services: low income and first generation college students; physically disabled and/or learning disabled; low income only; first generation only.

Students should check with SSSP regarding their eligibility for program participation.

Educational Equity Services include Financial Aid Assistance; orientation to college-helping students adjust to the college environment; academic advisingguidance with graduation requirements, major and course selection; a writing and college transition course (EOP 100); individual counseling; peer advising; tutorial and supplemental instruction assistance covering a wide range of courses; career counseling; probation intervention; Writing Proficiency Examination workshops; and graduate placement information.

## Global Learning Options for a Broader Education (GLOBE)

The GLOBE Program is located in Academic Services, Room 113. Call (562) 985-9308 for information or visit www. csulb.edu/divisions/aa/iec/globe.

The GLOBE Program is an academic program for first-time freshmen who are interested in international issues and who wish to have at least one study abroad experience during their undergraduate career at CSULB. This small learning community enrolls approximately fifty new students each fall and offers an integrated curriculum of foundation and content area courses focused on global themes. The curriculum includes written communication, oral communication, critical thinking, literature, the arts, and social sciences. Students are recruited at SOAR each summer based on interest. Students receive paired courses for the first year, academic advising throughout their undergraduate career, assistance in selecting a major, and study abroad advising.

## Learning Alliance

The Learning Alliance is located in LA4-202. For information contact the Learning Alliance at (562) 985-7804, visit www.csulb.edu/depts/alliance/, or e-mail Alliance@ csulb.edu.

The CSULB Learning Alliance is an academic program for students who seek an active, personalized college experience. It is designed to help first-time freshmen make a positive academic and social transition to CSULB. This academic learning community offers students a chance to take classes together, learn from challenging instructors and establish closer ties to CSULB through campus involvement. Students qualify for the program based upon English test scores (SAT, ACT, AP, and/or EPT) and their desire to become part of a community that enables them to make well-informed choices about majors and career/life goals. Each fall, the Learning Alliance accepts approximately 200 first-time freshmen to the program, which is open to all majors both declared and undeclared. New students enroll in two connected general education classes in the fall where faculty members work together to integrate course subject matter. In the spring, Alliance students enroll in additional connected general education classes. During each semester of the sophomore year, students maintain their involvement with the program by continuing to take general education classes. As a result of their in-class connections, students have opportunities to make new friends and form study groups. Alliance juniors and seniors continue their association with the program by accessing resources that prepare them for graduation and life after college.

Specific benefits for Learning Alliance students include personalized academic advisement, guaranteed general education courses, support from professional staff members, courses with student-centered professors, opportunities for campus involvement, and access to the Alliance student lounge and computer lab.

Applications are accepted on a first-come, first-served basis.

## MESA Engineering Program (MEP)

The MEP office is located in Engineering2, Room 300. For information, call MEP at (562) 985-8014.

The MESA (Mathematics, Engineering, Science, and Achievement) Engineering Program (MEP) provides academic advisement for general education and upperdivision interdisciplinary course requirements to lowincome and educationally disadvantaged students in all of the engineering disciplines: Aerospace, Chemical, Civil, Computer Engineering and Computer Science, Electrical, Engineering Technology, and Mechanical Engineering. The MEP staff work with engineering department advisors to provide current information on engineering course requirements and changes.

Academic advisement is available in the MEP center by appointment and on a walk-in basis, as time permits.

## Student Access to Science and Mathematics Center (SAS)

The Jensen SAS Center is located in Faculty Office Building 5, Room 109 (FO5-109). For information check the website www.sascenter.org or call (562) 985-4682.

The Jensen Student Access to Science and Mathematics Center (SAS) encourages and supports undergraduate and graduate students as they prepare for careers in the sciences and/or mathematics. There are many programs that combine to make up SAS. Two programs in particular which relate to academic advising are Science Safari to Success and EONS (Enrollment Orientation to the Natural Sciences). Science Safari and EONS are orientation programs for all incoming freshmen and transfer students. These programs welcome students to the College of Natural Sciences and Mathematics by providing academic advising, an overview of career opportunities and degree programs, peer mentoring, and access to appropriate courses for students majoring in the sciences and/or mathematics.

## Student-Athlete Services

Center for Student Athlete Services is located in the Physical Education Building, PE-1, Room 67. Students may call (562) 985-4777 for more information.

The Center for Student-Athlete Services (CSAS) provides support services for the NCAA Division I studentathletes. The CSAS staff provide total advisement on academic program planning to meet CSULB graduation requirements and NCAA eligibility requirements, appropriate course suggestions to meet general education and major requirements, and assistance in the identification and clarification of educational and vocational goals. CSAS actively monitors student-athlete academic progress and provides referrals to various campus support services to enhance their academic performance.

CSAS coordinates three support programs. The StudentAthlete Success Program (SASP), a new academic support program in CSAS, is committed to providing 49 er student-athletes with tools and resources needed to succeed in the competitive academic environment. Support services include college readiness assessment, college survival study skills seminars, walk-in individual and group tutorials, supervised study hall, individual learning strategist assistance, support service referrals, and a computer access lab.

HEADS UP! is a program in which student-athlete peer mentors assist first-year student-athletes in adjusting to the demands of both intercollegiate athletics and university academics. It also provides the opportunity for freshmen and new transfer student-athletes to participate in transitional support programs designed to capitalize on the student-athletes' athletic skills, while learning to transfer those skills to the classroom. HEADS UP! promotes involvement in university life and personal academic and athletic competence.

Faculty/Athlete Connection Program (FACP) pairs student-athletes with distinguished faculty mentors. These faculty mentors can assist student-athletes in a variety of areas including academic assistance, major advisement, and career networking.

## University Honors Program

The University Honors Program is located in the University Library, Room 213. Students who are interested should telephone the Director, Professor Albie Burke, or Duan Jackson at (562) 985-4706 to request a brochure and an application.

The University Honors Program requires no extra course work and includes small discussion classes with students who share similar interests and abilities; personalized academic advisement and guidance each semester; opportunities for a distinguished undergraduate record as one of fewer than 400 honors students on campus; professors' profiles of each student's individual performance placed in a file for job and graduate school applications; and the opportunity to do an undergraduate thesis project in the area of the student's major. It is possible to graduate in four years and to be recognized at graduation as having fulfilled all the requirements of the Honors Program.

Students with SAT scores of 1,100 or above and a high school GPA of 3.3 or above, or with a college GPA of 3.2 or above who still need 21 units of General Education are eligible. Interested students are urged to apply for an interview with the Director of the program.

## Student Academic Support Services

CSULB believes that ALL students are capable of achieving academic success and thus provides a broad range of educational and student support services to assist them in their academic endeavors. Faculty and professional staff from all areas of the university work together to assist students in reaching their academic potential. The following programs compliment and support classroom instruction.

## Career Development Center

The Career Development Center is located in Brotman Hall, Room 250. For information, call (562) 985-4151, log onto www.careers.csulb.edu, or stop by the office.

The Career Development Center provides resources and strategies for choosing a college major, developing career plans, finding internships and full-time jobs and making successful career transitions. Career decision-making facilitates a student's definition of his/her personal career goals and objectives based on an understanding of one's self and the world of work. The Center provides students with the most current career data and information delivery systems.

## Career Planning, Selecting a Major, and Job Search

Career counselors assist students in exploring career and academic major options and in developing effective job seeking skills through one-to-one counseling and workshops. Counselors also provide assistance with résumé writing, interviewing techniques, job search techniques and other facets of the job search process including such topics as networking, accepting or rejecting a job offer, and negotiating a salary.

Once a student has carefully assessed his/her interests, skills, and values, the next step is to discover what professions might best suit them-that is, what major might
lead to their desired career path. Career exploration does not entail making one, unalterable decision, but is instead a process that will open up several possible pathways. The Career Development Center provides individual counseling sessions designed to assist students along every step of the career planning process. Additionally, the Career Resource Library contains information about hundreds of careerrelated topics including choosing a major, internships, résumé writing, job market trends, international jobs, interviewing, job search, employers, and graduate school.

The Career Development Center receives thousands of job listings every year for positions relating to majors in the Colleges of Business, Education, Engineering, Liberal Arts, Natural Sciences and Mathematics, and the Arts. Current listings are maintained for student use in the Career Resource Center and available via BeachLINK an online 24 -hour job listing service that provides students with access to all of the part-time and full-time job vacancies received by the Center.

The Center also offers an On-Campus Recruiting Program for graduating seniors and graduate students. Through the OCR program, employers visit the campus each year to conduct interviews. The employment opportunities in this program are generally in the areas of accounting, banking, computer science, engineering, finance, government, general management training, insurance, retail management, sales, and marketing.

Career fairs provide excellent opportunities for students to meet representatives from the companies in their industries of choice and establish a network of contacts. Career Counselors help students research the employers beforehand and provide tips so they are prepared to engage recruiters effectively.

## Internship Program

The Internship Program offers students paid and volunteer internship experience in business, industry, government and the non-profit sector. This practical and professional work experience is directly related to a student's academic major or career goal. Students may alternate full-time work periods with full-time academic periods or they may work part-time while simultaneously attending the University. Upper-division Internship courses are available for up to six units of elective academic credit. Contact the Career Development Center Internship Coordinator at (562) 985-4151 for more information.

## Careers and Disabilities

Careers and Disabilities is a Career Development Center program designed to help students with disabilities meet the challenges of career planning and job placement. A student with a visual, hearing or speech impairment, a learning disability or limited mobility can learn strategies in this program that will help build bridges to meaningful employment. For information about Careers and Disabilities, call (562) 985-8468

## Center for Community Engagement

The Center for Community Engagement is located in the Academic Services wing of the Librarry, Room 120. Call (562) 985-7131 for more information.

The Center was established to institutionalize service learning at CSULB. Service Learning is a teaching method that allows students to see and experience the relationship between theory and practice. It integrates and enhances both community service and academic instruction; engages students in responsible and challenging community service; and emphasizes active learning in different environments. Its mission is to develop awareness, understanding, and commitment to service learning by creating a physical and virtual resource center that facilitates interactions between faculty, graduate and undergraduate students, student services staff, and community partners.

The Center works actively to serve educational institutions, government and non-governmental organizations, community agencies, and the CSULB campus community by organizing educational and training tools to aid the development and implementation of service learning activities across disciplines. The Center works with faculty to support student learning objectives as well as developing successful approaches to establish service learning teaching strategies through existing networks, mentors, and resources. The Center is a member of a growing national community that appreciates service learning as an academically effective and socially beneficial pedagogy and therefore supports exploration in service learning through student theses and faculty research. The CSLC actively participates in campus, system, statewide, and national movements to promote service learning as a means for social and intellectual development.

## Disabled Student Services

Disabled Student Services (DSS) is located in Brotman Hall 270. Call (562) 985-5401 for information.

DSS provides appropriate services for students with disabilities, including registration assistance, note-taking, sign-language interpreting, reading, test proctoring, academic advising and scholarship information.

Other program components include the High Tech Computer Center for the Disabled, and the Stephen Benson Learning Disability Program which provides support services for students with learning disabilities. Peer counselors within the program provide disability related support services for the academic and personal needs of students identified with learning disabilities. Staff, trained in the assessment for learning disabilities, are available to provide prospective students testing and evaluation for specific learning disabilities.

In addition, the WorkAbility IV Program. In conjunction with the Career Development Center, DSS/WorkAbility IV provides career planning, placement and job search assistance. Call (562) 985-8038 for more information.

Clients of the Department of Rehabilitation may call to verify the receipt of authorization for tution and parking payment at this office. DSS also assists with disabled parking.

It is recommended that students with disabilities attempt to modify their schedules, as necessary, to lessen the impact of a disability. Students with disabilities, however, may request to enroll in a unit load commensurate with their ability. Reduced unit load is defined as less than 12 units for undergraduates and less than 8 units for graduates. Such
requests must be made to DSS prior to each semester affected. If approved, the student will be entitled to all benefits, services and activities governing by the University accorded to full-time students. Eligibility for benefits, services and activities outside the University's control will be governed by each separate external agency based upon actual unit load.

## Educational Equity Services

The Office of Educational Equity Services (EES) assists in the admission and retention of first generation college students and academically and economically disadvantaged students some of whom might not otherwise be enrolled in the University. Programs currently under EES include the College Assistance Migrant Program (CAMP), Educational Opportunity Program, Summer Bridge Program, and the federally sponsored TRIO programs, Educational Opportunity Center, Educational Information Services/ Talent Search, Student Support Services Program, McNair Scholars Program and Upward Bound.

## College Assistance Migrant Program (CAMP)

The CAMP office is located at Liberal Arts 3 Room 202 and is open from 8:00 a.m. to 6:00 p.m., Monday through Thursday and 8:00 a.m. to 12:00 p.m. on Fridays. The telephone number is (562) 985-2006 or FAX (562) 9852003.

The College Assistance Migrant Program (CAMP) is designed to serve students who themselves or whose parents are migrant or seasonal farm workers. Work may include production, transportation, packaging or canning of crops, dairy products, poultry, livestock, cultivation or harvesting of trees (nurseries), or fish farming. The goal of CAMP is to provide outreach and recruitment services to eligible students by assisting them in completing their admissions and financial aid applications. Also offered are parent workshops on motivating their children to enroll in and graduate from college.

The ultimate aim of CAMP is to provide migrant students with the necessary support services to help them transition easily during the first year in college. The project provides a student-centered array of academic and personal support services geared toward enhancing each student's learning opportunities and quality of life. Also provided are tutoring, academic-skill building instruction; peer and faculty/staff mentoring; assistance with registration; a grant if eligible; exposure to cultural events; and academic programs not usually available to migrant youth.

## Educational Opportunity Center

The Educational Opportunity Center is located at the Career Transition Center, 3447 Atlantic Avenue $2^{\text {nd }}$ Floor, Long Beach California 90807 (cross streets Atlantic Avenue and East Wardlow Road). Office hours are 8:00 a.m. to 6:00 p.m. Monday through Thursday and 8:00 a.m. to 12:00 p.m. on Friday. The telephone number is (562) 570-3710 and fax (562) 570-3713.

The Educational Opportunity Center (EOC) is a federally funded program designed to identify and assist low income, first-generation adult participants who want to enter, reenter or continue in a program of postsecondary education. Adults enrolled or interested in enrolling in a high school diploma or GED program are encouraged to seek services.

The mission of the EOC is to assist program participants reach their educational and career goals by providing quality information, advisement and services. EOC provides free services to individuals who meet the program criteria.

Participants are required to be at least 19 years old; a U.S. citizen, national or permanent resident; reside in one of the target communities: Artesia, Compton, Hawaiian Gardens, Long Beach, Lynwood, Norwalk, Paramount, Willowbrook and Wilmington; attend school or receive services from a site in the target area, and have a need for one or more of the program services.

The EOC provides academic advisement, career advisement, financial aid information, postsecondary advisement, assistance in completing college admissions, testing and financial aid applications. The program also conducts college admission and financial aid workshops.

## Educational Information Services/Talent Search

Educational Information Services/Talent Search is a federally funded program housed at California State University, Long Beach. Its purpose is to identify, select, and assist low-income, first-generation individuals between the ages of 12 to 27 to continue in and graduate from secondary school and enroll in a postsecondary educational program. Services offered include postsecondary admission and application assistance, financial aid information and application assistance, academic advising, and career exploration and planning.

## McNAIR Scholars Program

The McNAIR Scholars Program provides academic support services, research opportunities and involvement in scholarly activities for 25 low-income, first-generation college students to increase their likelihood of enrollment and success in doctoral programs. The program consists of the Summer Research Internship, which concentrates on a research project to be conducted by the McNAIR Scholar with the guidance of his/her faculty mentor, and the Academic Year Scholarly Experience to provide continuation of the summer research project; academic support and assistance in seeking admission to graduate programs; and assistance in obtaining graduate financial aid. The Scholars' papers are collected in a publication, the CSULB McNAIR Journal.

## Summer Bridge Program

The Summer Bridge Program provides an intensive five-week residential summer experience for selected first-time freshmen EOP students entering for the fall semester. The program provides English and mathematics instruction, tutoring, orientation to the campus, study skills workshops and enrichment activities to prepare students for the challenges of college. Participants are required to reside in campus housing for the full five weeks and must successfully complete the program to enroll at the university.

## Upward Bound Program

The Upward Bound Program is a federally funded college preparatory program designed to assist first generation, low-income high school students who have the potential to pursue postsecondary education. The goal is to assist participants in their efforts to complete high school successfully and obtain a college education.

The program provides summer and weekend academic instruction, tutoring, academic, personal and career counseling, cultural activities and college application and admissions assistance.

## International Student Services

International Student Services is located in the Center for International Education in Brotman Hall, Room 201

International Student Services serves some 1,400 non-immigrant students, representing almost 90 countries, by assisting them with their academic, personal, and cultural growth and development during their years at CSULB. This is accomplished through professional counseling and advising; assistance with Department of Homeland Security (DHS) regulations, paperwork processing, and documentation; student orientation activities; and assistance with registration. The ISS staff also serves as the University liaison with consulates, embassies, businesses, foundations, and community organizations concerning international students at CSULB.

In addition, the ISS staff works with international students, faculty, and members of the community to encourage and support international programs. International students are encouraged to participate in University and community programs. During the academic year, the ISS staff works with the International Student Association, the International Peer Advisors, and the International Community Council of Long Beach to plan and organize cross-cultural events such as the Annual International Dinner and Culture Show, International Faire, and other major events. These groups add a special dimension to student life on campus by hosting various cultural events and providing leadership training opportunities for their members.

## Learning Assistance Center

Located in the Horn Center, Room 104, the Learning Assistance Center is an all-university academic support service that helps individuals identify and develop effective learning approaches to their courses. The LAC offers the following services:

1. Learning Skills Sessions and Workshops
2. Supplemental Instruction and Group Study
3. Tutorial Services
4. ESL Support Services

## Learning Skills Services

The Learning Skills program provides help with a range of study skills and learning strategies. Learning Specialists offer individual sessions and scheduled workshops on such topics as Reading Textbooks Critically, Listening and Notetaking Skills, Time Management, Test-Taking Strategies, Memory Techniques, Learning Styles, Preparing Research/Term

Papers, and Preparing for Final Exams. Students preparing for such standardized tests as the GMAT, GRE, and LSAT often combine use of software or printed materials with individual learning strategy sessions.

Learning Skill workshops may be tailored to individual courses and presented in class at faculty request. Workshops are also scheduled by student organizations and other groups.

## Supplemental Instruction and Group Study

The LAC offers two forms of support for courses known to be historically difficult (where over $30 \%$ of enrolled students typically receive grades of D, F, or W). Supplemental Instruction (S/I) 60 is a one-unit non-baccalaureate adjunct class tied to select general education courses. Students enroll in the target GE course and the SI class together. The new Group Study offering is like SI, except that sessions are attended without registration, which allows students to participate even if they didn't expect to need help at the beginning of the semester. SI and Group Study address both the comprehension and mastery of course content and the development of study skills that students need to be successful. Sessions are facilitated by advanced students who know the discipline well and have demonstrated the associated skills. Active participants typically perform much better (one letter grade higher) in the target course than peers who attempt it independently.

## Tutorial Services

The Tutorial Services Program supports a wide range of subjects and specific courses through scheduled group, dropin, online, and individual appointment tutoring. Group sessions are led by trained tutors for several of the most highly requested general education courses. Extensive drop-in tutoring gives students the greatest range of schedule options for help in a most subjects. A modest fee is charged for unlimited use of any one subject. Individual weekly appointments are available to all students in nearly all disciplines on an hourly fee-support basis. Each semester's tutoring schedule is available online or at the LAC reception desk. Students in academic support programs such as EOP, SSSP, and DSS should contact program advisors regarding tutoring resources.

## ESL Support Services

For students whose primary language is not English, the International Students' Conversation Lab provides extensive opportunities to develop English fluency, work on academic language or course assignments, and to discuss cultural experiences. Students who need to increase their English language skills to fulfill the Graduation Writing Assessment Requirement (GWAR) may obtain weekly appointments with ESL Specialist when referred by the GWAR/WPE Advisor. These services are free to all students.

## Getting Started

Students may contact the LAC receptionist (562-985-5350) to schedule appointments, inquire about walk-in hours, or seek additional information. Further information can also be obtained
in person on the first floor of Academic Services or via the LAC website (www.csulb/lac).

## Pre-Baccalaureate Advising and Support Services

Pre-Baccalaureate Advising and Support Services is located in Academic Services, Room 14. The telephone number is (562) 985-7895.

Pre-Baccalaureate Advising and Support Services (PASS) provides advising as well as support to students in course placement and in developing the English and mathematics skills needed to prepare them for the required Freshmen-level English composition and/or mathematics courses. PASS does this by providing a combination of services.

Placement To receive information about placement into appropriate-level courses and to maintain compliance with Executive Order 665, PASS monitors course placement by advising students into the following remedial and developmental courses: ENGL 1ASAM 1, B/ST 1, CHLS 1, ALP/ALI 145, ALP/ALI 150, MATH 1, and/or MATH 10. If placed in these courses, students must complete the remedial requirement within one year.

Tracking PASS monitors students' progress through the sequence of remedial and/or developmental English and math courses required for entrance into Freshmenlevel English composition and/or mathematics courses. The goal is to be sure that students are making progress and completing the Prebaccalaureate classes as stated in Executive Order 665.

Intervention If students have difficulty in any course while enrolled in the remedial/developmental English and/or math courses, PASS counselors can help students by recommending referrals as necessary such as tutoring, diagnostic testing, and learning skills strategies.

## Partners for Success

The Partners for Success Office is located in the University Student Union (USU-209). The telephone number is (562) 985-7562. Interested students may apply at www. csulb.edu/partners.

For a variety of reasons, many first-generation students-students with parents who do not possess a bachelors degree-find it challenging to complete their college education. In an effort to retain and graduate these students, a program co-sponsored by Academic Affairs and the Division of Student Services is offered to pair students with faculty members who serve in the capacity of mentors. A mentor, in this case, is an experienced professor who acts as a friendly advisor, helping students become comfortable and successful in the university environment.

## Student Transition and Retention Services (STARS)

The STARS office is located in the Foundation Building (suite 160) and the telephone number is (562) 985-5515. Information may also be obtained on the department's website at www.csulb.edu/soar.

The educational experience presents new students with many challenges and pressures. The department of Student Transition and Retention Services directs its efforts toward the orientation, advising, and registration of students and the promotion of their persistence in college through
graduation. Special efforts are directed toward advisor training, orientation and advising workshops, as well as research with regard to issues affecting student retention.

## Study Abroad Programs

The Study Abroad Office is located in the Center for International Education (BH-201).

The Study Abroad office assists CSULB students and faculty to select and prepare for an educational experience in another country. The office administers exchange programs throughout the world, coordinates the London semester program, provides advising services, maintains an overseas opportunities resource library, and sponsors special programs such as pre-departure workshops, information seminars, and speakers from off-campus.

Study abroad options include short-term programs (summer and winter), semester programs, and year-long programs. Students may be eligible for financial aid, loans, or scholarships to assist them with their study abroad experience.

## CSU International Programs (IP) System-wide

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). Since its inception in 1963, CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 15,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 70 recognized universities and institutions of higher education in 18 countries, International Programs also offers a wide selection of study locales and learning environments.

The affiliated institutions are:
Australia ...Griffith University .Macquarie University ......................................Queensland University of Technology University of Queensland University of Western Sydney .. Victoria University Canada ....... The universities of Province of Quebec including: ..Bishop's University .Concordia University McGill University Université Laval ...................................................................................................................... ..Université du Quebec system Chile ........ Pontificia Universidad Católica de Chile (Santiago) China $\qquad$ Peking University (Beijing)
Denmark $\qquad$ Denmark's International Study Program (international education affiliate of University of Copenhagen) France ............. Institut des Etudes Françaises pour Étudiants ....... Étrangers, L'Académie d'Aix-Marseille (Aix-en Provence) ....Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, Institute of Oriental Languages and Civilizations and Université Evry

Universität Tübingen and a number of institutions of higher education in the federal state of Baden-Würtemberg
Israel. The Hebrew University of Jerusalem
$\qquad$ .CSU Study Center (Florence) Universitá degli Studi di Firenze .................................................................................... ... Waseda University (Tokyo)
$\qquad$
Mexico ...............................Instituto Tecnológico y de Estudios Superioras de Monterey, Campus Querétaro
New Zealand $\qquad$ . Lincoln University (Christchurch) . Massey University (Palmerston North) Spain ..............................Universidad Complutense de Madrid
...................................................................................................................... Taiwan ............................... National Taiwan University (Taipei) .................................................National Tsing Hua University United Kingdom ......................................... Bradford University Bristol University .Hull University .................................................................. Kingston University Sheffield University ................................................ University of Wales, Swansea Zimbabwe $\qquad$ University of Zimbabwe (Harare)
Information on academic course offerings available at these locations is in the International Programs Catalog which may be obtained from the Study Abroad Office in the Center for International Education (BH 201) or by writing to The California State University International Programs, 401 Golden Shore, Long Beach, CA 90802-4210 (562) 951-4790.

International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Financial aid, with the exception of Federal Work-Study, is available to qualified students.

To qualify for admission to International Programs, students must have upper-division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may, however, participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community colleges. Students must also possess a current cumulative GPA of 2.75 or 3.00, depending on the program for which they apply, for all college level work completed at the time of application, and have completed required language or other preparatory study where applicable. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection is made by the Office of International Programs in consultation with a statewide selection committee.

Additional information and application materials may be obtained from the CSULB Center for International Education by calling (562) 985-4106 or by writing to The California State University International Programs, 401 Golden Shore, Sixth

Floor, Long Beach, California 90802-4210. Visit us on the World Wide Web at: www.gateway.calstate.edu/csuienet/.

Applications for the 2007-2008 academic year overseas must be submitted by February 1, 2007 (May 1 for Australia and New Zealand).

## Writer's Resource Lab

The Writer's Resource Lab provides individualized instruction to help CSULB students develop their writing abilities. For specific information or to make a tutoring appointment, please stop by the Writer's Resource Lab in LAB-212 or call (562) 985-4329

At the Writer's Resource Lab, students can consult with friendly, knowledgeable tutors in order to become more confident with the process of writing.

Students do not need to be taking a writing course to use the services; they are available to any currently enrolled CSULB student. Instructional activities include the following:

1. One-on-one tutoring appointments;
2. Personalized consultation for students preparing to take (or retake) CSULB's Writing Proficiency Exam;
3. Intensive language acquisition instruction tailored to the needs of students whose first language is not English.
In addition, students are welcome to drop by and use the library of writing reference materials. Other services provided by the Writer's Resource Lab include group tutorial sessions and workshops on various writing issues.

## Campus Services

A wide range of campus services and co-curricular activites aim to insure that student needs are met as well as to enhance their college experience. Students are encouraged to take advantage of these services.

## Counseling and Psychological Services

Counseling and Psychological Services (CAPS) offers an array of services to help students achieve a satisfactory and meaningful academic experience. CAPS is located in Brotman Hall 226. The telephone number is (562) 985-4001.

Staff members of CAPS are trained at the doctoral level in counseling or clinical psychology and student development services delivery. Staff members are skilled in assisting students to translate their individual personal development, career development, and previous educational experience into optimal academic achievement and collegiate life experience.

Students are seen at CAPS by an intake counselor. Psychologists are assigned to students based on the type of problem expressed and/or identified in the initial review. Most individual counseling is short-term and lasts three to five sessions. The staff is also trained to address complex types of career and personal problems that may require more extensive counseling. Crisis intervention services are available on an immediate basis.

An extensive group counseling program exists for specific kinds of counseling issues such as stress management or interpersonal skill development. The mini-workshops acquaint students with various life skills such as assertiveness and time management. The Center is especially dedicated to working with students from diverse backgrounds.

## Isabel Patterson Child Development Center

The Isabel Patterson Child Development Center is located on campus at 5700 Atherton Street. For information call (562) 985-5333 8:00 a.m.-5:00 p.m.

In January of 1975, the University and the Associated Students opened the Isabel Patterson Child Development Center to provide quality child care services to the University and community. The facility was made possible by the generous donation of Isabel Patterson, a CSULB alumna.

The child care services provided enable a student parent to attend classes at the University. Following the registration of children of student parents, the children of University staff, faculty, administration, alumni and then community are offered these services as space allows.

Child care services are available for children six months to $21 / 2$ years in the Infant/Toddler Program; 2 1/2 to five years in the Pre-school Program; and Kindergarten through second grade in the Schoolage Program.

The environment of the Center allows children to move freely and choose from a variety of activities that include but are not limited to reading, music, water and sand play, art, science, cognitive games and dramatic play. Some of the program's goals are to help children be responsible and able to solve their problems, to be inner-directed, to be aware of alternatives and able to make choices, and to be free from gender and other stereotyping. The program includes a family-style breakfast, lunch and afternoon snack.

The Center employs child care and development professionals. The part-time teaching staff is composed of CSULB students who are required to participate in the Center's comprehensive training program.

## Student Health Services

## Student Health Services

Student Health Services (SHS) is the campus health center providing medical services, preventive health and health education programs. A highly trained and experienced staff of physicians, nurses and other health care professionals are dedicated to student health and well being. The SHS is located on State University Drive and Merriam Way, between Brotman Hall and the residence halls. The SHS is accredited by the Association for Ambulatory Health Care, and is a member of the American College Health Association. Website: www.csulb.edu/shs. Important phone numbers are the SHS Switchboard, (562) 985-4771, and Appointment Desk, (562) 985-1638. Medical Emergencies arising on campus are directed to University Police 9-1-1.

## Eligibility for Services

All regularly enrolled students registered for the current semester are eligible for services by paying the $\$ 45$ mandatory Health Fee at registration. Continuing students who take two consecutive semesters of educational leave can receive services by paying the Health Fee at Student Health Services, providing they are returning the following semester. Students enrolled in University College and Extension Services (UCES) can receive services for \$15.00 per visit while classes are in session.

## Clinical Services

Outpatient medical care is provided for acute injury and illness. Long term or overnight care is not provided. Services include Women's Health, Men's Health, and some specialties. Provisions are made for outside referrals for care beyond the scope of the SHS. X-ray, clinical laboratory, and pharmacy are available. Visits to the SHS, in house laboratory tests, and x-rays are provided without charge. Laboratory tests sent to outside reference labs and pharmacy medications are available at low cost. The SHS is open year round. Hours are 8:00 a.m. to 6:00 p.m. Monday, Tuesday and Thursday; 10:00 a.m. to 7:00 p.m. Wednesday; and 8:00 a.m. to 12:00 noon Friday.

## Health Resource Center

The Health Resource Center (HRC) is located in the Student Health Services (SHS) room 268. The HRC provides health education and support to students with a variety of programs and services. Programs include the Alcohol, Tobacco \& Drug Abuse Prevention Workshop, the Nutrition Counseling, HIV Testing and Counseling Workshop, and the Sexual Health Awareness Workshop. Services include a computerized health resource service, the Health Beat Newsletter, multi-media health information, and health promotion campus outreach activities. Volunteer and internship opportunities are available. For more information call (562) 985-4609 or visit the web site at www. csulb.edu/hrc.

## Immunization Requirement Clearance

Students enrolled in a California school for the seventh grade or higher on or after July 1, 1999 will have satisfied the requirements for Hepatitis B and Measles/Rubella. Hepatitis $B$ : is required of students who are 18 and younger on the first day of class. Measles/Rubella is required of new students born after January 1, 1957. Clearance is obtained at the SHS by showing proof of immunity using medical records or by receiving immunizations (available at the SHS.) Medical and religious exemptions are available. For more information see Admission to the University, Immunization Requirements section. Students may also phone the SHS at (562) 985-4771, call the Immunization Hotline at (562) 985-5411, or visit the web site www.csulb. edu/shs and click on immunization information.

## Medical Insurance

Medical insurance is strongly recommended. The Associated Students Inc. sponsors an individual health insurance plan available to all enrolled students. For more information contact Associated Students Business Office, (562) 985-8311, or visit the plan site www.chickering.com/ schools/csulongbeach.

## University Ombuds Services

The Office of University Ombuds is located in the Foundation Building, Suite 140. The telephone number is (562) 985-5983, and the office is open Monday through Friday, 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m. Special arrangements for another meeting time can be made upon request. For more information, email the University Ombuds (ombuds@csulb.edu) or visit their website (www.csulb.edu/ombuds).

The Office of University Ombuds is an available confidential resource for all students for the purpose of problem-solving, mediation, and expression of concerns related to campus issues. Students who wish to resolve issues informally may access the services of the Office of Ombuds before formally addressing their problems with the University. The Ombuds works independently as an objective advisor, keeps all matters confidential, and acts as a neutral party in order to ensure a process that is fair and equitable.

The Ombuds advocates for a process of resolving issues informally with integrity and dignity. The Ombuds will not address formal litigation issues, formal disciplinary actions, formal complaints, or grievance hearings. The services provided by the Office of University Ombuds do not compromise or replace university policies or procedures. Discussion with the University Ombuds does not constitute notice to the institution with regard to grievances and formal complaints.

## Veterans' Services

The Veterans' Services office coordinates all veterans' financial benefits including initiation of federal and state benefits, maintenance of veterans' status with the Veterans' Administration and continuation of benefits through enrollment certification. The office is supervised by the Career Development Center and is located in Brotman Hall Room 250.

## Student Life and Resources

## College Organizations

Many academic departments have a student departmental association composed of students in that discipline. In addition, there are other academically-related organizations and discipline-based honorary societies. Representatives from each departmental association work together on a college student council for each of the seven colleges. The organizations promote interaction between faculty and students by sponsoring speakers, seminars, social gatherings and other activities related to their disciplines. Students also have the opportunity to provide input regarding their educational experiences to their faculty and departmental chairs, as well as to their deans via the departmental associations and student councils, respectively. SLD staff members play a key role in coordinating major events such as Engineering Day, Health and Human Services Career Month, the Awareness Festival, College of the Arts Week, and the Nobel Laureate Lecture.

## Greek Life

Students have the opportunity to join national and local organizations with founding values based on community service, scholarship, campus involvement, leadership, and friendship. There are more than 30 fraternities and sororities which reflect a broad range of interests and historical traditions. There are groups with predominantly AfricanAmerican, Asian American and Latino membership, as well as chapters with no ethno-cultural affiliation.

In addition to their social and cultural programs, sororities and fraternities sponsor national and/or local philanthropies
and engage in community service projects. Examples of such projects include providing tutorial assistance and positive role models for children in local schools, initiating food and clothing drives for those in need, and raising money for scholarships.

Most national Greek organization chapters are members of one of these coordinating councils: National PanHellenic Council (historically African-American sororities and fraternities), Inter-fraternity Council (fraternities), Panhellenic Association (sororities) and Cultural Greek council (fraternities and sororities.)

## Leadership Academy

The Leadership Academy is a series of workshops focused on cultivating leadership excellence. Its purpose is to help students improve their leadership potential and to develop practical application to increase their understanding of leadership skills.

## Lois J. Swanson Leadership Resource Center

The Leadership Resource Center is located on the third floor of the University Student Union, Room 313. To contact the LRC, call (562) 985-1936.

The vision of the Lois J. Swanson Leadership Resource Center (LRC) is to cultivate leadership excellence. Its purpose is to prepare CSULB students to be the world's best leaders and maximize leadership potential with a commitment to serve others. The LRC provides a leadership library, resources, and a boardroom. The library holds books, videos, tapes and materials for icebreakers and interactive activities. Resources include a series of seminars to enhance leadership skills, increase self-confidence and develop teamwork. The LRC offers consultations for classroom facilitation, conferences and customized workshops. The LRC "Board room" can be reserved for leadership-related meetings.

## Multicultural Center

The Multicultural Center is located in Faculty Office Building 3 (FO3), Room 003 and is open from 9:00-5:00, Monday through Friday. For more information, the Center's website is www.csulb.edu/centers/mcc or call (562) 9858150. The center invites comments, ideas, and input to be sent to mcc@csulb.edu.

The mission of the Multicultural Center is to contribute to the creation of a campus environment which respects and supports cultural, ethnic, and racial diversity. The center is an educational resource center which serves as a vehicle for the expression of the needs and concerns of CSULB's increasing diverse campus community.

The objectives and activities of the center include its signature project S.T.A.R. (Students Talk About Race), which is offered every semester and trains students in cross-cultural communication and commits them to 8 weeks as facilitators at local middle and high school classrooms; diversity workshops, lectures, and forums; an extensive up-to-date library of journals, magazines, books, videos, some DVD's, and audio tapes; archived newspaper articles, an art gallery celebrating the center's theme of cultural diversity by well-known and student artists; and student internship opportunities. The center's resources are available for students, faculty, staff and community members.

## Student-Run Resource Centers

There are five student-run resource centers on campus. These venues are for affiliated student organizations to conduct program planning, peer mentoring, officer meetings, and post information regarding scholarships, service and internship opportunities.
American Indian Student Study Center, FO4-282,
(562) 985-4963

Asian Pacific Student Resource Center, FO4-277
Black Student Cultural Center, FO4-274, (562) 985-4502
Raza Resource Center, FO4-263, (562) 985-5223
Lesbian/Gay/Bisexual/Transgender Resource Center (LGBTRC), FO4-165, (562) 985-4585 (general information), (562) 985-4588 (event line) or e-mail Igbtrc@hotmail.com

## University Interfaith Center

The UIC is located in the University Student Union, room 103. For information on programs and resources call (562) 985-4369.

The University Interfaith Center (UIC) is an association of 12 faith traditions serving the education community of CSULB. Member groups represent individual faiths while respecting the diversity of religious traditions and the pluralistic nature of the university. Membership in the association is extended to faith groups who choose to work cooperatively, respecting the integrity of one another's religious traditions. All of the services of the University Interfaith Center are available to the entire campus community - students, faculty and staff.

The UIC aims to enhance the educational experience by encouraging students, faculty and staff in their pursuit of spiritual growth, community building, faith development and personal values. It offers pastoral care/spiritual support, educational programs, student community worship services, service projects, conferences/retreats and referral information. It also provides a library on topics of religion and a comfortable lounge area where students can meet, share a meal or study.

## Women's Resource Center

The Women's Resource Center is open 9:00 a.m. to 5:00 p.m. Monday through Friday and two evenings until 6:30 p.m. Its services are free and available to women and men, campus and community. The WRC is located in Liberal Arts 3-105. For further information, call (562) 985-8687/8576.

The mission of the Women's Resource Center (WRC) is to facilitate the educational, professional and personal growth of women on campus. The WRC houses a library of material on women's issues, offers women's support groups, and peer counseling. It provides referrals to campus and community services, scholarship information, and is a clearinghouse of current events of interest to women. The WRC also provides a comfortable lounge where students can study, chat with friends, or hold meetings.

In addition, the Women's Resource Center sponsors educational events throughout the school year and works cooperatively with other academic and student services programs. The seminars, workshops and/or conferences range from the more current theoretical women's issues to practical concerns of university women.

## Student Government

The Associated Students Government Offices are located in suite 311 of the University Student Union. For further information, stop by or call (562) 985-5241.

The quality of student life at CSULB is largely determined by students themselves. The time-honored tradition of student self-governance affords students a remarkable level of autonomy and provides a wealth of opportunities for developing leadership and management skills that can be as valuable as any classroom learning experience. Through self-governance, students learn how to make good decisions, how to motivate others to work toward a common goal, and how to manage budgets and other critical resources

Student government at The Beach is organized under the Associated Students, a California nonprofit corporation owned and operated by the students of CSULB. Every student becomes a member and "shareholder" of the Associated Students upon registration, and all are encouraged to get involved in Associated Student activities. In addition to student government, the Associated Students also operates and manages the University Student Union, the Isabel Patterson Child Development Center, the ASI Recycling Center, the Soroptimist House, the Beach Pride Center, K-Beach radio, the Long Beach Union newspaper, and the Gold Mine Yearbook, and the Recreational Sports Program.

Participation in student government, or any other aspect of the Associated Students, provides an exceptional opportunity for students to take part in the political advocacy of student interests, the development, and execution of student programs and services, the shared governance of the University, and the self-governance of the student community's affairs.

The governance structure of the Associated Students includes legislative, executive, and judicial branches. Each year the student body elects students to approximately 28 positions in the executive and legislative branches of government. In addition, students are elected to policymaking bodies including the Child Development Center Board of Directors, the University Student Union Board of Trustees, the Student Media Board, the Forty-Niner Shops Board of Directors, and the Academic Senate. Participation in these programs and other campus activities has been a significant part of many students' University experience.

The executive branch of student government is comprised of the A.S. President, A.S. Vice President, A.S. Treasurer, and A.S. Administrator. The Associated Students President is also the chief executive officer of the Associated Students, Incorporated and acts as the official representative and host of the Associated Students to the University and the public. The President is responsible for executing Associated Students policies adopted by the A.S. Senate and for making all A.S. executive and judicial appointments. The President is an ex-officio member of all A.S. executive bodies.

The Associated Students Vice President chairs the A.S. Senate and is a voting member of that body. The Vice President is responsible for assembling the agenda for the Senate meetings and serves on several boards and committees. The Vice President assists the President with
his or her duties and assumes the President's duties should the A.S. President leave office or become incapacitated.

The Associated Students Treasurer is responsible for the Associated Students' finances and enforcement of A.S. fiscal policy. The Treasurer prepares the Associated Students budget for submission to the Senate and chairs the A.S. Board of Control. The Treasurer approves all expenditures of A.S. monies and assists clubs and organizations with obtaining financial assistance from Associated Students.

The Associated Students Administrator is the senior programming officer of the Associated Students government. Appointed by the A.S. President each year, the Administrator is responsible for overseeing the A.S. Commissions. The Administrator also represents the Associated Students and the President on several campus committees.

The Associated Students Board of Control is a subsidiary board of the Senate and is chaired by the A.S. Treasurer. The Board acts in the areas of finance, personnel, and the administration of business affairs between the Associated Students and other parties. All groups requesting Associated Students funding must go before the Board of Control for approval prior to appearing before the Senate. The Board of Control makes recommendations regarding budget allocations to the Senate, which has final approval in all A.S. Board of Control financial actions.

The A.S. Senate is the legislative branch of student government and serves as the Board of Directors of the Associated Students, Incorporated. The Senate creates and revises the A.S. by-laws, approves the allocation of funds for programs, confirms presidential appointments, fills vacancies in elected offices between elections, and forms committees to study problems and proposals. The Senate also charters on-campus student groups (with the exception of fraternities and sororities), enabling these groups to request Associated Students funding, use Student Union facilities, and enjoy the benefits of the Associated Students' support and recognition. The Senate is comprised of 21 voting members, including the A.S. Vice President who serves as the Chair. There are two senators representing each of the seven colleges at CSULB and six Senators-atlarge elected by the general student body.

The Associated Students Judiciary is responsible for interpreting the provisions of the A.S. bylaws and any other A.S. document when a dispute arises. The Associated Students Judiciary may take disciplinary action, including suspension or revocation of charter privileges against recognized student organizations. The Judiciary also renders final decisions in election disputes. The decisions of the A.S. Judiciary constitute the final authority in all Associated Students matters. A chief justice and six associate justices are appointed yearly by the A.S. President and confirmed by the A.S. Senate. The A.S. President also appoints an Attorney General and a Public Defender. This court allows students the opportunity to develop mediation and adjudication skills and to address any injustice or wrongdoing involving student government.

## The University Student Union

In March 1965, the student body voted to assess a fee each semester to construct, maintain and operate a student union building. The University Student Union (USU) opened its doors in 1972 and has served the campus continuously since then. In March 1995, the student body approved a $\$ 17$ million improvement project. Completed in May 1998, the Project added a third floor and west wing to the building, providing space for a conference center, a Leadership Resource Center, student organization office space, a computer center, new meeting rooms, and a covered exterior escalator.

The University Student Union is located in the center of campus, bridging the north and south campuses. It occupies approximately 180,000 square feet. With large interior patios, flexible multipurpose and meeting rooms, comfortable lounges and food service facilities, the USU is the community center of campus, and for many students their "home away from home". The USU offers weekly entertainment activities and numerous opportunities for occupying students' recreation and leisure time. It is also home to the Associate Vice President for Student Services and Dean of Students.

The Mall (ground floor) level of the USU caters to recreational and leisure-time activities. The Games Area offers bowling lanes, a video arcade, billiards, table tennis, a television lounge, and an outdoor swimming pool. The first level also houses Round Table Pizza, the Press Room Cafe, the Beach Pride Center the Alumni Association, the Interfaith Center, K-Beach, and the Program Council.

The Plaza (second) level features food vendors, student conveniences, and student service providers. The USU Food Court features nationally branded vendors such as Carl's Jr., Subway, Robek's Juice, Coffee Bean and Tea Leaf, and El Pollo Loco. The Photo/Ticket Booth offers photo developing and sells tickets for campus events and discount tickets for area theme parks. The Candy Bar provides a quick place to grab a snack or a soft drink. The office of Student Life and Development provides advising for student organizations as well as mailboxes and organizational file space. The USU Conference and Event Center is the central scheduling service for the USU and Soroptomist House. The ASI Business Office offers health insurance, money orders, notary public services, and banking services for student organizations. The Computer Center provides students with access to PC and Mac computers, while Planet Graph-X provides students with the latest in graphic design services. Other services on this level include Elektric Hair, the Music Listening Lounge, the Union Newspaper, and Campus Police.

The Terrace (third) level houses the A.S. Government offices and offers students the opportunity to participate in campus governance activities. The Leadership Resource Center provides students with valuable resources to enhance their college experience. The Robert C. Maxson Student Organization Center houses 28 student organizations. The Greek Council Office and Office of Equity and Diversity are located on this level.

Throughout the USU, there are many facilities available to student organizations and other groups for scheduling events. The Long Beach Ballrooms, meeting rooms, Center Courtyard and the Beach Auditorium all provide a variety of amenities for meetings, conferences, speakers, films, concert, luncheons, and banquets.

## ACADEMIC INFORMATION AND REGULATIONS

## Frequently Asked Questions

Students ask many of the following questions about the processes and rules of CSULB. Successful students know the answers to these frequently asked questions. Please read them carefully. Knowing these answers can help you avoid pitfalls during your first semesters on campus. For further information, see this section of the Catalog or contact the Academic Advising Center at (562) 985-4837.

1. Why is it critical that I check e-mail from CSULB? It is important to check your e-mail regularly since this is the primary means by which you will receive important information from the university (e.g., deadlines for adding and dropping classes, your registration appointment date).
2. How do I tell the university about a change in my e-mail address or mailing address? You can use MyCSULB to change your e-mail address, indicate the e-mail address that you prefer to use, or change your mailing address. Click on "Personal Profile" to view your current information and to make changes.
3. Why should I check my official class schedule at the beginning of each semester and again after two or three weeks? It is important to make sure that you are officially enrolled in every class you are attending, and not enrolled in any class you are not attending. Remember that an instructor can give you permission to add a class, but only you can officially enroll you in a class (or drop yourself from a class).
4. Why is it important that I personally drop classes that I have registered for but am no longer attending? Instructors do not have the responsibility to drop students. Students must drop classes they no longer want or never attended (using MyCSULB or IVR) up to and during the first two (2) weeks of the semester.
Beginning the third week, students must use the official withdrawal form to change their schedule. (See the section on Withdrawals for the rules that apply to withdrawal after the third week of classes.)
Official withdrawal is indicated on the transcript with the symbol "W." This designation does not affect grade point average (GPA). Students who fail to withdraw officially within the established deadline receive a "WU" symbol (unauthorized withdrawal).
In the calculation of the GPA, a "WU" is counted as an " $F$ " grade.
5. Can freshmen/sophomore students take upperdivision (300-499) classes? University policy prohibits lower-division students (under 30 units) from taking upper-division courses without permission of the instructor.
6. What can I do if I get a "D" or "F" or "WU" in a course? The University has a "repeat/delete" policy which allows undergraduates to repeat a course in which you earned a D, F, or WU. If the second grade is a C or
better, the second grade will be used to calculate your GPA. Both grades remain on the transcript, but the first one is "deleted" from the GPA calculation. This can only be done once per course at CSULB. If you don't earn a C or better on the second try, all grades will be counted. For further details, refer to the "Repetion of Courses for Satisfactory Grade" in this section of the Catalog.

## Academic Calendar

California State University, Long Beach operates on a semester system, which is supplemented by a statesupported summer term and a fee-supported winter session. Normally, fall semester classes begin in late August or early September. The last day of instruction usually comes midway in December; this allows for a week of final examinations prior to the winter recess, which begins about December 20. The spring semester usually begins in the last week of January and ends in mid-May, in time for a week of final examinations and the week of commencement exercises just before or after Memorial Day. The summer term, consisting of three overlapping six-week sessions, runs throughout June and July and into late August.

## Class Attendance

Students are expected to attend classes regularly. Classroom attendance is often one of the most necessary and important means of learning and in many classes is essential to the educational objectives of the course.

Faculty members must include their guidelines for assigning grades in the syllabus (as required by Policy Statement 04-05, Course Syllabi). The syllabus must make clear whether any portion of the grade is based on attendance and/or participation. It is the students' responsibility to make themselves aware of each faculty member's guidelines by carefully reading the syllabus.

Faculty members may drop students who fail to attend class during the first week of the semester. Students, however, should not presume that they will be dropped by the faculty member. Students who have registered for a class, but never attended, should verify whether or not they are officially enrolled. It is the student's responsibility to withdraw officially from the class.

Students may have a valid reason to miss a class. When any of the following reasons directly conflict with class meeting times, students are responsible for informing faculty members of the reason for the absence and for arranging to make up missed assignments, tests, quizzes, and class work insofar as this is possible. Excused absences include, but are not limited to:

1. Illness or injury to the student
2. Death, injury, or serious illness of an immediate family member or the like
3. Religious reasons (California Education Code section 89320)
4. Jury duty or government obligation
5. University sanctioned or approved activities (examples include: artistic performances, forensics presentations, participation in research conferences, intercollegiate athletic activities, student government, required class field trips, etc.)
Faculty members are not obligated to consider other absences as excused. Faculty members may require students to provide documentation for excused absences.

There are numerous classes offered on campus where attendance is crucial since student participation is essential. Absence from these courses may impact upon the work and participation of other students. Students who anticipate extended or multiple absences during a particular semester should consult with their advisor and the faculty member before enrolling in any class to determine whether it will be possible to complete the requirements for the course. Students who realize after enrollment that they will have extended or multiple absences should consult with the faculty member to see whether it will be possible to complete the course requirements.

The earliest possible notification is preferred. In some circumstances, it may be possible for the student to notify the faculty member of anticipated absences (e.g. for religious reasons or for scheduled athletic events) during the first week of enrollment. Advance notification (minimally one week in advance) is required for the following absences:

1. Jury duty and other government obligation
2. Religious reasons
3. University sanctioned or approved activities

The California Education Code (section 89320) requires "each state university, in administering any test or examination, to permit any student who is eligible to undergo the test or examination to do so, without penalty, at a time when that activity would not violate the student's religious creed. This requirement shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship which could not reasonably have been avoided. In any court proceeding in which the existence of an undue hardship which could not reasonably have been avoided is an issue, the burden of proof shall be upon the institution."

It is the responsibility of the student to make advance notification, contact the faculty member to make arrangements to make up any academic work that may be missed, submit assignments on time, and to make arrangements regarding activities, tests, quizzes, or exams that may be scheduled during the absences.

If a student does not notify the faculty member one week in advance of the date of absences for these reasons (jury duty, governmental service, religious observances, or University sanctioned activities), the instructor is not required to adjust the class schedule or to allow for make up activities, tests, or exams. Students shall not, however, be penalized for excused absences when circumstances make it impossible to provide advance notice (e.g. student is engaged in a University sanctioned event such as a performance, tournament, or playoff which cannot be anticipated).

Students who expect to be absent from the University for any valid reason, and who have found it difficult to inform
their instructors, should notify the academic department office. The department office shall notify the student's instructors of the nature and duration of the absence. It remains the responsibility of the student to arrange with instructors to make up any academic work missed.

In circumstances where an actual assignment, some specific class work, an activity, a quiz, or an exam cannot reasonably be made up, it is the instructor's option to assign alternative work. (PS 01-01)

## Visitors to Classes

Only students registered for the class either as regular students or as auditors, the instructor, and invited guests of the instructor may attend classes at CSULB. Persons wishing to become guests of the instructor should seek the instructor's permission prior to the scheduled beginning of the class session.

## Faculty Office Hours

The purpose of office hours is to provide opportunities for student-faculty interaction outside the classroom. Each instructional faculty member will hold one office hour per week for every class taught, up to a maximum of four hours. Faculty may account for up to one hour of this expectation through alternative forms of access such as availability by appointment or through e-mail. The faculty member's office hours, phone number, and email contact will be posted by the door and announced in the syllabus. (PS 02-10)

## Cheating and Plagiarism

## Student Academic Honors Pledge

The Student Academic Honors Pledge was approved by the Academic Senate and Associated Student Senate in 2004. The pledge states, "I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."

Faculty may utilize the pledge as an educational tool with students in the classroom and on syllabi. Students may elect to sign the pledge as a symbol of their commitment to personal ethics and academic integrity.

## Definition of Plagiarism

Plagiarism is defined as the act of using the ideas or work of another person or persons as if they were one's own, without giving credit to the source. Such an act is not plagiarism if it is ascertained that the ideas were arrived at through independent reasoning or logic or where the thought or idea is common knowledge.

Acknowledgment of an original author or source must be made through appropriate references, i.e., quotation marks, footnotes, or commentary. Examples of plagiarism include, but are not limited to, the following: the submission of a work, either in part or in whole, completed by another; failure to give credit for ideas, statements, facts or conclusions which rightfully belong to another; in written work, failure to use quotation marks when quoting directly from another, whether it be a paragraph, a sentence, or even a part thereof; or close and lengthy paraphrasing of another's writing or programming. A student who is in doubt about the extent of acceptable paraphrasing should consult the instructor.

Students are cautioned that, in conducting their research, they should prepare their notes by (a) either quoting material exactly (using quotation marks) at the time they take notes from a source; or (b) departing completely from the language used in the source, putting the material into their own words. In this way, when the material is used in the paper or project, the student can avoid plagiarism resulting from verbatim use of notes. Both quoted and paraphrased materials must be given proper citations.

## Definition of Cheating

Cheating is defined as the act of obtaining or attempting to obtain or aiding another to obtain academic credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of cheating during an examination include, but are not limited to the following: copying, either in part or in whole, from another's test or examination; discussion of answers or ideas relating to the answers on an examination or test unless such discussion is specifically authorized by the instructor; giving or receiving copies of an examination without the permission of the instructor; using or displaying notes, "cheat sheets," or other information or devices inappropriate to the prescribed test conditions, as when the test of competence includes a test of unassisted recall of information, skill, or procedure; or allowing someone other than the officially enrolled student to represent the same. Also included are plagiarism, as defined above, and altering or interfering with the grading procedures.

It is often appropriate for students to study together or to work in teams on projects. Such students, however, should be careful to avoid the use of unauthorized assistance, and to avoid any implication of cheating, by such means as sitting apart from one another in examinations, presenting the work in a manner which clearly indicates the effort of each individual, or such other method as is appropriate to the particular course.

## Faculty Responsibilities

In cases where a student is suspected of cheating or plagiarism, the faculty member should arrange for an informal office conference with the student as soon as possible. The purpose of the informal conference is to bring the persons involved together to discuss the issues informally and to discuss courses of action. At the conference the student will be notified by the faculty member of the charge and supporting evidence. For an incident which occurs during or as a part of a final examination, see below for administration of an Incomplete grade.

In cases where there is more than one individual suspected of cheating or plagiarism, the faculty member may decide to call the students to confer jointly as a group, or as individuals, or both. If the faculty member should decide to confer with the students as a group, the students will have the option to also confer with the instructor separately as individuals.

The faculty member will inform the student(s) that both students and faculty have the right to submit a request to the Academic Integrity Committee (discussed below) for a written opinion on whether the accusation is supported by the evidence. All notes and discussions between the
student and the faculty member are confidential, except as may be relevant to the Academic Integrity Committee or in subsequent campus disciplinary proceedings. Neither the faculty member nor the student should discuss a specific charge of cheating or plagiarism or any violations with reference to individuals in the classroom before other members of the class.

When the student cannot be contacted and therefore the informal conference cannot be held, as is sometimes the case after final examinations, a grade of "I" (Incomplete) may be assigned, but only if the instructor wishes an additional test of competence. The instructor will have the agreement form for assigning an "Incomplete" sent to the last known address of the student. The agreement form will state the following in the format indicated:
"Under the provisions of the CSULB Policy Statement on Cheating and Plagiarism, an additional test of competency related to the [syllabus name of suspect demonstration, e.g., Final Examination] is requested. [Explain what additional test of competency.] You may decline to do so. Please contact the instructor, the department office, or the Office of Judicial Affairs for information regarding the University policy on cheating and plagiarism."

The instructor will indicate on the agreement form the grade which will be assigned, normally 120 calendar days following mailing of the Incomplete Agreement, if the student does not respond or, responding, the student does not agree to an additional test of competence.

Charges of cheating or plagiarism cannot be brought against a student more than 120 calendar days after discovery that the work in question may have been plagiarized or that cheating may have taken place.

Notes and evidence will be kept by the department chair or program director for a minimum of five years after the case is settled.

## Academic Actions

One or more of the following academic actions are available to the faculty member who finds a student has been cheating or plagiarizing. These options may be taken by the faculty member to the extent that the faculty member considers the cheating or plagiarism to manifest the student's lack of scholarship or to reflect on the student's lack of academic performance in the course. These actions may be taken without a request for, or before the receipt of, a Report from the Academic Integrity Committee.

1. Review but no action;
2. An oral reprimand with emphasis on counseling toward prevention of further occurrences;
3. A requirement that the work be repeated;
4. Assignment of a score of zero (0) for the specific demonstration of competence, resulting in the proportional reduction of final course grade;
5. Assignment of a failing final grade;
6. Referral to the Office of Judicial Affairs for possible probation, suspension, or expulsion.
A student may appeal a final course grade, the computation of which included an examination or other test of competence in which a score of zero was assigned for cheating or plagiarism, but only on the grounds permitted in the University Policy Statement on Grade Appeals.

An appeal of the final grade may include as written testimony the Report of the Academic Integrity Committee. (PS 85-19)

## Student Unit Load

## Recommended Student Load

The faculty recognizes that it is frequently necessary for students to hold part-time jobs while attending the University. It advises that good judgment be demonstrated by students enrolling under these conditions. Students whose outside employment could be expected to interfere with the normal unit load should reduce their academic program accordingly.

Students are expected to spend, on the average, two hours of preparation and study for each hour of class time. Thus, a three-unit lecture or discussion course normally demands a commitment of nine hours per week averaged over the semester, with the class meeting for three hours a week. This may be considered sufficient time to enable a student to do satisfactory work. Students who desire to achieve " $A$ " or " $B$ " grades may wish to spend proportionately more time in their studies.

A student's employment and college time combined should not exceed 60 hours weekly. Students who make no allowances for their employment and outside obligations in planning their college programs will bear full responsibility for the resulting level of scholarship.

## Minimum Unit Requirements for Students in Special Classifications

## Veterans

Veterans should inquire at the Veteran's Affairs Office (BH 226) about unit load requirements for state and federal benefits.

## Graduate Students

For information about graduate student load, see regulations governing Master's Degrees in this Catalog. International Students
Undergraduate international students on non-immigrant visas must carry and complete a minimum of 12 units per semester unless a reduced load is authorized by the student's advisor and the Center for International Education. Reduced unit loads may be granted for substantial academic reasons or compelling personal reasons beyond the control of the student. Failure to secure such authorization results in violation of student status under Immigration and Naturalization Service (INS) and State Department regulations, warranting discontinuance of enrollment.

## Students with Disabilities

It is recommended that students with disabilities attempt to modify their schedules, as necessary, to lessen the impact of a disability. Students with disabilities may request to enroll in a unit load which is commensurate with their ability. Reduced unit load is defined as less than 12 units for undergraduates and less than 9 units for graduates. Such requests must be made to Disabled Student Services prior to each semester affected. If approved, the student will be entitled to all benefits, services, and activities governed
by the University which are accorded to full-time students. Eligibility for benefits, services, and activities outside the University's control will be governed by each separate external agency based upon actual unit load.

## Student Load Regulations

## I. Maximum Student Load during the Fall and Spring Semesters.

An undergraduate student carrying 12 or more units during the fall or spring semester is classified as a fulltime student. A graduate or post-baccalaureate student carrying 9 or more units during the fall or spring semester is also classified as a full-time student. An undergraduate student carrying fewer than 12 units or a graduate or post-baccalaureate student carrying fewer than 9 units is classified as a part-time student. These definitions derive from federal financial aid regulations and have no bearing on the definitions used by the State of California to determine a student's liability for the State University Fee.

The maximum number of units a student may take during the fall or spring semester is normally 18 for undergraduate, graduate, or post-baccalaureate students.

Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that it is necessary to enroll for an overload in order to complete the student's chosen academic program in a timely manner. Permission must be obtained from the office of the Division of Academic Affairs prior to registration.

## II. Maximum Student Load during the Summer Term.

The maximum number of units a student may take during the summer term is one unit per week, plus one additional unit. Thus, the maximum number of units is normally 7 for one 6 -week session, 10 for two overlapping sessions, and 14 for an entire summer.

Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that the extra units will enable the student to graduate in that or the immediately subsequent term. Permission must be obtained from the office of the Division of Academic Affairs prior to registration.

## III. Maximum Student Load during the Winter Session.

The maximum number of units a student may take during the winter session is one unit per week, plus one additional unit. Thus, the maximum number of units is normally 4 .

Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that the extra units will enable the student to graduate in that or the immediately subsequent term. Permission must be obtained prior to registration from the Associate Dean of the college of the student's major department. (PS 04-08)

## Course Listings

Courses are listed in this catalog by department, the departments and programs being arranged alphabetically. Each listing gives the course number, title, semester units in parentheses, semester or session offered, and the course description, which includes prerequisites and other restrictions.

## Course Numbers

Any courses with a number of less than 100 do not count toward any degree program. For purposes of qualifying for financial aid, however, the unit value assigned to those courses will count for the semester in which those courses were taken. Lower-division courses are numbered from 100 through 299. These courses are designed primarily for Freshmen and Sophomores. They provide breadth of understanding and the foundation for the more specialized work in upper-division, advanced courses. Approved General Education courses are listed in the Schedule of Classes and are offered at both the lower-division and upper-division levels; no upper-division General Education course may be used in a graduate degree program. Lowerdivision courses are open to Junior, Senior, and Graduate students; however, lower-division courses may not be applied to any graduate degree program.

Upper-division courses are numbered from 300 through 499. These courses are open to students who have completed the prerequisites to the course, if any, stated in the course description and other departmental regulations given in this Catalog. A "Prerequisite" is a completed course or other measure of academic preparation which provides a foundation for the more advanced course.

Freshmen (fewer than 30 units) are not allowed to enroll in upper-division courses without permission of the instructor. Sophomores wishing to enroll in upper-division courses which indicate no prerequisites should consult with the course instructor or other knowledgeable advisor prior to enrollment. These courses are presented to meet the expectations of academically advanced students. Freshmen and Sophomores should not attempt courses with numbers preceded by an asterisk.

Certain 400-level courses are double-numbered with 500-level courses. In these courses the expectations of graduate students, who must enroll in the 500-level course, are greater than the expectations of undergraduates. Grading scales are different for the 500 -level course and additional work is required of graduate students. A student may not earn credit for both the 400- and 500-level versions of a course.

Graduate-level courses are numbered from 500 to 799 . Courses numbered 500-599 may be opened to senior students upon favorable petition. Courses numbered from 600 to 799 are open only to graduate students.

Included with some of the course numbers is a supplementary letter, or suffix, such as $L$ for "laboratory" or $A$ and $B$ for a year-long sequence. "A-B" means that the courses must be taken in alphabetical sequence; "A,B" designates related courses which need not be taken in sequence. The student is given degree credit for each part of the sequence satisfactorily completed, whether or not the remaining part of the sequence is completed. The "semester or session offered" information is presented as a long-range planning guide. Funding, student demand, and instructor availability may require that a course be offered in a different semester or session or be postponed until a later academic year. F indicates Fall Semester, S indicates Spring Semester, W indicates Winter Session, and SS indicates Summer Session. The Schedule of Classes
appropriate to the semester or session in question should be consulted for actual course scheduling information. Courses offered only in alternate years are so designated. Many of the courses offered during the fall and spring semesters are also offered during the summer session.

The University reserves the right to make changes in course offerings without notice.

## Course Credit Units and Modes of Instruction

## Course Credit Units

Each course has a specific credit unit value which is indicated in parentheses following the course titles in this Catalog.

In accordance with national standards, each semester unit corresponds to approximately 45 hours of work per semester, counting both class meeting time and outside preparation and study. For a traditional lecture or discussion course, this means that the class will meet one hour a week for every unit in a fall or spring semester ( 15 weeks of class meetings).

The instructional "hour" is fifty minutes long, allowing for transit between classes and rest breaks within multi-hour classes. For a laboratory or activity course, the class may meet two or three hours per week for every unit.

Classes scheduled in the six-week summer session or in a three-week summer or winter session, are scheduled for additional class hours per week so the total meeting time is the same as in a fall or spring semester. Classes taught by other modes of instruction are expected to require the same time commitment as traditionally-scheduled classes.

## Hybrid Classes and Distance Education Classes

Some classes use academic technology to replace part or all of the face-to-face class meetings. In a hybrid class, one-third to two-thirds of the student/faculty and student/student contact time uses academic technology to structure remote activities. The remaining communication is face-to-face, similar to traditional classes. A Local Online Class (LOC) is a course offering in which the majority of the instruction occurs when the student and instructor are not in the same place, but it may require up to two hours of face-to-face meetings per unit on the California State University, Long Beach campus within the given semester. A Distance Education Class is a course offering in which communication between faculty and student occurs primarily via academic technology, but it may also include off-site meetings. The mode of instruction is normally shown in the Schedule of Classes. (PS 03-11)

## Student Rights Relative to Course Instructional Mode

1. Student access to the faculty shall not be reduced by the instructional mode of a class.
2. The University shall make every effort to inform students of the mode of instruction and technological requirements of a course offering before the student enrolls in the class.
3. Matriculated students enrolled in non-traditional classes shall have access to the on-site academic advising services at California State University, Long Beach.
4. All students have equal access to the University library and other on-site learning resources offered at California State University, Long Beach.
5. Students in non-traditional classes shall have reasonable support services. These include:
A. Phone-based and online technology help to handle student questions and to refer students to appropriate available services for hybrid and local online or distance education courses;
B. Online and phone-based access to university administrative services;
C. Online dissemination of information describing the resources available for obtaining the technical competence needed to succeed in a specific course offering;
D. Online access to the library research databases and other research-related resources.
6. The University shall provide adequate technical support for academic technology.

## Credit for Independent Study Courses

Students may arrange with a faculty member to enroll in a supervised independent study, research, or reading course. Before enrolling in such a course, the student must have an agreement on file in the department office where the course is offered. The agreement is to be made between the student and the instructor at the beginning of the course and must include the following: a description of the work to be accomplished, specific information on the tasks required, the nature of the final report, and the basis for determining the final grade. The agreement must be signed by both the instructor and the student. (PS 94-06)

## Credit for Cross-Listed Courses

Certain courses are listed in this Catalog under more than one department. For purposes of awarding credit, all such listings are considered to be the same course, and a student may receive credit for only one of the listings. Normally, students will receive credit for such a cross-listed course in the department under which they register for it.

## Transfer Credit

Students who were in good standing at another accredited institution may, within maximums, transfer credit for baccalaureate or graduate degree course work. Course equivalency for major requirements must be determined. Students are cautioned that the University is under no obligation to accept transferred courses for subject credit in addition to unit credit for admission. Normally, however, there is a probability that courses in the accepted core of a discipline will be exchangeable between universities. Policy regarding transfer of courses from California community colleges differs in some respects.

## Transfer of Undergraduate Credit From Accredited Community Colleges

A maximum of 70 semester units earned in a community college may be applied toward the baccalaureate degree, with the following limitations and stipulations:

1. No upper-division credit may be allowed for courses taken in a community college;
2. No more than six semester units in education courses taken in a community college may be applied toward the baccalaureate degree or the professional preparation requirements of a teacher education basic credential program;
3. Individual program regulations may include specific transfer limitations.
4. Students who transfer general education certification are still required to complete at least 9 units of upper-division courses at the campus conferring the degree.
5. Any course taken at community colleges can substitute for general education breadth requirements and lowerdivision requirements, if the course is approved as equivalent to the appropriate CSULB course. Students with more than 70 transferable units from community colleges will get subject matter credit for all such courses, but no more than 70 units will count toward graduation.
6. All transferable units taken at community colleges will count toward computation of the overall grade-point average. All transferable units in the major taken at community colleges will count toward computation of the overall major grade-point average.

## Articulation of Courses-California Articulation Number (CAN) System

Lower division course-to-course articulation is a formal, faculty-approved agreement that identifies courses (or sequences of courses) that are comparable to, or acceptable in lieu of, specific course requirements between the "sending" campus and the "receiving" campus. Course articulation allows a smooth academic transition between the segments of higher education in California.

California State University, Long Beach participates in the CAN System. The CAN system is a cross-reference course identification system designed to identify lower-division, transferable courses commonly presented by transferring students. The CAN system not only simplifies the transfer process, but makes it easier for students, faculty, and counselors.

The development of a faculty-approved bilateral articulation agreement for each course with four public four-year institutions provides the foundation of the CAN system. Articulation agreements for each course are periodically reviewed with each campus by the faculty and Department Chairs.

The CAN system is based on bilateral course articulation: courses considered to be comparable, not necessarily identical, and acceptable "in lieu of" each other. The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. Example: CAN FCS 2 on one campus will be accepted for CAN FCS 2 on another participating campus. Each participating campus not only retains and uses its own course number, prefix, and title, but also adds the appropriate CAN designation parenthetically in its publications when it has qualified the course.

CSULB now articulates some pre-baccalaureate courses. For further information contact the University Articulation Office, (562) 985-8221 or 985-7171.

CAN Course
CAN AJ 2
CAN ANTH 2
CAN ANTH 4
CAN ANTH 6
CAN ART 2
CAN ART 4
CAN ART 6 CAN ART
CAN ART 10
CAN ART 12
CAN ART SEQA
CAN BIOL 12
CAN BIOL 14

CAN BIOL SEQA
CAN CHEM 2
CAN CHEM 4
CAN CHEM SEQ A
CAN DRAM 6
CAN DRAM 14
CAN ECON 2
CAN ECON 4
CAN ENGL 2
CAN ENGL 8
CAN ENGL 10
CAN ENGL SEQ B
CAN ENGR 2
CAN ENGR 6

CAN ENGR 8 ———
CAN ENGR 10 OE
CAN ENGR 12
CANFCS 2 FCS 132
CAN FCS 8 FCS 23
CAN FCS 10 FCS 15
CAN FCS 14 FCS 11
CAN FREN 2
CAN FREN 4
CAN FREN 8
CAN FREN 10
CAN FREN SEQ A
CAN FREN SEQ B
CAN GEOG 2
CAN GEOG 4
CAN GEOL 2
CAN GEOL 4
CAN GERM 4
CAN GOVT 2
CAN HIST 2
CAN HIST 4
CAN HIST 8
CAN HIST 10
CAN HIST 16
CAN HIST SEQ A
CAN HIST SEQ B
CAN JOUR 2
CRIM 101
ANTH 110
ANTH 120
ANTH 140
AH 115B
AH 115C
ART 151A
ART 181
ART 187
ART 263

BIOL 207
MICR 200
or MICR 211

CHEM 111A
CHEM 111B THEA 112

THEA 144
ECON 100
ECON 101
ENGL 100
ENGL 250A
ENGL 250B

M AE 172
E E 211+
E E 211L
C E 205
CE 130
E E 211
FCS 132
CS 235

FCS 111
FREN 101A
FREN 101B
FREN 201A
FREN 201B

GEOG 140
GEOG 160

GEOL 240
GERM 101B
POSC 100
HIST 131
HIST 132
HIST 172
HIST 173
HIST 212

JOUR 120

CSU, Long Beach Course

AH 115B+115C

BIOL 211A + 211B

CHEM 111A+111B

ENGL 250A+250B

FREN 101A+101B
FREN 201A+201B

GEOL 102+104

HIST 131+132
HIST 172+173

CRIM JUSTICE SYSTEM SOCIETY
INTRO TO PHYSICALANTH
Intro to culturalanth INTRO TO ARCHAEOLOGY FOUNDATION OF ART HISTORY II FOUNDATION OF ART HISTORY III beG CERAMICS: HANDBLDG FOUNDATION DRAWING
Foundation painting
beGinning sculpture
FOUNDATION ART HISTORY II+III human physiology
GEN MICRIHLTH PROFESSIONAL Gen microbiology
BIOL SCIENCES I \& II
general chemistry
GENERAL CHEMISTRY
GENERAL CHEMISTRY
BEG VOICE/SPEECH FOR ACTOR
STAGE MAKE UP I
PRIN OF MACROECONOMICS
PRIN OF MICROECONOMICS
COMPOSITION
SURVEY ENGLISH LIT
SURVEY ENGLISH LIT
SURVEY ENGLISH LIT
ENGR DESIGN GRAPHICS
ELEC \& ELECTRONIC CIRCUITS
ELECTRIC CIRCUITS LAB
ANALYTICAL MECH I (STATICS) SURVEY AND MAPPING ELEC \& ELECTRONIC CIRCUITS I INTRODUCTORY NUTRITION PRIN OF FOOD PREPARATION

FUND APPAREL PRODUCTION
PRESCHOOL CHILD
FUNDAMENTALS OF FRENCH
FUNDAMENTALS OF FRENCH
INTERMEDIATE FRENCH
INTERMEDIATE FRENCH
FUNDAMENTALS OF FRENCH
INTERMEDIATE FRENCH
INTRO TO PHYSICAL GEOG INTRO TO HUMAN GEOG general geol+geol lab HISTORICAL GEOL

FUNDAMENTALS OF GERMAN INTRO TO AMERICAN GOVT EARLY WESTERN CIVILIZATION modern west civilization

EARLY US HISTORY
RECENT US HISTORY WORLD SINCE 1500 EARLYIMOD WEST CIVILIZATION EARLYIRECENT US HISTORY WRITING ACROSS THE MEDIA

CAN JOUR 4
CAN MATH 2
CAN MATH 8
CAN MATH 12
CAN MATH 16
CAN MATH 18
CAN MATH 20
CAN MATH 22
CAN MATH 26
CAN MATH 30
CAN MATH 32
CAN MATH 34
CAN MATH SEQ B
CAN MATH SEQ C
CAN PHIL 2
CAN PHIL 4
CAN PHIL 6
CAN PHYS 2
CAN PHYS 4
CAN PHYS SEQ A
CAN PSY 2
CAN REC 2
CAN SOC 2
CAN SPAN 2
CAN SPAN 4
CAN SPAN 8
CAN SPAN 10
CAN SPAN SEQA
CAN SPAN SEQ B
CAN SPCH 4
CAN SPCH 6
CAN SPCH 8
CAN SPCH 10
CAN STAT 2

JOUR 110
MATH 103 MATHEMATICAL IDEAS
MATH 101 TRIGONOMETRY
MATH 114 FINITE MATH
MATH 117 PRECALCULUS MATHEMATICS
MATH 122 CALCULUS I
MATH 123 CALCULUS II
MATH 224 CALCULUS III
MATH 247 INTRO TO LINEAR ALGEBRA
MATH 119A SURVEY OF CALCULUS I
MATH 119B SURVEY OF CALCULUS II
MATH 115 CALCULUS FOR BUSINESS
MATH 122+123 CALCULUS I+II
MATH 122+123+224 CALCULUS I+II+III
PHIL 100
PHIL 160
PHIL 170
PHYS 100A
PHYS 100B
PHYS 100A+100B
PSY 100
REC 141
SOC 100
SPAN 101A
SPAN 101B
SPAN 201A
SPAN 201B
SPAN 101A+101B
SPAN 201A+201B
COMM 130
COMM 131
COMM 110
COMM 132
MATH 180

INTRO TO PHILOSOPHY INTRODUCTORY ETHICS

CRITICAL REASONING
GENERAL PHYSICS GENERAL PHYSICS GENERAL PHYSICS GENERAL PSYCHOLOGY INTRO LEISURE SERVICES PRIN OF SOCIOLOGY FUNDAMENTALS OF SPANISH FUNDAMENTALS OF SPANISH INTERMEDIATE SPANISH INTERMEDIATE SPANISH FUNDAMENTALS OF SPANISH INTERMEDIATE SPANISH ESSENTIALS OF PUBLIC SPEAK ESSENTIALS OF ARGUMENT INTERPERSONAL COMM SMALL GROUP DISCUSSION STATISTICS FOR EVERYDAY LIFE

## Extension Credit

A maximum of 24 semester units of Extension Credit may be accepted toward a baccalaureate degree. Extension credit may not be used to fulfill the minimum 30-unit residence requirement.

Courses offered through Extended Education conferring Continuing Education Unit credit (CEU) carry no degree credit.

## Open University/Special Session

The Open University program allows enrollment in regular university credit courses for those who are not currently admitted to and/or registered at CSULB. Enrollment is on a "space available" basis, subject to the approval of the instructor and the department chair concerned.

No more than 24 units of special session course credit earned through Open University or UCES Special Sessions course offerings at CSULB in non-matriculated status may count toward any undergraduate degree requirement. Students are considered in non-matriculated status in terms prior to the term of official admission to the degree granting program and during terms of disqualification from the degree granting program. There is no limit on UCES Special Sessions course credit, including Winter session, applicable to the degree if taken while in matriculated status in the degree program.

At the option of the appropriate college and department, up to six units of Open University Special Sessions credit may be applied to a graduate degree. This limit may be increased to nine units in some instances.

## Baccalaureate Credit Based on Alternative Means of Assessment

The University grants credit toward the baccalaureate degree based on several types of assessment other than formal university courses. Students should consult the Chair or undergraduate advisor of the concerned department about applicability to individual courses or degree requirements.

## Advanced Placement Credit

California State University, Long Beach grants credit toward its undergraduate degrees for successful completion of Advanced Placement (AP) examinations of the College Board. Students who present scores of three or better will be granted up to six semester units (nine quarter units) of college credit for each AP course. Refer to the Advanced Placement Examination Credit table that follows for transfer credit awarded.

For questions or information, please call the Office of Enrollment Services at (562) 985-5471 or consult the department.

| ADVANCED PLACEMENT EXAMINATIONS CREDIT |  |  |  |
| :---: | :---: | :---: | :---: |
| AP Exam | AP Score | GE Designation | Credit |
| Art History | 3-5 | C. 1 Fine Arts | ART - 6 units electives |
| Art Studio: <br> 2D Design <br> 3D Design <br> Drawing Portfolio | $3-5$ $3-5$ $3-5$ | No GE Credit No GE Credit No GE Credit | ART-3 units electives ART-3 units electives ART - 6 units electives |
| Biology | 3 <br> 4 <br> 5 | B.1a Life Science w/lab <br> B.1a Life Science w/lab <br> B.1a Life Science w/lab | BIOL 200-4 units, \& 2 units BIOL electives BIOL 211A-5 units, \& 1 unit BIOL elective BIOL 211A-3 units, \& BIOL 211B (not GE) 3 units |
| Chemistry | 3 $4-5$ | B.1b Physical Science w/lab <br> B.1b Physical Science w/lab | CHEM 100 <br> - 4 units, \& 2 units CHEM electives CHEM 111A - 5 units, \& 1 unit CHEM elective |
| Computer Science A Computer Science AB | $\begin{aligned} & 3-5 \\ & 3-5 \end{aligned}$ | No GE credit <br> No GE credit | 3 units elective 6 units elective |
| Economics: <br> Macro <br> Micro | $3-5$ $3-5$ |  <br> Behavioral Science <br>  <br> Behavioral Science | ECON 100-3 units <br> ECON 101-3 units |
| English: <br>  <br> Composition <br>  <br> Composition | $3-5$ $3-5$ | A. 1 $\text { A. } 1 \& C .2 a$ | ENGL 100-3 units, \& 3 units ENGL electives <br> ENGL 100-3 units, \& ENGL 180-3 units |

\begin{tabular}{|c|c|c|c|}
\hline Environmental Science \& 3-5 \& No GE credit \& 3 units lower division electives \\
\hline \begin{tabular}{l}
French: \\
Language \\
Literature
\end{tabular} \& \begin{tabular}{l}
3 \\
4,5 \\
3-5
\end{tabular} \& \begin{tabular}{l}
C.2c Foreign Language \\
C.2c Foreign Language
\end{tabular} \& \begin{tabular}{l}
FREN 201A \\
- 4 units, \& FREN \\
101B-2 units \\
FREN 201B, 4units, \\
\& FREN 201A - 2 \\
units \\
FREN 490-3 units
\end{tabular} \\
\hline \begin{tabular}{l}
German: \\
Language
\end{tabular} \& 3-5 \& C.2c Foreign Language \& \begin{tabular}{l}
GERM 301 \\
- 4 units, \& 2 units GERM electives
\end{tabular} \\
\hline Geography: Human Geography \& 3-5 \& D. 2 \& \begin{tabular}{l}
GEOG 160 \\
- 3 units, \& 3 units GEOG electives
\end{tabular} \\
\hline \begin{tabular}{l}
History: \\
United States \\
European \\
World History
\end{tabular} \& \(3-5\)
\(3-5\)
\(3-5\) \& \begin{tabular}{l}
D. 1 a (HIST 172) \& D. 2 (HIST 173) \\
D. 2 (HIST 131) \& D. 2 (HIST 132) \\
D. 2 Global
\end{tabular} \& \begin{tabular}{l}
HIST 172-3 units, \& HIST 173-3 units \\
HIST 131-3 units, \& HIST 132-3 units HIST 212-3 units, \& 3 units electives
\end{tabular} \\
\hline Italian \& \[
\begin{aligned}
\& 3 \\
\& 4-5
\end{aligned}
\] \& C.2c Foreign Language C.2c Foreign Language \& ITAL 201A - 4 units ITAL 201B-4 units \\
\hline Latin:
Vergil

Literature \& \begin{tabular}{l}
3 <br>
4-5 <br>
3 <br>
4-5

 \& 

C.2c Foreign Language C.2c Foreign Language <br>
C.2c Foreign Language <br>
C.2c Foreign Language
\end{tabular} \& LAT 101B - 2 units, \& LAT 301-2 units, \& LAT 4012 units LAT 301-3 units, \& LAT 401-3 units LAT 101B - 2 units, \& LAT 301-2 units, \& LAT 403-2 units LAT 301-3 units, \& LAT 403-2 units, \& 1 unit upper division LAT electives <br>

\hline Mathematics: Calculus AB* Calculus BC \& $$
\begin{aligned}
& 3-5 \\
& 3-5
\end{aligned}
$$ \& \[

$$
\begin{aligned}
& \text { B. } 2 \\
& \text { B. } 2
\end{aligned}
$$

\] \& | MATH 117-2 units, \& MATH 122-4 units |
| :--- |
| MATH 122-3 units, \& MATH 123-3 units | <br>


\hline | Music: |
| :--- |
| Theory | \& 3-5 \& No GE Credit \& MUS - 6 units electives <br>


\hline | Physics: |
| :--- |
| Physics B |
| Physics C |
| (Mechanics) |
| Physics C |
|  |
| Magnetism) | \& $3-5$

$3-5$

$3-5$ \& | B.1b Physical Science w/lab |
| :--- |
| B.1b Physical Science w/lab |
| B.1b Physical Science w/lab | \& | PHYS 100A |
| :--- |
| - 3 units, \& PHYS 100B-3 units PHYS 151-3 units |
| PHYS 152-3 units | <br>


\hline | Political Science: |
| :--- |
| United States |
|  |
| Politics (1 semester) |
| Comparative |
|  |
| Politics (1 semester) | \& $3-5$


$3-5$ \& | D. 1b (Must take POSC 326) |
| :--- |
| D. 2 Global | \& | POSC 100-3 units (does not include California State and local government) |
| :--- |
| POSC 215-3 units | <br>


\hline | Psychology |
| :--- |
| (1 semester) | \& 3-5 \& D. 2 \& PSY 100-3 units <br>

\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|}
\hline \begin{tabular}{l}
Spanish: \\
Language \\
Literature
\end{tabular} \& \(3-4\)
5

$3-5$ \& | C.2c Foreign Language C.2c Foreign Language |
| :--- |
| No GE Credit | \& SPAN 101B-2 units, \& SPAN 201A - 4 units SPAN 201A - 2 units, \& SPAN 201B - 4 units SPAN 310-3 units, \& 3 units SPAN electives <br>

\hline Statistics (1 semester) \& 3-5 \& B. 2 effective Spring 2006 \& MATH 180-3 units <br>

\hline \multicolumn{4}{|l|}{| Notes for Advanced placement: |
| :--- |
| *Credit is awarded for a 3-5 on the $A B$ exam score or the $A B$ subscore on the $B C$ exam. |
| A maximum of 6 units will be granted for each exam. If the number of units per course equivalency exceeds 6 , credit for 6 units will be awarded and the course waived. Credit can only be awarded once per course. Example: if a student takes Calculus $A B$ \& $B C$, only nine units can be awarded. |} <br>

\hline
\end{tabular}

## International Baccalaureate Credit

Students with scores of 5 or higher in International Baccalaureate Higher Level courses will be awarded baccalaureate credit of 4 to 10 units, depending on course equivalency. Applicants to CSULB who wish to obtain lower-division course credit for completed International Baccalaureate Higher Level examinations must submit an official IB transcript. Course equivalency for Higher Level examinations completed with a grade of 5 or higher is listed in the International Baccaluareate Examination Credit table that follows.

For questions or information, please call the Office of Enrollment Services at (562) 985-5471 or consult the department. (PS 98-08)

| INTERNATIONAL BACCALAUREATE HIGHER LEVEL EXAMINATIONS CREDIT |  |  |
| :---: | :---: | :---: |
| IB Exam | IB <br> Score | Credit |
| Arts, Visual | $\begin{aligned} & 5,6 \\ & \text { or } 7 \end{aligned}$ | ART electives - 4 units |
| Arabic A2 <br> Arabic B |  | 4 units ARAB electives ARAB 201B - 4 units |
| Biology | $\begin{array}{\|l\|} \hline 5 \\ 6 \\ 7 \end{array}$ | BIOL 200-4 units, \& 2 units BIOL electives BIOL 211A - 5 units, \& 1 unit BIOL elective BIOL 211A - 3 units, \& BIOL 211B - 3 units |
|  <br> Management | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | CBA 130-3 units, \& 1 unit CBA elective |
| Chemistry | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | CHEM 111A - 5 units, \& 1 unit CHEM elective |
| Chinese A2 | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | CHIN 451-3 units, \& 1 unit upper division CHIN elective. |
| Classical Greek | $\begin{aligned} & 5,6 \\ & \text { or } 7 \end{aligned}$ | GK 101A - 4 units, \& GK 101B - 4 units |
| Computing Studies | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | CECS electives - 4 units |


| Economics | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | ECON 100-3 units, \& ECON 101 - 3 units |
| :---: | :---: | :---: |
| English A1 <br> English A1 <br> English B | $\begin{aligned} & 5 \text { or } 6 \\ & 7 \\ & 5,6 \\ & \text { or } 7 \end{aligned}$ | ENGL 100-3 units \& ENGL 180-3 units <br> ENGL 100-3 units \& ENGL 184-3 <br> units <br> ENGL 100-3 units \& ENGL 180-3 <br> units |
| French A2 <br> French B | $\begin{aligned} & 5,6 \\ & \text { or } 7 \\ & 5,6, \\ & \text { or } 7 \end{aligned}$ | FREN 312A - 3 units, \& FREN 312B -3 units \& FREN 411-3 units FREN 312A - 3 units, \& FREN 312B - 3 units \& FREN 314-3 units |
| Geography | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | GEOG 100-3 units, \& 1 unit GEOG elective |
| German A2 <br> German B | 5, 6, or 7 <br> 5, 6, or 7 | GERM 301-4 units, \& GERM 302 <br> - 4 units, \& 2 units upper division GERM electives <br> GERM 301-4 units, \& GERM 302 - 4 units |
| History of Africa | $\begin{aligned} & 5,6, \\ & \text { or7 } \end{aligned}$ | 4 units HIST electives |
| History of the Americas | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | 6 units HIST electives |
| History of Asia: <br> East \& Southeast Asia <br> \& Oceania <br> South Asia and the <br> Middle East | $\begin{aligned} & 5,6, \\ & \text { or } 7 \\ & 5,6, \\ & \text { or } 7 \end{aligned}$ | 4 units HIST electives <br> 4 units HIST electives |
| History of Europe | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | HIST 132-3 units, \& 3 units HIST electives |
| History and Culture Islamic World | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | 4 units HIST electives |
| Italian A2 <br> Italian B | $\begin{aligned} & 5,6 \\ & \text { or } 7 \\ & 5,6, \\ & \text { or } 7 \end{aligned}$ | ITAL 312A - 3 units, \& ITAL 312B - 3 units, \& ITAL 411-3 units ITAL 312A - 3 units, \& ITAL 312B - 3 units, \& ITAL 314-3 units |
| Japanese A2 <br> Japanese B | $\begin{aligned} & 5,6, \\ & \text { or } 7 \\ & 5,6, \\ & \text { or } 7 \end{aligned}$ | JAPN 421-3 units, \& JAPN 302-3 units, \& JAPN 301-3 units JAPN 201-4 units, \& JAPN 202-4 units. |
| Korean B | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | KOR 102-4 units |
| Latin | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | LAT 301-3 units, \& 3 units of upper division Latin electives |
| Math - Higher Level | $\begin{aligned} & \hline 5,6, \\ & \text { or } 7 \end{aligned}$ | MATH 114-3 units, \& MATH 122 - 4 units |
| Music | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | MUS 160-3 units \& MUS 490-3 units |
| Philosophy | $\begin{aligned} & \hline 5,6, \\ & \text { or } 7 \end{aligned}$ | PHIL 100-3 units, \& 1 unit PHIL elective |
| Physics | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | PHYS 100A-4 units, \& PHYS 100B - 4 units |
| Portuguese A2 <br> Portuguese B |  | 4 units PORT electives PORT 201B - 4 units |


| Psychology | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | PSY 100-3 units, \& 1 unit PSY elective |
| :---: | :---: | :---: |
| Russian A2 <br> Russian B | $\begin{aligned} & 5,6, \\ & \text { or7 } \\ & 5,6, \\ & \text { or } 7 \end{aligned}$ | RUSS 312-3 units, \& RUSS 314-3 units, \& 3 units upper division RUSS electives RUSS 312-3 units, \& RUSS 314-3 units |
| Social and Cultural Anthropology | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | 4 units ANTH electives |
| Spanish A2 <br> Spanish B | $\begin{aligned} & 5,6, \\ & \text { or } 7 \\ & 5,6, \\ & \text { or7 } \end{aligned}$ | SPAN 300-6 units, \& SPAN 310-3 units <br> SPAN 300-6 units, \& SPAN <br> 314-3 units |
| Theatre Arts | $\begin{aligned} & 5,6, \\ & \text { or } 7 \end{aligned}$ | THEA 122-3 units, \& 1 unit THEA elective |

## Credit for Other External Examinations

In addition to the Advanced Placement and International Baccalaureate Examinations, California State University, Long Beach grants unit credit to those students who pass the following examinations that have been approved for credit by the CSU system: the College Level Examination Program (CLEP) examinations in College Algebra Trigonometry, Calculus/Elementary Functions, French, General Chemistry, German, and Spanish; and the American Chemical Society Cooperative Examination. (PS 87-04)

## Unit Credit by Examination

Students may also challenge some courses by taking examinations developed at the campus. Credit will be awarded to those who pass them successfully. Credits earned in this manner will be recorded as test credit on the student's transcript and will be counted toward the total number of units required for the degree although they will not be included in calculation of the grade-point average. Credit by examination may not be used to fulfill the minimum residence requirement.

Students must be enrolled in the University and in the course for which they wish to receive credit by examination. Enrollment is by permission of the department and is only available during the academic semester in which the course is being offered. Students must secure a signed and dated approval form from the department PRIOR to enrolling in the course. Students must provide the instructor with a copy of the signed and dated approval form at the first class meeting. The instructor will ensure that the examination is conducted, scored, and the results reported prior to the end of the third week of classes. Students who pass the examination will receive a grade of "CR." Students who do not pass the examination have two options:

1. continue in the course as a regular student; or
2. withdraw from the course.

The University sets no maximum on the number of credits a student may receive by examination. Not all courses, however, are available for credit by examination. Information about courses for which credit by examination is not permitted is available in the Department Office, in the College Office, and the Office of Enrollment services. A student may NOT receive credit by examination:

1. for an activity course,
2. for any course which is a prerequisite to one for which credit has been received, (see department for possibility of course waiver),
3. to remove a grade of "F," "U," "NC,"
4. to satisfy the courses required for a major in a master's degree.
5. for any course in which the content or methodology is such that an examination does not appropriately measure competence.
Application forms to apply for credit by examination are available in the Office of Enrollment Services. Procedures and criteria for requesting unit credit by examination in a given course are available in the appropriate department office. (PS 87-04)

## Substitution of Courses

Students who believe that a course they have taken (or intend to take) may be appropriate to their program and that this course could substitute for a specified course requirement may request that the department submit an official authorization for substitution. Course substitutions are normally limited to cases where the required course cannot be offered or where the student has taken a similar but not identical course elsewhere. (PS 87-04)

## Waiver of Course Requirement

In addition, students who believe that previous training has sufficiently prepared them in a certain area may request a waiver of a specific course requirement (subject credit only). The student will be required to justify the request in a way acceptable to the department. A waiver of specific course requirements does not reduce the total number of credits required for the major or the degree. (PS 87-04)

## International Program Credit

Course credits earned in universities abroad may be accepted for degree credit at CSULB subject to evaluation by the cognizant department or program upon admission of the student to the University. CSULB students who desire, subsequent to admission, to take courses at a foreign university for degree credit must have each such course approved in advance in writing by the Chair of the appropriate department or program.

The Center for International Education administers many international education and exchange programs. Students fully accepted into one of these programs may, in most cases, continue CSULB residency while studying in the approved foreign institution. Some courses taken through these programs do not have to be approved in advance.

## Credit for Noncollegiate Instruction

The California State University, Long Beach grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate degree, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the Guide to the Evaluation of Educational Experience in the Armed Services and the National Guide to Educational Credit for Training Programs.

## Enrollment of Seniors in Graduate Courses

Undergraduates may enroll in graduate courses only under the conditions specified below:

## Graduate Credit Earned as a Senior

Graduate credit usually may not be earned in advance of the baccalaureate degree. Seniors may, however, be granted approval to earn a maximum of 12 units of course work in the 400 and 500 levels designated as acceptable for graduate credit and taken at this university towards their prospective graduate programs (based upon faculty recommendation, academic performance (in general a grade-point average of 3.0 (B) in the major), and promise of academic achievement in post-graduate study). Approval is subject to the following conditions: (a) the course work must be in addition to that required for the undergraduate major; and (b) the undergraduate student must have a "Petition to Earn Graduate Credit in the Senior Year" approved by the departmental graduate advisor and the department chair prior to enrollment. (PS-92-08)

In those areas in which graduate credit is for a credential only, the petition must be submitted to the appropriate department in the College of Education. Petitions submitted after completion of course(s) will not be approved.

## Senior Enrollment in Graduate Courses for Undergraduate Credit

Under special conditions, seniors who have a 3.0 grade-point average or better in their major and who have adequate undergraduate preparation in the subject may enroll in up to 12 units in the 500-599 series to fulfill the elective requirements of the bachelor's degree. The course work may not be applied to the units of 500-600 level course work required by the department or college for the master's degree. The student must have a "Petition to Earn Credit Toward a Bachelor's Degree for a 500-Level Course Taken in the Senior Year" approved by the instructor and department chair before registration in the class(es) is permitted. (PS 92-09)

## Grades and Grading Procedures

Definitions of Grades and Grading Symbols

## Grades

The following definitions apply to grades assigned in all undergraduate and graduate courses.
" $A$ " - Performance of the student has been at the highest level, showing sustained excellence in meeting all course requirements and exhibiting an unusual degree of intellectual initiative.
" $B$ " - Performance of the student has been at a high level, showing consistent and effective achievement in meeting course requirements.
"C" - Performance of the student has been at an adequate level, meeting the basic requirements of the course.
" $D$ " - Performance of the student has been less than adequate, meeting only the minimum course requirements.
"F"- Performance of the student has been such that minimal course requirements have not been met.

In addition to the standard grades, the University permits students to select evaluation on a "Credit" or "No Credit" basis. These grades are defined as follows:
"CR/NC" - A "CR" is equivalent to an " $A$ ", " $B$ ", or " $C$ ", and "NC" is equivalent to a "D", " $F$ ", or "WU". In two circumstances a grade of "CR" reflects work at the level of "B" or better, and a grade of "NC" reflects work at the level of "C", "D", "F", or "WU". Those two circumstances are 1) in certain professional preparation courses, providing that the students are notified of such a policy both in class materials and in the Catalog course description; and 2) for graduate students in all courses at the $300,400,500$, and 600 levels.
There are special regulations and procedures governing the "CR/NC" grading system described below.

## Administrative Grading Symbols

The following definitions apply to administrative grading symbols assigned in all undergraduate and graduate courses.
"AU" - Audit. Enrollment as an auditor is subject to permission of the instructor; provided that enrollment in a course as an auditor shall be permitted only after students otherwise eligible to enroll on a credit basis have had an opportunity to do so. Auditors are subject to the same fee structure as credit students and regular class attendance is expected. It is the responsibility of the student to request from the instructor what is meant by regular class attendance. The symbol "AU" is posted to the student's permanent academic record unless the student fails to attend a sufficient number of class meetings. In these cases, the instructor will request that the student be administratively withdrawn from the course. Once enrolled as an auditor, a student may not change to credit status unless such a change is requested prior to the last day to add classes. A student who is enrolled for credit may not change to audit after the last day to add classes.
"I" - Incomplete. The symbol "I" indicates that a portion of required course work (normally not more than one third) has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons; and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the Incomplete. A final grade is assigned when that work has been completed and evaluated.
An "l" must normally be made up within one calendar year immediately following the end of the term during which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. An incomplete grade cannot be resolved after graduation. Failure to complete the assigned work will result in an "I" being converted to an "F," except as noted in item 3), below.
An extension of time may be granted for contingencies such as military service or documented, serious health or personal problems.

The conditions for removal of the incomplete shall be reduced to writing by the instructor on a "Requirements for Assigning an Incomplete Grade" form. This form shall include a statement of:

1. all work completed in the course, the grades assigned for that work, and the percentages of the final grade accounted for by each item;
2. the work not completed and the percentage that each uncompleted assignment will count toward the final grade; and
3. the final grade the instructor will assign if the course requirements are not completed within one calendar year, or a shorter period as specified on the form, immediately following the term in which the "I" was assigned, without respect to continuous enrollment of the student during this period.
A copy of the agreement is to be given to the student, a copy is to be retained in the department office, and a copy is to be filed with the Office of Enrollment Services at the time final grades are submitted. Normally, the student should sign the "Incomplete form." If the student is eligible for an Incomplete, a faculty member may assign an " l " even when the student cannot be present to sign the form. In such a case, the instructor will forward to the student a copy of the form via the department office. When the work agreed upon has been completed and evaluated, a final grade will be assigned by an instructor. If an "Incomplete" is assigned without an "Assignment of Incomplete Grade" form attached, or with a form which is not filled in acceptably, the symbol of "RD" will be assigned to the student. The "Assignment of Incomplete Grade" form will be considered unacceptable if:
A. more than one-third of the work remains to be completed, and no justification has been provided;
B. the work required to complete the course has not been specified;
C. the faculty member failed to sign the form; or
D. the percentage fields have not been filled in and a justification for their absence has not been supplied.
The appropriate associate dean of the college shall determine whether or not the justification is adequate. Notice of the missing form, or a copy of the unacceptable form will be sent to the department chair with the request that the chair work with the faculty member to provide the information necessary to assign the grade of "Incomplete."
"RD" - Report Delayed. This symbol is used exclusively by Enrollment Services to permit processing of all final course grades when the final course grades for an entire course section have not been reported by the instructor. The symbol does not imply any academic evaluation. If an instructor fails to report a grade for an individual student, Enrollment Services will assume that an "I" could not be assigned and so will enter a symbol "WU," discussed below.
"RP" - Report in Progress. The "RP" symbol is used in connection with courses requiring multiple enrollment, i.e., that extend beyond one academic term. It indicates that work is in progress but that assignment of a final grade must await completion of additional work. Re-enrollment is permitted prior to assignment of a final grade provided the cumulative units attempted do not exceed the total number applicable to the student's educational objective. Work is to be completed within one calendar year immediately
following the end of the term during which it was assigned except for graduate degree theses. If the "RP" symbol is not replaced by a terminal grade within the specified time period or prior to the student's declared graduation date, it will be changed to a "W". An "RP" symbol cannot be replaced by an "I" (Incomplete) symbol; an " 1 " is not a final course grade.
"W" - Withdrawal. The symbol "W" is used to signify that a student formally withdrew from the course; no reference or implication of passing or failing progress at the time of withdrawal is made or implied. The symbol " W " is not a grade and does not alter a student's grade point average.
"WU" - Unauthorized Withdrawal. The symbol "WU" indicates that an enrolled student did not complete course requirements but did not withdraw from the course. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible (letter grades "A"-"F" or an Incomplete). For purposes of grade point average this symbol is equivalent to an "F." A student who receives a "WU" cannot complete additional work and have the "WU" changed to a letter grade. In courses which are graded Credit/No Credit or in cases where the student has elected Credit/No Credit evaluation, use of the symbol "WU" is inappropriate and "NC" will be used instead. Students who receive "WU"s in their first semester of enrollment at CSULB will have those "WU"s automatically changed to "W"s. In such cases the student will be notified that this policy applies for that first semester at CSULB only.

## Course Grading Options

The faculty determine in advance which courses may be taken for letter grade only (A-F), "CR/NC" only, or either. When a course is designated for "CR/NC" grading only or for letter grade only, mention of this fact shall be incorporated in the Catalog course description.

## Credit/No Credit Grading

Any undergraduate course may be designated for or closed to the option of "CR/NC" grading whether or not the course be a requirement for an undergraduate degree major, minor, certificate, credential, or concentration.

No course in which a grade of "CR" has been assigned may be used to fulfill the requirements for a master's degree, except that the grade of "CR" may be permitted for master's theses or projects (to a maximum of six units) when the individual department has specifically designated "CR/NC" grading for the thesis/project course in the department, and for fieldwork, practicum, and/or internship courses (also to a maximum of six units). The option of "CR/NC" grading for graduate students in undergraduate courses is subject to specific regulations of the individual departments regarding their graduate students and regarding the authorization for this option intrinsic to the approved course. Otherwise, no limitation exists as to the number of courses taken by graduate students under this policy.

An undergraduate student may elect "CR/NC" grading in no more than a total of 24 units, of which no more than twelve (12) may be upper-division units. No more than eight (8) units per semester may be taken for "CR/NC" grades.

Exemptions from these limitations are: (1) courses graded "CR/NC" taken at another institution, (2) course credit earned by examination, and (3) courses in which "CR/NC" grading is the only form of grading.

The decision to elect the "CR/NC" grading option for a course must be made by the last day to add classes. To elect "CR/NC" grading, the student must obtain the signature of the student's major advisor and a stamp from the department/program in which the course is offered on the appropriate form. The student must then file the signed form with the Office of Enrollment Services. The decision to register for a course on a "CR/NC" basis remains in effect unless a change is requested prior to or on the last day to add classes.

The only exception to this rule is for students who declare new majors after the last day to add classes. If the newly declared major requires letter grading for the course in question and the student has elected "CR/NC" grading, then the student may request that letter grading (A-F) be used. Such a change must be requested no later than the last day of instruction. The grading option may not be changed after the end of the semester.

## Final Assessments

1. Every course except Distance Learning Courses shall meet at the time listed in the Final Examination Schedule. The College Dean must approve any exception to this requirement.
2. Every course shall have a final assessment appropriate to the course that shall cover a significant proportion of the course. The College Dean must approve any exception to this requirement.

## Assignment and Change of Grades

## Assignment of Grades

1. The faculty member of record in a course section (i.e., the faculty member officially assigned to teach that section) has the exclusive responsibility and authority to assign grades to all students in that section, subject only to the following exceptions:
A. Should the faculty member of record be unable or unwilling to complete this task because of death, disability, separation of employment, or prolonged absence from campus during a regular academic term, the department chair or program director, following notification of the faculty member of record where appropriate and with the approval of the college dean, may appoint another faculty member with the most appropriate available disciplinary qualifications to complete the assignment of grades; or
B. In the event of a successful grade appeal (see section on Change of Grade, below.)
2. Final course grades shall be based on at least three (3), and preferably four (4) or more, demonstrations of competence by the student.
3. In no case shall the grade on any single demonstration of competence count for more than one-third of the course grade. This provision does not abridge a faculty member's right to assign a course grade of "F" for a single act of cheating.
4. At the start of the course, instructors shall provide to their students in writing the grading policies and practices to be employed in the class and the rules that will apply to withdrawals.
5. Instructors shall keep a record of students' scores on each of the demonstrations of competence on which the final grade is based.
6. Instructors are expected to provide students with an opportunity for demonstration of competence, relevant to the determination of their final grade in the course, as early as is reasonable and no later than the mid-point of the term.
7. Students have a right to be informed promptly of their scores and to review each of their demonstrations of competence with their instructors.
8. If materials submitted for a demonstration of competence are not returned, these materials will be retained for at least two (2) subsequent semesters by the instructor. The materials shall be accessible to the department office. In the absence of the original instructor, an instructor with appropriate qualifications may be appointed by the chair to review the demonstration of competence with the student.
9. Grades reported to the Office of Enrollment Services are considered to be official and final course grades.

## Conditions and Procedures for Change of Grade

1. Changes to grades or grading symbols can be made only on the basis of:
1) an error,
2) a successful grade appeal. (See the separate policy statement on Grade Appeals.), or
3) resolution of an Incomplete ("I"). A final course grade or grading symbol shall not be changed on the basis of additional work submitted, except where an "I" was recorded.
2. Original final course grades are replaced only when
1) the change is due to an error,
2) the grade change is the result of a grade appeal, or
3) Enrollment Services receives a late report of final course grades for which the symbol "RD" was substituted pending receipt.
3. Original final course grades or grading symbols are not replaced when the change of grade is the result of
1) the resolution of an "Incomplete," or
2) the repetition of a course. Final course grades or administrative grading symbols must be recorded for all enrollments beyond the census date.
4. Except for changes of grades resulting from grade appeals, all changes of final course grades must be filed within one year from the date of the filing of the first final course grade, without respect to continuous enrollment of the student. Only as the result of a successful grade appeal or the correction of an error will a final course grade be changed after the award of a degree or credential or certificate.
5. All requests for change of a final course grade shall carry the recommendation of the instructor (except as provided for in the Grade Appeals Procedures), the Department Chair, and the approval of the Dean of the College. (PS 05-07)

## Final Course Grades

Final course grades will be available via "MyCSULB" approximately two-three weeks after the end of each semester or session.

## Student Grade Record

A record is kept and grade or administrative symbol notations are indicated for all enrollments beyond the second week of instruction.

## Repeating Courses

In most cases a student may not take or receive unit credit for a course for which the student has already received a CR or a grade of $C$ or better. This principle applies whether the course was initially taken at CSULB, at a high school, or at another college or university. The only exceptions to this rule are: (1) when a course has been specifically designated as repeatable for credit up to a specific maximum number of units (there may also be other limitations, such as a requirement that each repetition be with a different instructor and/or on a different topic); (2) activity courses; (3) upper-division courses in an undergraduate student's major completed more than ten years prior to the student's graduation; and (4) courses on a graduate student's program of study taken more than seven years prior to graduation. (PS 99-17)

## Repetition of Courses for Satisfactory Grade (Repeat and Delete)

Undergraduate students and postbaccalaureate students who are pursuing a second (or subsequent) baccalaureate degree may repeat, for the purpose of excluding the grade from grade-point determination, an undergraduate course taken at California State University, Long Beach in which a grade of D, F, U, or WU was received. Postbaccalaureate students pursuing credential programs, certificate programs, or master's degrees are not eligible for the Repeat and Delete policy.

Eligible students may repeat a course once for the purpose of deleting a grade, without prior departmental approval, if the course was taken both times at CSULB. If the second attempt of the course is successful (C or better), the deletion of the first attempt is automatically calculated at the end of the semester in which the course was repeated. Although the first grade will remain on the permanent record, the grade and grade points of the repeated course on the second attempt will be those used in determining the grade-point average and units earned, provided the second grade was C or better.

Students are not prohibited from continuing to repeat a course in which the grade for the second attempt is unsatisfactory (D, F, U, WU), but, in that case, grades earned for all attempts will remain in the grade-point determination, and the units earned in the course will be applied to the degree only once. While there is no time limit for repeating a course, the student's permanent record may not be altered after a degree has been granted.

If students wish to exclude from grade-point determination a grade of $D, F, U$, or $W U$ in a course taken at another institution, they may do so by enrolling in an equivalent course at CSULB. A "Notice of Intent to Repeat
a Transfer Course" form must be filed with the Office of Enrollment Services. The department in which the course is taught must indicate on the form which particular course may be repeated to delete the previous grade. An official transcript from the institution where the original course was taken must accompany the form. Only one repeat is allowed for the purpose of deleting a grade, and the repeated grade and grade points will be used in the overall grade-point determination, provided the second grade was $C$ or better.

A grade received in a course taken at another institution may not be used to delete a grade in an equivalent course taken at CSULB.

## Grade Appeals

Students have the right to formally appeal the final grade, but only the final grade, in a course. Appeals are limited to situations in which the student believes the grade was "prejudicially," "capriciously," or "arbitrarily" assigned. The appeal must be initiated within the first regular semester after assignment of the grade. It must first be directed to the instructor of the course, orally or in writing. If further action is necessary, the student should appeal in writing to the department chair. If further action is necessary, the department chair will forward the appeal in writing to the Department Grade Appeals Committee. If the issue continues to remain unresolved, the written appeal can be directed to the Grade Appeals Committee of the college in which the course was taken. Information about college grade appeals committees and the University policy (PS 9916) can be obtained from the office of the college dean.

## Scholastic Probation and Disqualification

## Academic Probation

Undergraduate students are placed on academic probation if at any time their cumulative grade-point average in all college work attempted or their cumulative GPA at California State University, Long Beach falls below 2.0 (C). Graduate students are placed on academic probation when their cumulative grade-point average or grade-point average on all courses applicable to the degree falls below 3.0.
Other post-baccalaureate students are placed on academic probation when their cumulative grade-point average falls below 2.5.

Undergraduate students will be removed from academic probation when their cumulative grade-point average in all college work attempted and their cumulative grade-point average at California State University, Long Beach is 2.0 (C) or higher. Students who remain on academic probation for more than two consecutive semesters are subject to academic disqualification. Students actively participating in an intervention program may request an extension of time to achieve a 2.0 GPA. Such extension will be granted if the student is making progress toward the degree.

Graduate students will be removed from academic probation when their overall grade-point average and gradepoint average on all courses applicable to the degree are 3.0 (B) or higher.

Other post-baccalaureate students will be removed from academic probation when their overall grade-point average is 2.5 or higher. (PS 02-07)

## Strategies for Academic Success Program (Academic Probation Intervention)

This is a university-wide program designed for undergraduate students who are on academic probation (either the CSULB or all college cumulative grade-point average is below 2.0). The program includes information about university policies and procedures, the reasons students encounter academic problems, and, lastly, how and where to receive assistance from campus services and offices to be a successful student.

Any undergraduate whose CSULB or overall cumulative grade-point average (GPA) is below 2.0 may participate in the program. Declared graduate students and credential candidates who are on probation should contact their department for information and assistance.

Attendance in this program is not mandatory but it is highly recommended.

If you would like more information or if you would like to sign up for a workshop please call us at (562) 985-7847 or stop by the Academic Advising Center, located in Academic Services (formerly Library East), room 124. Workshops are scheduled at a variety of times during each semester.

Graduate and post-baccalaureate students are subject to disqualification if while on probation they fail to earn grades of sufficient quality to remove themselves from probationary status. Disqualification will bar such students from any further enrollment at the campus.

## Administrative - Academic Probation

An undergraduate or graduate student may be placed on administrative-academic probation by action of appropriate campus officials for any of the following reasons:

1. Withdrawal from all or a substantial portion of a program of studies in two successive semesters or in any three semesters;
2. Repeated failure to progress toward the stated degree objective or other program objective (when such failure appears to be due to circumstances within the control of the student);
3. Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (example: failure to take placement tests, failure to complete a required practicum).

## Academic Disqualification

Undergraduate students on academic probation are subject to academic disqualification:

1. As freshmen (fewer than 30 semester-hours of college work completed), if their grade-point average falls below 1.5 on all units attempted or on all units attempted at California State University, Long Beach;
2. As sophomores (fewer than 59 semester-hours of college work completed), if their grade-point average falls below 1.7 on all units attempted or on all units attempted at California State University, Long Beach;
3. As juniors ( 60 to 89 semester-hours of college work completed), if their grade-point average falls below 1.85 on all units attempted or on all units attempted at California State University, Long Beach;
4. As seniors ( 90 or more semester-hours of college work completed), if their grade-point average falls below 1.95 on all units attempted or on all units attempted at California State University, Long Beach; and
5. At any time, if the student remains on academic probation for more than 2 consecutive semesters (i.e., the cumulative GPA remains below 2.0 at the end of 2 consecutive semesters).
In addition to the above disqualification standards applicable to students on probation, individuals not on probation may be disqualified when the following circumstances exist:
6. At the end of any semester, if the student has a cumulative grade-point average below 1.0; and
7. The cumulative grade-point average is so low that in view of the student's overall educational record it seems unlikely that the deficiency will be removed within a reasonable period.

## Disqualification From Impacted Programs

Students who fail to maintain an overall GPA of 2.0 will be immediately removed from an impacted major and placed in the undeclared category (Major Code 0000) or in a general category appropriate to the discipline. To be reinstated as majors in the impacted program, they must reapply at the time when change-of-major requests are normally accepted.

## Administrative - Academic Disqualification

Students who have been placed on administrativeacademic probation may be disqualified from further attendance if:

1. The conditions for removal of administrative-academic probation are not met within the period specified;
2. The students become subject to academic probation while on administrative-academic probation;
3. The students become subject to administrative-academic probation for the same or similar reason for which they have been placed on administrative-academic probation previously, although not currently in such status.
For students who subsequently become eligible for
Reinstatement (see below), disqualification under the provisions of the preceding paragraphs constitutes a break in "continuous enrollment" within a degree major program; therefore, students disqualified may not elect regulations in effect prior to disqualification.

## Reinstatement

In order to be considered for reinstatement to the University, a disqualified student must demonstrate progress toward the degree. This demonstration can be achieved by:

1. Completing courses through University College and Extension Services at CSULB; or
2. Completing classes at other regionally accredited academic institutions.
All classes considered for reinstatement in the student's petition must be applicable for degree credit and toward the student's General Education or major requirements.

Progress toward meeting the GPA requirement can be demonstrated by reducing the deficiency in grade-point average by one-half at CSULB or by making equivalent grades in courses taken at other regionally accredited academic institutions. Grades earned at other regionally
accredited academic institutions will not reduce the deficiency in the CSULB grade-point deficiency. Grades earned elsewhere are only indicators of academic ability.

After reducing the deficiency in the CSULB grade-point average and/or demonstrating academic ability at other regionally accredited academic institutions, the student may petition the Academic Appeals Committee for reinstatement. The petition must present evidence that the student is likely to achieve a satisfactory grade-point average and to complete requirements for the degree. The Academic Appeals Committee will only consider the petition for reinstatement of students who have remained outside of the university for at least one regular (fall or spring) semester after their dismissal. Disqualification from the University constitutes a break in residency and results in the loss of "catalog rights"; reinstatement does not automatically restore those rights under the election of regulations.

Petition forms are available at the Office of Enrollment Services and must be filed by December 1 for the spring semester or August 1 for the fall semester. Petitions received after that date will be returned to the student to be submitted for consideration for a future semester.

## Academic Renewal

A student may petition to have all grades and units received during one or two semesters of undergraduate work disregarded in the computation of GPA and academic standing. The work so disregarded may have been taken at any collegiate-level institution but no work taken during the disregarded terms, even if satisfactory, may apply toward baccalaureate requirements. All grades and units attempted will remain on record. At least 5 calendar years must have elapsed since the work in question was completed and the student must have subsequently completed 15 semester units with a 3.0 GPA (or 30 semester units with a 2.5 or 45 semester units with a 2.0) at this University before filing a request for disregarding the course work.

Petitions for disregarding course work must be submitted to the Office of Enrollment Services. Final determination will be made by the Vice President for Academic Affairs in consultation with the University Academic Appeals Committee. The petitioning student must certify that the work to be disregarded was not reflective of his or her present level of academic performance. This certification must include a statement explaining the extenuating circumstances causing the substandard performance during the term in question. The student must also provide evidence that it would be necessary to complete additional units and enroll for one or more additional semesters in order to qualify for the baccalaureate degree if the request were not approved. (PS 75-07)

## Academic Appeals

Students may petition for exception to academic policy. Typically, exception requests involve issues such as record errors, General Education substitutions or waivers, exceptions to the repeat/delete policy, and academic renewal.

Students can obtain the "Petition for Exception to Academic Policy" forms from the Office of Enrollment Services, Brotman Hall Room 101, or the Academic Advising Center, Academic Services, room 124. This written
appeal will be directed to the Academic Appeals Committee. Petitions must be filed with the Office of Enrollment Services, BH-101.

## Withdrawal Policy

Students are held responsible for completion of every course in which they register OR FOR WITHDRAWING DURING THE FIRST TWO WEEKS OF CLASSES FROM COURSES WHICH THEY DO NOT INTEND TO COMPLETE. Application for withdrawal from the University or from a class must be officially filed by the student at the Office of Enrollment Services whether the student has ever attended the class or not; otherwise, the student will receive a grade of "WU" (unauthorized withdrawal) in the course. Application for withdrawal is made at the Office of Enrollment Services.

## Withdrawal during the first two weeks of instruction:

Students may withdraw during this period and the course will not appear on their permanent records.
Withdrawal after the second week of instruction and prior to the final three weeks of instruction:
Withdrawal during this period is permissible only for serious and compelling reasons. Approval signatures of the instructor and department chairperson are required. The request and approvals shall state the reasons for the withdrawal. Students should be aware that the definition of "serious and compelling reasons" as applied by faculty and administrators may become narrower as the semester progresses. Copies of such approvals are kept on file in the Office of Enrollment Services.

## Withdrawal during the final three weeks of

instruction:
Withdrawal during the final three weeks of instruction are not permitted except in cases such as accident or serious illness where the circumstances causing the withdrawal are clearly beyond the student's control and the assignment of an Incomplete is not practical. Ordinarily, withdrawal in this category will involve total withdrawal from the campus except that a Credit/No Credit grade or an Incomplete may be assigned for courses in which sufficient work has been completed to permit an evaluation to be made. Request for permission to withdraw under these circumstances must be made in writing on forms available in the Office of Enrollment Services. The requests and approvals shall state the reasons for the withdrawal. These requests must be approved by the instructor, Department Chairperson, and Dean of the College. Copies of such approvals are kept on file in the Office of Enrollment Services.

## Instructor Withdrawal:

Faculty members may drop students who fail to attend class during the first week of the semester. However, students should not presume that they will be dropped by the faculty member. Students who have registered for a class, but never attended, should verify whether or not they are officially enrolled. It is the student's responsibility to withdraw officially from the class.
An instructor may also withdraw a student who has enrolled in a course requiring "permission of the
instructor" or completion of prerequisites if the student has not properly secured this permission or satisfactorily completed the prerequisites before enrolling. (PS 02-02)

## Medical Withdrawal

## Complete Medical Withdrawal

The University may allow a student to withdraw without academic penalty from all classes if the following criteria are met:
A. A completed Medical Withdrawal Form, including any required documentation, is submitted to the Office of Enrollment Services before the end of the semester, and
B. The student presents evidence to demonstrate that a severe medical or debilitating psychological condition prevented the student from attending and/or doing the required work of the courses to the extent that it was impossible to complete the courses.
The Provost (or designee) will review the evidence presented and, in consultation with appropriate medical or psychological professionals as needed, determine whether the request for a medical withdrawal should be granted.

Repeat Complete Medical Withdrawal: If the student has been granted a complete medical withdrawal in the immediately preceding term, then additional medical withdrawal requests must consider the question of whether or not the student can complete appropriate educational objectives, and must be reviewed on a case-by-case basis. After a repeat medical withdrawal is granted, the student may be required to obtain a clearance from an appropriate medical or psychological professional that states the student is well enough to return to classes with the full expectation that the student will be able to complete the semester and intended educational objectives.

## Partial Medical Withdrawal

Students seeking withdrawal from part of their enrollment for any reason, including medical or psychological reasons, are subject to the normal withdrawal policy and process.

## Cancellation of Registration or Withdrawal From Institution

Students who find it necessary to cancel their registration or to withdraw from all classes after enrolling for any academic term are required to follow the university's official withdrawal procedures. Failure to follow formal university procedures may result in an obligation to pay fees as well as the assignment of failing grades in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Information on canceling registration and withdrawal procedures is available from the Office of Enrollment Services, Brotman Hall 123, 562-9855471.

Students who receive financial aid funds must consult with the Financial Aid Office prior to withdrawing from the university regarding any required return or repayment of grant or loan assistance received for that academic term or payment period. If a recipient of student financial aid funds withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance received may be subject to return and/or repayment provisions.

## Refund of Student Fees

Regulations governing the refund of student fees in the California State University system are prescribed by the CSU Board of Trustees; see California Code of Regulations, Title 5, Education, Section 41802.

## Educational Leave

Any registered student, undergraduate or graduate, in good academic standing may request an Educational Leave. Students requesting an Educational Leave must complete an Educational Leave Form, in advance, including an explanation of their reasons for seeking the leave and a statement of when they intend to resume academic work. The completed form is to be submitted for approval to the student's department chair (undergraduate) or graduate advisor. Undergraduate students who have not declared a major should submit the completed form to the University Advising Center.

The minimum initial leave will be one full semester; the maximum will be one calendar year. A student may submit, in advance, a new educational leave request form for an extension of leave. Under no circumstances will the total number of approved educational leaves exceed two, nor will the duration of approved educational leaves extend beyond two calendar years.

Students returning from an approved educational leave are not required to submit an application for readmission to the university. Students returning from an absence for which an educational leave was appropriate but not approved in advance must reapply for admission and pay the reapplication fee.

Graduate students who plan to enroll for credit at another institution of higher education during the leave period must obtain prior approval for the transfer of course credit to the student's program from the department graduate advisor, department chair, and the College Dean or designee.

The period of an educational leave is counted in the calculation of elapsed time under the regulations governing the maximum period for completion of degree and remediation requirements. (See Baccalaureate and Graduate sections of this Catalog).

For the period of an educational leave the student's rights under the "Election of Regulations" rule are preserved, maintaining the right of the student to elect regulations as if he or she had maintained continuous attendance.

An educational leave presupposes no expenditure of University resources or faculty and staff time in behalf of the student during the period of the leave. In addition, no computer facilities, no library privileges, and no student services are available to a student on educational leave. (PS 84-06)

## BACCALAUREATE DEGREE INFORMATION

## Student Success and Graduation

CSULB's core academic purpose is to graduate students with highly valued degrees. Graduation rates for CSULB students have increased dramatically in recent years and the length of time it takes students to complete degrees has decreased. The key improvements that the campus made to improve graduation rates were to ensure the availability of needed classes and to provide much richer support for entering freshmen in the form of advising and learning communities. These improvements were key reasons why CSULB was named one of "America's Best Colleges and Universities" by U.S. News and World Report and "No. 3 best value public college in the nation" by America's Best Value Colleges.

## Frequently Asked Questions

Students ask many of the following questions. Successful students know the answers to these frequently asked questions. Please read them carefully. Knowing these answers can help you avoid pitfalls during your first semesters on campus. For further information, see this section of the Catalog or contact the Academic Advising Center at (562) 985-4837.

1. How can I tell what requirements I still need to meet before I graduate? Use MyCSULB to check your Degree Progress Report. The requirements you still need to meet are marked in bold in the headings. The top part of the report shows university requirements (e.g., total units, total upper-division units, total CSULB units) and General Education requirements. Then the report lists requirements for your major and for your minor (if any). You can bring a printout of the Degree Progress Report to your major advisor or the Academic Advising Center for assistance.
2. Can my General Education (GE) Courses be used for GE and for my major ("double counted")? A course that is not offered by the department of your major may be counted both toward GE and toward the requirements for your major. Courses in your major department may not be used to satisfy GE requirements except for some specific categories. (Exceptions are listed with the GE requirements in the Schedule of Classes along with a list of the approved GE courses.) Remember, you can only earn unit credit once for a course.
3. How many units will transfer from a California Community College to CSULB? All bachelor's level courses transfer, but only 70 units of transferable course work will apply to your bachelor's degree. Additional transferable course work will receive subject credit only.
4. I transferred from a California Community College. Do I have to take any General Education courses? If you have received General Education certification, you are required to complete an additional nine (9) units of upper-division GE courses. If you have not been certified as having met the transfer pattern, you must meet the CSULB General Education requirements.
5. What does General Education (GE) Certification mean? There are three GE certification processes. Two may be completed at the California Community College (CCC). They are either (1) the California State University (CSU) Transfer Pattern or (2) the Intersegmental General Education Transfer Curriculum (IGETC). The third certification process may be completed at another CSU. In all cases, GE certification means that you have completed your lower-division GE at a CCC or at another CSU. GE certification must be clearly indicated on your official CCC or CSU transcript.
6. Does having an A.A. degree from a California Community College mean I am GE Certified? Usually not. The minimum requirements for most A.A. degrees do not include the lower-division GE pattern required by CSULB. CSULB also requires an additional nine (9) units of upper-division GE courses.
7. What is partial General Education (GE) Certification? Partial Certification means that transfer students have completed subject and unit requirements in some GE categories, but not others.

## Baccalaureate Degrees

CSULB offers 71 Baccalaureate degrees (see a list of degree programs and admission requirements at the beginning of this Catalog). Baccalaureate degree programs are constructed of three interrelated areas: (1) the breadth component, called the General Education Program, which provides the basis for the baccalaureate degree with courses that offer training in general skills, methodologies, and habits of thought; (2) the depth component, or major, which establishes an understanding of the breadth of a body of knowledge, competence in the fundamental skills and methodologies of the discipline, and understanding and skill at an appropriate depth in one or more facets of the discipline; and (3) the elective component that provides the possibility for personal exploration, enhancement, and development to complement the rest of the degree program (and might include a minor and/or a certificate program).

## Requirements for the Baccalaureate Degree

1. Completion of a minimum of $\mathbf{1 2 0}$ units for the Bachelor of Arts. Completion of the minimum number of units which could range from 120 to 140 required by the major program for the Bachelor of Science, Bachelor of Fine Arts, or Bachelor of Music degrees. See the description of the requirements for each major for the specific number of units required. There are restrictions (below) on how many units in certain categories may be counted toward the minimum unit requirement.
2. Completion of at least 40 upper-division units (courses numbered 300-499). No course taken at any community college may count toward fulfillment of these 40 units.
3. Completion of at least 30 units in residence at CSULB of which at least 24 must be upper-division and at least 12 must be in the major. Units earned in Extended Education cannot be counted toward fulfillment of the residence requirement.
4. Completion of the General Education program, described below, including at least 9 units in upperdivision courses completed at CSULB.
5. Completion of the specific course and unit requirements for the academic major, as shown in the alphabetic listing for the major department. If the requirements are changed during students' continuous attendance at CSULB, they have the right to meet either the requirements in effect when they entered the major or the requirements in effect at the time they graduate. All upper-division courses required for a major must be completed within the ten-year period preceding award of the baccalaureate degree. Courses completed prior to this ten-year period can be revalidated by such demonstrations of competence or knowledge of the subject as may be prescribed by the department offering the course.
6. Satisfactory fulfillment of the Graduation Writing Assessment Requirement (GWAR) (See a description of the requirement at the end of this section.)
7. Achievement of a minimum 2.0 ("C") grade-point average in each of the following:
a. The entire college record.
b. All units attempted at CSULB.
c. All courses in the major.
d. All upper-division courses in the major completed at CSULB.
8. Formal approval by the faculty of the university.

The on-line Catalog includes Road Maps showing a suggested sequence of courses to enable students to complete all degree requirements in a timely fashion. Since individual circumstances can vary, students should consult their major advisors for assistance in planning appropriate programs.

## Student Levels

Freshman .................................................. 0.0 to 29.9 units
Sophomore................................................ 30.0 to 59.9 units
Junior......................................................... 60.0 to 89.9 units
Senior $\qquad$ 90.0 or more units

Postbaccalaureate $\qquad$ holding a baccalaureate or equivalent degree

## Restrictions on Units That May Be Counted Toward the Minimum Required for the Baccalaureate

## Activity Courses

Activity courses provide practice in such areas as music, dance, physical education and Sports, Athletics, and Recreation. Except as required by a student's major, students may apply to the degree no more than eight units each of activity course credit in music, dance, or physical education and no more than four units of activity course
credit in SAR, up to a total of no more than 20 units in all areas.

## Transfer Courses

No more than 70 units of courses from a Community College may be counted toward the minimum unit requirement for the baccalaureate. (For more detail, see the section on Transfer Credit in the Academic Information section of this Catalog.)

## Extension Credit

A maximum of 24 semester units of Extension Credit may be accepted toward a baccalaureate degree.

## Open University

The Open University program allows enrollment in regular university credit courses by those people who are not currently admitted to and/or registered at CSULB. Enrollment is on a "space available" basis, subject to the approval of the instructor and the department chair concerned. No more than 24 units of special session course credit earned through Open University or UCES Special Sessions course offerings at CSULB in non-matriculated status may count toward any undergraduate degree requirement. Students are considered in non-matriculated status in terms prior to the term of official admission to the degree granting program and during terms of disqualification from the degree granting program.

## Special Session

There is no limit on UCES Special Sessions course credit, including Winter session, applicable to the degree if taken while in matriculated status in the degree program.

## General Education

General Education is an important component of the baccalaureate degree and of students' personal development. It is the part of the university program which encourages students to develop or improve such basic life skills as self-motivation, independence, creativity, critical thinking, an understanding of values, and a general philosophy by which to make decisions throughout life. Possession of these skills makes possible continued personal growth and the further development of students' creative and adaptive capabilities. It is the basis for lifelong learning, and it can increase the student's ability to be selfdirecting.

At California State University, Long Beach, courses approved for General Education credit provide:

- Information: the raw material for thinking, analysis, reflection, and discourse;
- Basic Skills: the ability to analyze ideas and data, to relate these to other materials, to develop arguments both logical and cogent, to reach conclusions, and to present the results of these processes with clarity and style;
- Methods of inquiry: direction and practice in methodologies of the several disciplines;
- Qualities of Mind: a respect for data and unpleasant facts; tolerance, commitment, a taste for learning; an appreciation of the arts; creativity, perpetual curiosity, and a sensitivity to ethical considerations.

The General Education Learning Objectives are as follows:

1. Communication

Students will be able to communicate their ideas clearly to others, in both oral and written forms.
2. Critical Thinking

Students will demonstrate the abilities of critical thinkers, including abilities to synthesize, draw connections and make reasonable conclusions based on the analysis of large amounts of source material, with a willingness to analyze their own assumptions and biases objectively in this process.
3. Quantitative Reasoning

Students will demonstrate quantitative understanding of data presented in numerical, graphical, or geometric formats and will be able to use quantitative methods to solve real problems.
4. Information Literacy

Students will be critical users of the Internet and print information resources and will demonstrate the abilities to use and to apply what they learn.
5. Personal and Civic Responsibility

Students will demonstrate an understanding of ethics and civic responsibility in local, national, and global society; understand their own connections to the global society; and be able to use this information to make informed decisions.
6. Interpersonal Skills

Students will be able to work with others effectively in diverse settings and will be skilled in perspective taking (putting oneself in the audience's shoes), and in managing conflict constructively.
7. Cultural Awareness

Students will display cultural awareness by demonstrating an appreciation of artistic and cultural productions; an understanding of the world, the people in it, and the structures people create; and they will be able to compare and contrast their own cultural background to other communities.
8. Self-Understanding

Students will display a sense of self (in a personal as well as an historical context) and an ability to make successful personal choices, including an initiative to choose an educational path to meet their personal goals.
9. Interdisciplinary Methods of Inquiry

Students will demonstrate an ability to examine issues from the viewpoints of different disciplines, recognizing different ways in which people approach knowledge, different ways of asking questions, and different ways of interpreting evidence.
10. Lifelong Learning

Students will demonstrate the traits of open-mindedness, a willingness to take risk, self-initiative, and curiosity as well as a desire to continue questioning and learning beyond their major discipline.
The General Education Program at CSULB includes both the breadth requirement defined by policy of the Board of Trustees of The California State University campus and the graduation requirements in United States History and in American Institutions (Sections 40405 and 40404, Title

5, California Code of Regulations). Within the program, a minimum of 9 semester units must be upper-division general education courses taken at the campus conferring the degree. Credit toward the remainder of the program may be transferred from another institution. A participating, regionally-accredited institution may certify completion of an approved pattern of lower-division course units that meets all breadth categories.

## General Education Requirements

To receive a baccalaureate degree from California State University, Long Beach, students must complete at least 51 semester units of General Education courses distributed as specified below. Only courses specifically approved for General Education and so listed in the Schedule of Classes for the semester in which the student takes the course may be used to fulfill General Education requirements. At least three units of the 51 General Education units must be instruction which focuses on global issues or world societies and cultures (Global Issues Courses). At least three units of the 51 General Education units must be instruction which focuses on instructive examples of human diversity (Human Diversity Courses). At least nine of the 51 General Education units must be upper-division units taken at CSULB and after achieving upper-division standing (completion of 60 semester units). The 51 units of General Education course work include three units of work in U.S. History and three units in U.S. Constitution and American Ideals, required by Section 40404, Title 5, California Code of Regulations. (See Category D. below). Title 5 provides that each student shall demonstrate competence by completing a course in these fields or by passing a comprehensive examination in them. These examinations are provided by the Departments of History and Political Science, respectively.

No course in the student's major department may be used to satisfy GE requirements with these exceptions: all courses in Category A, Category B.1.a for life science majors, Category B. 2 for mathematics majors, Category C. 1 and C. 3 for art and music majors, Category D.1.a for history majors, Category D.1.b for political science majors, all interdisciplinary courses (I), and human diversity courses (H, identified with " $\downarrow$ " in the Schedule of Classes) for all majors. A cross-categorized Interdisciplinary Course may be counted (at the student's option) in any one of the approved categories, but not in more than one.

Engineering and Technology students may have special GE requirements.

## First Year: Foundation

The first year at CSULB is designed to devote special attention to the development and improvement of fundamental academic skills that are critical to student success in college. Every CSULB student will be expected to demonstrate mastery of key academic skills early in their course of study, ideally within the first year. Among the skills most central to success are communication in English, both written and oral, mathematical concepts and quantitative reasoning, and analytical and critical thinking. Students also need a solid foundation in skills for learning, including the ability to read for information, information retrieval skills, the use of the library, and basic computer skills. In
addition, all first-year students will receive an introduction to the University. Finally, the University is committed to fostering the development of communities of learners, and it will provide to all incoming students opportunities for the formation of learning communities.

The Foundation curriculum consists of twelve units of general education courses that meet the distribution requirements in Categories A and B 2 , and one unit of University 100. The following courses make up the Foundation:

- University 100 (1 unit), "The University." This course is a graduation requirement for students entering as lowerdivision students. It is coordinated pedagogically with the skills and content of the first-year curriculum. It introduces students to the history of universities (including the history, mission, and character of CSULB) and current issues in higher education. It introduces students to the use of our academic research library and also introduces them to the skills essential for success in an academic environment. It does not count toward the 51 units required in General Education.
- One 3-unit course in written composition in English.
- One 3-unit course in oral communications.
- One 3-unit course in mathematical concepts and quantitative reasoning.
- One 3-unit course in critical thinking.

The courses listed above must all be completed with a grade of at least "C". Where appropriate exams exist, Foundation requirements may be met by advanced placement.

The 13-unit Foundation curriculum must be completed by the time a student has completed 36 units of baccalaureatelevel work at CSULB, except that lower-division transfer students have at least one semester in residence to complete the requirements.

Courses in the Foundation curriculum are numbered from 100 to 199. All other General Education courses have pre- or co-requisites from the Foundation curriculum, and all General Education courses numbered 200 or higher have the entire Foundation curriculum as prerequisites. General Education courses numbered between 100 and 199 may appropriately be taken at the same time as courses in the Foundation curriculum.

## Explorations

After an early focus on fundamental learning and academic skills, students will have an opportunity to explore human knowledge in many disciplines. The Explorations stage encompasses all areas outside the Foundation curriculum, except the final nine units of General Education, described under "Capstone."

Although the primary purpose of Explorations is the development of breadth of knowledge, all courses offer opportunities for continued development of foundational skills. Reading, writing, oral discussion and presentation, problem solving and/or quantitative reasoning, and criticallyand analytically-based research are central to the learning of content.

In addition, as students progress though the Explorations, they are expected to develop additional
skills and attributes, including ethical reasoning, analytical reading, creativity, respect for difference, awareness of other cultures, questioning of stereotypes, the values of citizenship, negotiating skills, and other attributes of use in a diverse society.

## Capstone

The final nine General Education units form the Capstone. All students, including transfer students who have completed a certified lower-division General Education program, must complete 9 units of Capstone courses. Students must take these courses at CSULB. The purpose of the Capstone is to bring the strands of the General Education experience into focus, to reinforce knowledge and skills acquired from many areas, and to incorporate depth in the form of more sophisticated tools and analysis, if not necessarily in terms of content knowledge.

Capstone General Education courses are at the upperdivision level. Prerequisites for these courses include upperdivision standing and the entire Foundation curriculum, along with one or more prerequisites from the Explorations stage. All Capstone courses are designed to develop advanced college skills, including synthesis and application of knowledge, analysis, critique, and research.

Capstone classes are classified as Interdisciplinary (identified with the letter "I" in the Schedule of Classes), Advanced Skills (identified with the letter "A" in the Schedule of Classes), Service Learning (identified with the letter "S" in the Schedule of Classes), or Linked (identified with the letter "L" in the Schedule of Classes). Students are permitted to count no more than one Advanced Skills class and one Service Learning class toward the 9-unit Capstone requirement.

## Global Issues

Students must complete at least three units of course work devoted to global issues or world societies and cultures (designated with a W or " $\bullet$ " in the Schedule of Classes). This may be in any category. (For students under the 1998 or earlier catalog, the Global Issues course must be in Category D.) Students who transfer with all lower-division requirements certified are exempt from this requirement.

## Human Diversity Requirement

At least three units of the General Education program must be course work that focuses on instructive examples of human diversity in the United States. The course may be in any category. Human Diversity courses are identified with a " ${ }^{\text {.." }}$

## General Education Distribution Requirement

General Education units must be distributed as follows:

## Category A

Communication in the English Language and Critical Thinking - 9 units to include:

1. One approved course in written English;
2. One approved course in oral communication or a combination of oral and written communication, to include an understanding of the process of communication and experience in communication;
3. One approved course in critical thinking, designed to develop the ability to reason clearly and logically and to analyze the thinking of others.

## Category B

Physical Universe - 12 units to include:

1. At least six units of inquiry into the physical universe and its life forms to include one approved course in the life sciences and one approved course in the physical sciences; both must involve laboratory experience;
2. At least three units of study in mathematical concepts and quantitative reasoning; approved courses foster an understanding of mathematical concepts rather than merely providing instruction in basic computational skills;
3. Another three units as necessary, selected from approved courses, to achieve a minimum of 12 units.

## Category C

Humanities and the Arts - 12 units to include:

1. At least three units from approved fine arts courses;
2. At least six units from approved courses to include courses in at least two of the following areas:
a. literature
b. philosophy, and
c. foreign languages.
3. Another three units as necessary, selected from approved courses to achieve a minimum of 12 units.

## Category D

Social and Behavioral Sciences and History - 15 units to include:

1. Citizenship:
a. Three units selected from courses in U.S. History;
b. Three units selected from courses in U.S. Constitution and Ideals, including state and local government.
2. Social and Behavioral Sciences

At least 9 units from the approved courses in at least two disciplines.

## Category E

Self-Integration - 3 units:
At least three units selected from approved courses which facilitate understanding of the human being as an integrated physiological, psychological, and social organism.

## General Education Certification for Transfer Students

General education certification is available from California community colleges and CSU campuses. Fully certified students have completed all of their lower-division GE courses at either institution. CSULB also accepts partial certification in one or more GE categories. Students with GE certification must complete 9 units of upper-division general education courses at CSULB, and must satisfy the US History requirement (an approved three unit course in either early or recent US History,) and the US Constitutions requirement (an approved three unit course in national government, and California state and local government.)

## Majors

Choosing a major is one of the most important, and sometimes most difficult, academic decision students will make during their college careers. There may be many possible choices of major that would provide preparation for a given career. The section on Degrees, Options, Minors, and Certificates earlier in this Catalog shows the many choices available and where to find information on each. Many departments have additional information posted on their web pages, accessible from the university's home page. Students are encouraged to interview faculty in possible majors and to seek the help of student services professionals to assist them in making this important decision.

A choice of major is not a final decision. There is no limit to the number of times a student may change majors.

## Declaration of a Major

To help insure timely completion of graduation requirements, students who have a total of 60 units completed must have declared a major before they may register for the next term. Upper-division transfer students are required to declare their intended major on their application for admission. (PS 06-04)

## Change of Major or Other Objective

Undergraduate students declaring a major for the first time or changing from one degree program or degree option program to another must submit an approved Change of Major/Declaration form to the Office of Enrollment Services. Some departments may submit these forms electronically.

Students who are candidates for a certificate or credential program must also file a Request to Graduate. (Please see Graduation section of the Catalog.)

The evaluation of credits transferred to the University is based in part upon the objective indicated on the application for admission. Students should be aware, therefore, that under some circumstances transfer courses accepted for one purpose may not be acceptable for other purposes. Graduation checks needing to be redone may carry a special fee.

## Double Major

Students may complete the requirements for two baccalaureate programs concurrently, but only one degree will be conferred and only one diploma issued. Therefore, one baccalaureate program must be designated as the primary major. The degree will then take on the designation, i.e., Bachelor of Arts or Bachelor of Science, associated with that primary major. The fact that the requirements of two majors have been completed will be noted on both the diploma and the transcript. A course, or courses, may be used to satisfy the individual requirements of both majors, without limit, as long as the required pattern of course work is completed for each major.

## Minors

A minor is a structured selection of courses by which a student can enrich his or her academic preparation through concentrated study of a discipline that is different from, but may be related to, the student's declared major. A minor is a means to augment or complement the major by
broadening the student's academic experience or serving as preparation for a specific career. A minor is not required for the baccalaureate; however, students may elect to complete a minor and have that fact noted on their records. Students should consult with an advisor in their major department for recommendations on suitable minor fields of study.

A minor consists of a minimum of 18 units, as specified by the department or program, at least nine of which must be upper-division. The minor may be in a single subject or interdisciplinary. Students may not declare or receive a minor in the same subject as the major, and the major and minor may not have the same title. The description of each minor shall have a statement listing all majors, if any, that may not be combined with that particular minor. The minimum overall GPA in courses toward the minor is 2.0. A minimum of six units of course work toward the minor must be taken at CSULB.

Students should refer to the requirements of the department and college of their major, to see whether a minor is required for that major. Even if a minor is not required, students may elect to complete one or more minors from those available and have that so noted on their transcripts. Unlike certificates, minors are awarded only as part of a baccalaureate degree. Students may not finish a minor after they have graduated, except in conjunction with a second baccalaureate degree.

## Certificate Programs



Long Beach offers 40 baccalaureate-level programs leading to the award of a Certificate. Certificate programs differ from baccalaureate majors and minors in their emphasis on practical and applied uses of knowledge in a specific area of human enterprise. Certificates may only be earned concurrently with or following the award of the baccalaureate degree. Certificate programs must require at least 18 units of course work, of which at least 15 units must be at the upper-division level. Many certificates require 24 to 27 units. Courses taken to fulfill the requirements for the baccalaureate may also be applied to certificate requirements. A maximum of two 500-level courses, taken by eligible students in their senior year, may be applied to a baccalaureate certificate program. Extension and/or transfer credit may comprise no more than one-fourth of the course work used to meet baccalaureate certificate requirements. A grade-point average of at least 2.0 must be maintained in the certificate program's course work.

Students wishing to pursue a baccalaureate certificate program should consult the relevant department as early as possible to receive early advisement on the program. Students wishing to receive a certificate must so indicate on the Request to Graduate form filed with the Office of Enrollment Services.

## Additional Baccalaureate Degrees

A graduated student who wishes to pursue an additional baccalaureate degree and maintain undergraduate status may do so by completing a minimum of 30 units in residence after graduation, of which 24 units must be upper-division courses and 12 units must be in the major. (See the Catalog section on admissions for restrictions on the admission of candidates for a second baccalaureate degree.)

A senior, with advance approval of the Academic Appeals Committee, may earn a maximum of twelve units toward the additional degree while in residence for the first degree. Any courses to be applied to the additional degree must be specified and taken in addition to those needed to satisfy the requirements of the first degree.

Students applying for and accepted to a second baccalaureate degree program who have received their first baccalaureate degree or equivalent from an institution outside of the U.S. will be required to complete any deficiencies in the General Education pattern and will be evaluated for General Education on the same basis as undergraduates.

## Graduation Writing Assessment Requirement (GWAR)

In order to obtain a degree or certificate from CSULB, all students must demonstrate upper-division competence in academic writing in English. For the purposes of fulfilling the Graduate Writing Assessment Requirement (GWAR), students are responsible for developing the skills necessary to demonstrate this level of writing competence (which should include analysis and exemplification with one or more of the following: synthesis, critique, inquiry, and argument).

All undergraduate students must fulfill the GWAR by one of the following:

1. Passing the Writing Proficiency Exam (WPE);
2. Passing another approved CSULB assessment of writing competence;
3. Having already passed an assessment of writing competence GWAR while matriculated at another CSU campus.
Assessments of writing competence from non-CSU campuses will be evaluated by the GWAR Coordinator as a fulfillment of the GWAR on an articulation basis if possible, or on a case-by-case basis if necessary.

Students needing to fulfill the GWAR must take the WPE at least once. Students who do not pass the WPE may take it a second time or may attempt to fulfill the GWAR by another approved assessment of writing competence.

All continuing CSULB and transfer students who must fulfill the GWAR must register for and take the WPE by the end of the semester in which they earn 65 units. Upper-division transfer students who enter CSULB with 65 or more units must take the WPE within their first semester of residency at CSULB. (PS 04-06)

To register for the WPE, students must pick up an application at the Office of Testing and Evaluation Services, BH-216, (562) 985-4007, www.csulb.edu/centers/tests. Students must pay a fee each time they take the WPE to cover the costs of test administration and scoring.

Students may attend free three-hour workshops scheduled one to two weeks prior to each WPE date indicated in the Schedule of Classes and may obtain information about these workshops, the WPE workbook, and related services from the Testing Office.

Students who fail any approved assessment of writing competence two times must meet with a GWAR faculty advisor located in the Learning Assistance Center in the Horn Center, Room 104 (562) 985-5350. Such students will be required to present evidence that they have followed the advisor's recommendations regarding course work, tutoring, or other services connected to developing the requisite skills before they will be allowed to register for a third attempt.

## The GWAR, Registration Holds, and Application to Graduate

All undergraduate students who have not attempted the WPE by the time they earn 65 units, as specified earlier, will have registration holds placed on their records. Students must sign up for and take the WPE to release registration holds. Students with compelling reasons can file requests at the Office of Testing and Evaluation Services for deferment of these registration holds. In certain circumstances, students, with help from their faculty or staff advisors, may submit an appeal or contract to release a registration hold temporarily. All students must attempt to fulfill the GWAR before filing a graduation application.

## Graduation

## Dates and Requests to Graduate

The university awards degrees at the end of each of four terms in a year: January (work completed at the end of Winter session); May or June (end of the Spring semester); August (end of Summer Session); and December (end of the Fall semester.)

Seniors and graduate students who expect to receive degrees or Certificates at the end of any semester, winter or summer session must complete the Request to Graduate form and/or Certificate form well in advance. The appropriate request for Spring or Summer candidates must be filed by the preceding October 15; and for Fall or Winter candidates, by the preceding March 1, at the Office of Enrollment Services. The names of Candidates who file within these deadlines will appear in the Commencement Program published each Spring. Publication of names in the program does not constitute graduation from the university. Credential students should apply in the Credential Processing Office, located in the Graduate School of Education, or the Office of Enrollment Services by February 1 for December completion and by October 1 for Spring and Summer sessions.

Requests to graduate submitted later than the deadline will be processed after those submitted on time. The degree will be granted once all requirements have been completed, but the student's name will not be printed in the Commencement Program.

## Completion of Records and Requirements

Prior to receiving a degree, students are responsible for the following:

- Insuring that the university has received official transcripts of all work completed at other institutions. If graduation depends on any classes taken outside CSULB during the final semester or session, the transcript must be submitted by the announced date, approximately one month after the official graduation date.
- Completing all requirements for the degree, including the minimum number of units. Units will not be counted toward the minimum if they are above the acceptable total in certain categories, as listed in the degree requirements, or if they are a repetition of a course for which credit has already been counted. Any substitutions or waivers of course requirements must be submitted by the advisor.
- Completing all "in progress" and "Incomplete" courses that are to be completed. No additional work may be completed after the degree is awarded. No grade can be changed after the degree is awarded, except for a change resulting from a grade appeal. Any Incomplete remaining on the record as of the graduation date will be counted as if it were an "F," with units attempted but no grade points earned, unless the instructor has specified on the Incomplete form that some other grade be recorded.


## Degree Clearing

Final review of records begins three weeks after final exams in the student's last term, and can take up to three months. If all degree requirements are complete, the degree and any honors are added to the transcript. The transcript is the official verification of the degree.

It is the student's responsibility to submit records of all changes in the record no later than the last day of the final semester or session. Such materials include transcripts from other institutions and amendments, substitutions, waiver, and grade changes.

## Graduation with Honors

The following grade-point average criteria are used to identify undergraduate students eligible for the honors specified:

1. 3.95 to 4.00 graduated Summa Cum Laude
2. 3.80 through 3.94 graduated Magna Cum Laude
3. 3.50 through 3.79 graduated Cum Laude

An undergraduate student may be considered eligible for honors at graduation provided that a minimum of 45 units are earned at California State University, Long Beach. For the first baccalaureate degree, the GPA will be determined from units earned at CSULB plus transferred units. For the second baccalaureate degree, the GPA will be determined only by courses taken after the first degree was awarded.

With the approval of the Dean of the College, departments may elect to award departmental honors to their graduates based on GPA and/or other criteria determined by the department. The number of honors awarded by a department will be limited to three students or five percent of graduates, whichever is larger.

University honors will be noted on the diploma and transcript. Departmental honors will be noted on the transcript only. (PS 98-11)

## Honor Lists

Undergraduate students exhibiting outstanding scholastic achievement are honored by being included on the President's or Dean's List. A certificate will be issued for each semester in which the student receives this honor. (PS 98-11)

## President's List

Students will be placed on the President's List to honor them for academic achievement each semester in which they complete 12 or more graded course units with a semester GPA of 3.75-4.0. Students earning fewer than 12 graded course units per semester will be placed on the President's List in the Spring semester of the academic year in which they accumulate 12 or more graded course units with an academic year GPA of 3.75-4.0. (PS 98-11

## Deans' List

Students will be placed on the Deans' List to honor them for academic achievement each semester in which they complete 12 or more graded course units with a semester GPA of 3.5-3.74. Students earning fewer than 12 graded course units per semester will be placed on the Deans' List in the Spring semester of the academic year in which they accumulate 12 or more graded course units with an academic year GPA of 3.5-3.74. (PS 98-11)

## Honor Societies

- Phi Beta Kappa - Founded at the College of William and Mary in 1776, it is the oldest and most prestigious honor society for students of the liberal arts and sciences. A chapter was established at California State University, Long Beach in 1977.
Graduating seniors are elected to membership in Phi Beta Kappa on the basis of extraordinary scholarly performance at this University, after study of their records by faculty members who are themselves members of Phi Beta Kappa. No action on the part of the student is necessary to initiate consideration. Inquiries should be directed to the President of the University chapter of Phi Beta Kappa, Dr. Harold Schefski, Department of Romance, German, and Russian Languages and Literatures.
Two additional societies which may elect students from all academic areas are:
- Mortar Board - Founded in 1918 as an honor society focusing on scholarship, leadership, and service. Mortar Board was the first national honor society founded by and for college senior women, and the membership expanded to include men in 1975. The California State University, Long Beach Cap and Gown Chapter was founded in 1972, and grew out of an honor club established here by seven women in 1963. The Cap and Gown Chapter is one of over 200 Mortar Board Chapters, with a total national membership of over 250,000 dedicated, active scholars.
Mortar Board's focus is on collaboration and balancing positive ideology with practical leadership building experiences. Mortar Board holds that both community service and dedication to academic excellence must remain constant in order to provide a full college career.
Membership is extended to service-oriented CSULB seniors who maintain a minimum 3.0 cumulative GPA.
- Phi Kappa Phi - Founded in 1897 at the University of Maine, it is the oldest and largest national honor society which recognizes and encourages superior scholarship in all academic disciplines. Chapter 86 was established at California State University, Long Beach, in 1963.
Admission to Phi Kappa Phi is by invitation only and requires nomination and approval by the chapter and national society. Membership for juniors, seniors, and graduate students is based on integrity of character, one year residence in the University, and outstanding scholarship. Inquiries should be directed to the President of the University chapter of Phi Kappa Phi, Dr. C. J. Walter, c/o College of Business Administration.
Other societies may limit membership to particular academic areas. Among these organizations at California State University, Long Beach are the following:
- Beta Alpha Psi (Accounting) - National scholastic fraternity to give recognition to excellence in the field of accounting.
- Beta Gamma Sigma (Business Administration) - National honorary business society to recognize superior academic performance.
- Chi Epsilon (Civil Engineering) — National honor society open to Civil Engineering majors with a 2.9 GPA.
- Chi Sigma lota (Counseling) - International honor society open to graduate students with a GPA of 3.5, scholars, and practitioners in the counseling profession.
- Eta Kappa Nu (Electrical Engineering) - National honor society furthering area interests and promoting scholarship. GPA requirements for seniors 2.8, for juniors 3.0.
- Kappa Delta Pi (National honor society for teachers) - encourages high professional, intellectual, and personal standards. Recognizes outstanding contributions to education.
- Kappa Tau Alpha - National honor society that recognizes academic excellence and promotes scholarship in journalism and mass communication.
- Omicron Nu (Family and Consumer Sciences) - National honor society recognizing superior scholarship and promoting leadership and research in the field of Family and Consumer Sciences.
- Phi Alpha (Social Work) — National honor society to improve the goals of social work on campus. GPA requirement 3.0.
- Phi Alpha Theta (History) — National honor society in history, founded to promote the study of history through the encouragement of research, good teaching, publication, and the exchange of learning and ideas among historians.
- Phi Beta Delta (International Education) - National society, founded at CSULB, recognizes students from all disciplines with high GPAs and extensive involvement in international education or international studies.
- Phi Delta Gamma (Scholarship) - National honor society which fosters academic achievement and professional preparation.
- Phi Delta Kappa (Education) - National organization which promotes service, research, and leadership in education. Members include both students and faculty.
- Phi Epsilon Kappa (Physical Education) - National society for recognition in sports and physical education. 3.0 GPA requirement and faculty recommendation.
- Phi Mu Alpha-Sinfonia (Music) — National organization for students in music. Promotes music in America, especially contemporary American music.
- Phi Alpha Alpha (Public Administration) - National society to encourage scholarship among students of public administration.
- Phi Sigma Tau (Philosophy) — National honor society for students with a strong undergraduate concentration in philosophy.
- Pi Kappa Lambda (Music) - National honor society for scholastic achievement in music.
- Pi Lambda Theta (Education) - National organization for undergraduate and graduate students. Purpose is to maintain high standards of scholarship and preparation for teaching.
- Pi Mu Epsilon (Mathematics) — National honor society recognizing distinction in mathematics.
- Pi Sigma Alpha (Political Science) — National honor society for political scientists. Open by invitation to upper-division and graduate students with a 3.0 GPA.
- Pi Tau Sigma (Mechanical Engineering) - National honorary fraternity encouraging and recognizing outstanding scholastic achievement of students in the field.
- Psi Chi (Psychology) — National honor society recognizing distinction in Psychology. Sponsors research and other participation in psychology.
- Sigma Alpha lota (Music) - National organization for women in music. Aims to further the development of music in America through performance, study, and participation in both campus and community projects.
- Sigma Theta Tau (Nursing) - International honor society recognizing superior scholastic achievement, leadership, and community service in nursing.


## CSULB Alumni Association

The CSULB Alumni Association is the link between the University and its more than 165,000 alumni. The Association develops social, educational and recreational programs that bring alumni back to campus.

All former students who attended at least one semester at CSULB are considered alumni and are eligible to join the Alumni Association. Graduates and credential recipients can join by completing an enrollment card and paying a one-time $\$ 25.00$ fee; non-graduates, including employees and friends of CSULB, may join as associate members for a yearly fee.

Alumni volunteers assist on Alumni Association committees helping to plan Homecoming festivities, commencement, hospitality center, the summer Concerts in the Grove series, and other events.

Members of the Alumni Association receive a benefit package that includes library privileges at all CSU institutions (there are restrictions on computer usage), on-campus assistance at the Learning Assistance Center at no extra charge, the Career Development Center for a yearly fee, an Association credit card, a hotel/motel discount program, and access to membership in health insurance programs. Also available to members are the semi-annual Alumni Calendar of Special Events; the CSULB Review publication; University Student Union privileges; and discounts on some CSULB theater performances, athletics events and local attractions.

For more information on the CSULB Alumni Association services call the Alumni Relations Office at (562) 985-5252.

## The Annual Fund

Alumni actively and generously support the University through the Annual Fund. Over 55,000 alumni, parents, and friends are contacted annually to support University activities. The majority of donations are undesignated and are used to meet the most critical needs of the University. Some donors prefer to designate their gifts to their departments or colleges.

## Parents' Fund

The Parents' Fund was established to give parents the opportunity to support the University. Parents of currently enrolled and graduated students are contacted yearly by the Annual Fund. The willingness of parents to pledge financial support to the University is a confirmation that CSULB provides an excellent educational environment for the students it serves.

## Senior Gift Campaign

Every graduating senior is contacted near graduation to initiate a pledge in support of the campus. Seniors are asked to donate $\$ 100$ to purchase a brick to be permanently placed in the Alumni Brick Plaza. Gifts of $\$ 99$ or less are designated to the Annual Fund to be used for essential campus needs. Seniors have proven to be generous and loyal donors to the University.

# GRADUATE DEGREES AND OTHER POST BACCALAUREATE STUDIES 

## Associate Vice President for Graduate and Undergraduate Programs <br> Cecile Lindsay

Associate Deans for Graduate Studies
Holly Harbinger (Arts)
Steve Turley (Education)
Sandy Cynar (Engineering)
Michael Lacourse (Health and Human Services)
Mark Wiley (Liberal Arts)
Henry Fung (Natural Sciences and Mathematics)
Director of MBA Program
H. Michael Chung

## Graduate Studies

Graduate study is primarily designed to inspire independence of mind and originality in the quest for knowledge, truth, and useful application. Candidates for a master's degree are required to demonstrate mastery in their chosen field of study either through independent research culminating in an acceptable thesis and/or through successfully passing a final comprehensive examination.

Graduate curricula are designed to provide each student with advanced study in a discipline. All courses listed in a master's degree program, including those outside the major field, must be graduate or upper-division courses approved by the student's graduate committee and department graduate advisor.

Proficiency of a student in any and all parts of a curriculum is ascertained by the faculty of the University. A favorable vote of the faculty is required for a student to receive a master's degree.

A student who plans to become a candidate for a master's degree must hold a bachelor's degree from an accredited institution or have completed equivalent academic preparation at a foreign university as determined by the appropriate campus authority. The student must have completed undergraduate course work substantially equivalent to that required at California State University, Long Beach in the discipline of intended graduate study, or must be prepared to undertake additional work to make up any deficiency. Most graduate degree programs are based upon preparation in the discipline at the undergraduate level. Undergraduate preparation is considered adequate if a candidate has met the upper-division requirements of this University for a bachelor's degree in the subject matter area of the master's degree program. Refer to specific departments for detailed requirements of each degree program.

The following graduate degrees are offered:


Anthropology
Art
Asian Studies
Communicative Disorders
Dance
conomics
Education
Family and Consumer Sciences
French
Geography
Global Logistics
History
Kinesiology
Linguistics
Music
Studies

Psychology
Religious Studies

Speech Communication
Theatre Arts
Master of Business Administration
Master of Fine Arts Degree in:
Art
Creative Writing
Dance
Theatre Arts
Master of Music
Master of Physical Therapy
Master of Public Administration
Master of Public Health
Master of Social Work
Master of Science in Nursing/Master of Public

Master of Science Degree in:
Aerospace Engineering
Biochemistry
Biology
Chemistry
Civi Engineering
Counseling
Criminal Justice

Electrical Engineering
Emergency Services Administration
Engineering
Engineering Management
Geology
Gerontology
Health Science
Health Care Administration
Interdisciplinary Studies
Kinesiology
Mathematics
Mechanical Engineering
Microbiology
Nursing
Nursing/Health Care Administration
Nutritional Science
Physics
Psychology
Recreation Administration
Science Education
Special Education

## Civil Engineer Degree

## Ed.D. in Educational Administration and Leadership

(awarded jointly with University of California, Irvine)

## Ph.D. in Engineering and Industrial Applied Mathematics

(awarded jointly with Claremont Graduate School)

## Certificate Programs and Graduate Study

Students, whether graduates of CSULB or of another accredited institution, may complete the requirements for and be awarded certificates while in graduate standing. Admission requires a bachelor's degree from an accredited institution, at least a 2.5 grade-point average in the most recently completed 60 units of course work, and fulfillment of the Graduation Writing Assessment Requirement (GWAR). Certificate programs are of two types: baccalaureate certificates which may be taken concurrently with or following the award of the baccalaureate degree, and graduate certificates which require post-baccalaureate standing. The baccalaureate certificates are listed in the "Undergraduate Programs" section of this catalog. The graduate certificates are listed below, with the department responsible for each certificate indicated in parentheses.

Graduate certificate programs require at least 18 units of course work, of which at least 12 units must be at the 500 or 600 level. Courses taken to fulfill the requirements for the master's degree may also be applied to certificate requirements, if the certificate program permits, but such overlap may not exceed 15 units. Courses in directed research, directed reading, internship, and independent study may comprise no more than 3 units of a graduate certificate program. Thesis and student teaching may not be used on the program. Extension and/or transfer credit may comprise no more than one-sixth of the course work used to meet graduate certificate requirements. A grade-point average of at least 3.0 must be maintained in the graduate certificate program's course work. All courses used to complete the requirements of a graduate certificate must
be completed within a five-year period from the date of the initial course work.

If you wish to pursue a graduate certificate program, you should review the course requirements given in the department course listings of this catalog. You should notify the relevant department of your intention to pursue a certificate program as early as possible so as to receive early advisement on the program.

## Certificates

Career Guidance Specialist (Educational Psychology, Administration, and Counseling)
Community College (Educational Psychology, Administration, and Counseling)
Leisure Counseling (Recreation and Leisure Studies)
Museum Studies (Art)
Nurse Practitioner (Nursing)
Physical Therapy Intern (Physical Therapy)
Public Management Analyst (Public Policy and Administration)
Public Sector Employer-Employee Relations and Personnel Management (Public Policy and Administration)
Public Sector Financial Management (Public Policy and Administration)
Systems Engineering (College of Engineering)
Teaching English as a Second Language (Linguistics)
Transportation Policy and Planning (Public Policy and Administration)
Urban Executive Management (Public Policy and Administration)
Waste Engineering and Management (Civil Engineering)

## Post-Baccalaureate Studies

Students with a baccalaureate degree who wish to continue their education for personal enrichment or to meet professional needs may do so at CSULB either as a post-baccalaureate student or as a graduate student. A post-baccalaureate student is one who has not declared a master's degree or a credential as an objective but who is nevertheless attending class and participating in academic work at the University beyond the baccalaureate degree. Post-baccalaureate students may only enroll through University College and Extension Services. A graduate student is one who has requested and received formal admission to a specific field of study that will lead to a graduate degree in one of the many disciplines available at CSULB.

Candidates for public school service credentials at the University are advised to familiarize themselves with the requirements for these programs. Descriptions of credential programs appear in the Credential Programs section of this Catalog and in the separate departmental sections of this catalog.

## Graduate and Post-Baccalaureate Admission Requirements

Graduate and credential applicants may apply with the objective of completing a degree, a credential, or a certificate program. Depending on the stated objective, CSULB will consider an application for admission in one of the three categories:

## Graduate Standing - Conditionally Classified

To qualify for admission in conditionally classified graduate standing, a student must:

1. Hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation in a foreign university as determined by an appropriate campus authority;
2. Have attained a grade-point average of at least $2.5(\mathrm{~A}=$ 4.0) in the last 60 semester ( 90 quarter) units attempted;
3. Have been in good standing at the last college attended; and
4. Be accepted into a graduate degree curriculum on a conditional basis, subject to the requirement that any deficiencies must be remedied by additional preparation.

## Graduate Standing - Classified

A student who meets the minimum requirements for admission as a graduate student, as specified in the preceding paragraph, may be admitted as a fully classified graduate student pursuing an authorized degree curriculum if the appropriate program authorities determine that he or she satisfactorily meets the professional, personal, scholastic, or other standards for admission to the graduate degree curriculum, including qualifying examinations that the appropriate program authorities may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to proceed in such curricula.

## Post-Baccalaureate Standing — Classified

In this status a student is eligible to enroll in a credential or certificate program, provided that such additional professional, personal, scholastic, and other standards, including qualifying examinations, as may be prescribed for the particular credential or certificate program by the appropriate campus authority, are satisfied.

## Admission to the University

In order to be admitted to CSULB as either a post-baccalaureate classified student or as a graduate student, the applicant must meet the following requirements:

1. Have earned a baccalaureate degree from an accredited university or college;
2. Have been in good standing at the last institution attended;
3. Have at least a 2.5 grade-point average in the last 60 semester (or 90 quarter) units attempted, independent of when the baccalaureate was granted. The entire term in which the 60 semester (or 90 quarter) units began will be used in this calculation. Lower-division courses or courses taken in extension (except in adjunct enrollment at CSULB in the upper-division level), after obtaining the bachelor's degree, will be excluded from the calculation.
Students wishing to enroll in the University must follow the instructions supplied by the Office of Enrollment Services in the Admissions section of this Catalog.

NOTE: Graduating undergraduate CSULB students do not automatically continue as graduate students. They must apply under the same conditions as non-CSULB students.

Once applications are received, they will be evaluated at appropriate offices. To be admitted to the University, a student must also be admitted to a specific program. The University does not admit post-baccalaureate students who do not have a degree, certificate, or credential objective. Provisional admission is granted to applicants anticipating their baccalaureate degree prior to registration but subsequent to filing the application. Proof of the baccalaureate is mandatory (final transcript must be on file) prior to the student's second semester of attendance. If it is not, provisionally admitted students will be prohibited from future enrollment until such proof is on file.

The student must request all institutions of higher learning attended (except for CSULB) to send an official copy of transcripts directly to the Office of Enrollment Services and to the department advisor of graduate studies. Transcripts presented to the Office of Enrollment Services by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to a graduate degree program.

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who possess a bachelor's degree from a postsecondary institution where English is not the principal language of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL), 213 on the computer-based version of the TOEFL or 80 on the Internet-based (iBT). Some programs may require a higher score.

## Admission to a Department as a Graduate Student

In order to pursue a credential or master's degree, students must be accepted by the department or college offering the degree program. In some instances (see specific department listing) this process may require making a separate application to the department or college. Following review the department or college will determine whether or not a student meets its requirements for admission to its degree program. Departments or colleges that receive more applications from qualified students than the number of graduate spaces they have available will admit students in priority order based on the strength of candidates' qualifications.

On the other hand, if space is available, a student who is admissible to the University but who does not meet program requirements for admission may nevertheless be accepted as a conditionally classified graduate student by the department or college offering the program, subject to the proviso that all remaining admission requirements of the program must then be fulfilled after enrollment. Only the Associate Vice President for Graduate and Undergraduate Programs or his/her designee is authorized to grant conditional admission to a student who does not meet University requirements, and such action will be taken only in rare and compelling circumstances.

## Special Action

In rare and compelling circumstances, an applicant who doesn't qualify for admission under the previous provisions may be admitted by special action if on recommendation of the appropriate faculty of the department/college concerned and in the judgment of the Associate Vice President for

Graduate and Undergraduate Programs or his/her designee there exists acceptable evidence that the applicant possesses sufficient academic, professional, and other potential pertinent to her/his educational objectives to merit such action, as shown through aptitude scores, recent academic performance, and experiential background.

## Graduation Writing Assessment Requirement (GWAR)

As a requirement for advancement to candidacy, all graduate students must demonstrate competency in academic writing in English. Students must either submit evidence of having fulfilled this requirement elsewhere or attempt to fulfill it no later than the end of their first semester of matriculation at CSULB. All graduate students must fulfill this GWAR by one of the following:

1. Passing the Writing Proficiency Exam (WPE)
2. Passing another approved assessment of writing competence
3. Having fulfilled a GWAR as part of their baccalaureate degree(s) while matriculated at CSULB or at another CSU campus
4. Earning a CSULB-approved passing score on the writing portion of an approved standardized graduate admissions test, such as the Graduate Record Examination or the Graduate Management Aptitude Test
Students with degrees from non-CSU campuses must either provide proof of meeting the requirement with adequate scores on a CSULB-approved standardized graduate admissions test or attempt to satisfy the GWAR by the end of their first semester of matriculation at CSULB. Assessments of writing competence from non-CSU campuses will be evaluated by the GWAR Coordinator as a fulfillment of the GWAR on an articulation basis if possible, or on a case-by case basis if necessary.

Graduate students must satisfy the GWAR before they will be advanced to candidacy. (Advancement to candidacy requires satisfying the GWAR and satisfactorily completing six or more semester units in residence earning a 3.0 GPA or greater.) Graduate students must also visit their graduate faculty advisors in their first semester to determine if additional departmental or program writing requirements apply to their advancement to candidacy.

Students can register for the WPE at the Office of Testing and Evaluation Services, BH-216 (562) 985-4007, www. csulb.edu/centers/tests. Students must pay a fee each time they take the test to cover the costs of test administration and scoring. Students may attend free three-hour workshops one to two weeks prior to each WPE date indicated in the Schedule of Classes and may obtain information about these workshops from the Testing Office.

Students who need assistance to prepare for the WPE should contact WPE faculty advisors in the Learning Assistance Center Academic Services Building Room 012, (562) 985-5350 to determine if tutoring, WPE Preparatory Classes, or a special course like ENGL 301 A/B would be helpful. Students who do not pass by their second attempt must meet with a WPE faculty advisor in the Learning Assistance Center and subsequently provide evidence of following the advisor's recommendations before registering to take the WPE a third time.

It is the students' responsibility to insure that any passing scores they have earned on the essay portions of standardized graduate admissions tests are reported to the Office of Enrollment Services. It is also the students' responsibility to insure that their specific department or program receives up-to-date GWAR scores and information.

## Second Master's Degree

A graduate student who is currently enrolled in a master's program at CSULB must complete that master's program before enrolling in courses for another degree. A graduate student who already holds a master's degree from this or any other accredited institution but desires to become a candidate for a second master's degree in a different field is subject to the following regulations:

1. All admission requirements of the University and college or department must be met (all general regulations listed in the Catalog apply to the second master's degree);
2. Enrollment and approval of candidacy for the second degree will be granted only after the first degree has been completed and awarded;
3. All requirements for the new degree must be completed;
4. After awarding of the first master's degree, a minimum of 24 units of graduate residence credit must be earned at this University including the minimum of 500/600-series units mandated by the major department in which the student is earning the second master's degree;
5. No more than six units earned on the first degree may be applied to a second master's degree;
6. Prerequisites for an advanced course must be completed prior to enrollment in the advanced course. An instructor may disenroll a student who does not provide evidence of adequate preparation;
7. All prerequisites must be completed prior to application for candidacy;
8. Two master's degrees cannot be awarded concurrently;
9. The area or discipline in which the second degree is earned shall be designated on the transcript and a second diploma awarded.

## Graduate Study in the International Programs

Students planning to participate and receive unit credit toward a master's degree in an International Program should consult with the graduate advisor in the department of their major and college dean or director of graduate studies before entering the degree program.

Graduate students who have not been admitted to candidacy for a master's degree and who participate in the International Programs may, upon their return to California State University, Long Beach, petition to have six units earned as resident credit in the International Programs included on their official student program for the master's degree. In no case may excess grade points earned in the International Programs be used to bring a grade-point deficiency at California State University, Long Beach to the required 3.0 (B) average.

Students admitted to candidacy for a master's degree who plan to participate in the International Program of Studies must obtain permission, prior to beginning their study abroad, to have units earned abroad applied toward satisfaction of their degree requirements. A candidate's
petition to apply units earned abroad must be reviewed and recommended by the department offering the degree. The specific courses to be taken on the foreign campus, thesis research which is to be done abroad, or any other requirements such as examinations to be taken upon the student's return must be listed on the official student program. Usually no more than six units of credit may be transferred to apply toward the minimum 30 units for an advanced degree as a result of participation in the International Program of Studies, but a maximum of 12 units may be allowed by the Associate Vice President for Graduate and Undergraduate Programs or his/her designee in consultation with the University Graduate Council in a special case.

A copy of the candidate's graduate student program must be forwarded to the Resident Director for the foreign area, who must certify that any credit earned abroad is appropriate to meet graduate degree requirements.

Pending the faculty's evaluation of the student's work, a Report Delayed (RD) grade will be assigned in all courses in which work was completed abroad and which are offered to satisfy requirements toward an advanced degree.

## Change of Objective

Evaluation of credits transferred to the University is based in part upon the objective indicated on the application for admission. Candidates desiring a change in graduate objective to a discipline different from that indicated on the original application must reapply to the University. Reapplication requires the submission to the Office of Enrollment Services of a newly completed Graduate and Postbaccalaureate Admission form and payment of the associated fee. The proposed new graduate department or program will review the application and notify Enrollment Services of its decision. Students who are admitted to a new discipline must then seek approval of their official student program and advancement to candidacy, using the procedures indicated below under "The Program" and "Advancement to Candidacy." Students who are not admitted to a new discipline have the option of continuing to pursue their original objective.

The only exception to the procedures described in the preceding paragraph is for students seeking to change from one degree program to another degree program within the same discipline (for purposes of this regulation, all options offered by the College of Education are considered to be part of a single discipline). In such cases candidates must obtain a Petition to Change Objective from the Office of Enrollment Services, obtain the required department/ program signatures, return the completed petition form to Enrollment Services, and then seek approval of their official student program and advancement to candidacy, using the procedures indicated below under "The Program" and "Advancement to Candidacy."

## Withdrawal from the Degree Program

If a student wishes to resume graduate study after withdrawal, the student must reapply to the University and to the graduate program. If admitted, the student must be readvanced to candidacy and the department or college may determine that the student's graduate program should be changed.

## University Regulations Governing the Master's Degree

## General

The following regulations apply to all graduate degree programs. Specific academic and curricular requirements of individual degree programs are given in the departmental listings of this catalog.

All regulations involving a calculation of grade-point average subsequent to admission to the University as a graduate student shall be based on the following common practices and standards.
"Cumulative Graduate Grade-Point Average" shall be calculated on all upper-division and graduate-level coursework attempted by a student at this University after completion of a baccalaureate degree.

Grade-point average standards calculated on the basis of a smaller range, grouping, or set of upper-division and graduate-level courses, for example, "courses in the major" or "courses taken since admission to the degree program," presuppose that the student has met the minimum standard for any larger range, group, or set, including the Overall Graduate Grade-Point Average.

1. A student pursuing the master's degree must maintain an Cumulative Graduate Grade-Point Average of 3.0 (B). Exceptions to the 3.0 (B) Cumulative Graduate Grade-Point Average may be made only on the recommendation of the departmental faculty offering the degree, the college dean or designee, and approval by the University Graduate Council.
2. At least a 3.0 (B) average must be maintained in the degree program.
3. No course with a grade lower than "C" may be applied toward the fulfillment of degree requirements.
4. Graduate students cannot repeat courses either for credit or to improve their grade-point average.
5. The individual course of studies (student program) for the master's degree must contain a minimum of 30 units in upper-division and graduate courses.
Some degree programs require additional units. Please consult individual degree program requirements.
A minimum of sixty percent of the units required for the degree shall be in the 500- and 600-level series and these shall be completed at this University, consistent with departmental requirements. Student teaching cannot be included in any master's degree program. All upper-division courses marked with an asterisk (*) may be included in the master's degree programs of the department listing the course. With permission of the student's department graduate advisor, asterisk-marked courses may also be used on other graduate degree programs, when appropriate. Normally, other non-marked courses are not used.
6. A thesis, project, or final comprehensive examination must be completed. A minimum of four and a maximum of six semester units shall be allowed for a thesis or project.
Failure of the comprehensive examination or thesis requirement is failure of both options. Thus, a student failing the comprehensive examination may not proceed to the thesis/project option or vice versa. Once a student has completed a semester of enrollment towards fulfillment of either the comprehensive examination or thesis/project
option, the student may not change from one option to the other without the approval of the faculty concerned, the department chair, and the appropriate dean or designee.
7. No fewer than 24 semester units shall be completed in residence at the University. The Associate Vice President for Graduate and Undergraduate Programs or his/her designee may authorize department/college approved substitution of credit earned by alternate means for a part of the residence requirement. Units, including continuing education or extension units, accepted by transfer for application toward the minimum units required for a master's degree cannot be used to fulfill the minimum unit requirements in the 500/600 series. This 500/600 unit requirement must be completed in the major discipline and in residence at this University.
8. All requirements of the degree program must be completed within seven years of the date the student program was initiated, i.e., the date (semester) when the earliest course appearing on the student program was completed. An extension of time beyond the limit may be granted by the Associate Vice President for Graduate and Undergraduate Programs or his/her designee if warranted by individual circumstances and if the outdated work is validated by comprehensive examination in the relevant course or subject field work, or such other demonstration of competence as may be prescribed by the department and/or college.
9. A graduate student who expects to receive a degree at the end of any semester or summer session must be enrolled during that semester or session and must complete the Request to Graduate Form well in advance. The appropriate request for Spring or Summer candidates must be filed by the preceding October 1; for Fall candidates, by the preceding March 1 at the Office of Enrollment Services. The names of candidates who file within these deadlines will appear in the Commencement Program published each Spring.
Note: Graduate Studies 700 may only be used to fulfill the enrollment requirement if the applicant has completed all degree program courses prior to the semester of graduation. An incomplete grade not otherwise resolved prior to graduation will automatically revert to the letter grade indicated on the "Requirements for Assigning an Incomplete Grade" form. A course with an unresolved grade of RP (Report in Progress) will remain on the transcript but will be removed from the student's program of study. Incomplete grades cannot be resolved after graduation.
10. Proficiency of a student in all parts of a curriculum is determined by the faculty of the University. A favorable vote of the faculty is required for a student to receive the degree.

## The Program

A student must consult with the graduate advisor of the department or college to prepare a tentative degree program. After completing prerequisites and other requirements, the student must formulate an official student program and apply for advancement to candidacy.

The department will assign the student a faculty advisor who must be consulted about preparing a degree program. The advisor should have an official evaluation of the student's previous work from the Office of Enrollment Services, although transcripts provided by the student may be used to develop a tentative student program and discuss degree requirements.

When the Office of Enrollment Services' evaluation and the results of tests are available, the faculty advisor can assist the student in drawing up a student program. This student program must be approved by the student's faculty advisor, the departmental graduate advisor, and college dean or director of graduate studies or, for Interdisciplinary Studies, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. The student program must list the following:

1. Courses required for removal of undergraduate deficiencies;
2. All courses taken prior to advancement to candidacy which are to apply toward the 30-unit minimum;
3. Required courses;
4. Elective courses.

The official student program, when approved, serves as the basis for the Office of Enrollment Services' graduation check which is required before the degree can be granted. Students who have not been advanced to candidacy are subject to all changes as published in the Catalog, Policy Statements, and certifications.

Graduate student programs may be revised as the student advances toward the degree. Such revisions must be recommended by the faculty advisor and approved by the departmental graduate advisor and the college dean or director of graduate studies or, for Interdisciplinary Studies, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

## Advancement to Candidacy

Advancement to candidacy is the next step after achieving classified status and confers the equivalent of catalog rights on graduate students. Advancement to candidacy also signifies approval of a plan of study by the student's major department and college or, in the case of an Interdisciplinary Studies graduate student, approval by the Director of the Interdisciplinary Studies Program and Associate Vice President for Graduate and Undergraduate Studies or designee. The prerequisites to advancement to candidacy are:

1. Classified status;
2. Fulfillment of the CSULB Graduation Writing Assessment Requirement (GWAR). Information is available in Testing and Evaluation Services (Brotman Hall 216);
3. A minimum 3.0 overall grade-point average and a 3.0 grade-point average in all units undertaken for the student program (at least 6 units);
4. Enrollment.

All graduate students are required to advance to candidacy when the above prerequisites have been successfully completed. Advancement to candidacy is to occur at least one semester or summer session prior to the semester (session) in which the student expects to graduate. It must occur prior to a student filing the Request to Graduate form with the Office of Enrollment Services. Filing deadlines are the same as for baccalaureate degree candidates. A student must be enrolled in the semester or summer session in which advancement to candidacy takes place. All students must consult with their graduate advisor regarding advancement to candidacy as well as to determine any departmental requirements to graduate from the University.

An approved graduate student program remains in effect as long as a candidate is making satisfactory progress. To insure minimum satisfactory progress toward the degree objective, the student must enroll every fall and spring semester and complete all degree requirements within seven years after completion of the first course on the student program. See also information about Graduate Studies 700 later in this section. The student may not change the graduate major without filing a new application for admission. If admitted to the new discipline, the student must then follow the steps indicated above for obtaining approval of a new student program and advancement to candidacy..

A student entering military service after having been advanced to candidacy will not be considered as having withdrawn from candidacy, provided that the student is inducted, enlisted, or called to active duty during a semester in which enrolled or not more than one semester thereafter, and provided that the student enrolls for work toward a degree within one calendar year of the date of release from service.

Students who have been advanced to candidacy and absent themselves from the University on educational leave will be considered as not having withdrawn from candidacy for an advanced degree, provided the terms of the educational leave are fulfilled. Such students must reapply when returning to the university, but the application fee will be waived.

A department or college recommends a student for advancement to candidacy by forwarding a graduate student program for approval to the college dean or director of graduate studies or the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. After the student's program has been processed and approved, a copy of the completed student program and a letter advancing the student to candidacy will be mailed to the candidate, with copies filed with the department or college and the Office of Enrollment Services.

A student must be enrolled in the semester or summer session in which advancement to candidacy takes place, and this must occur no later than one semester or summer session prior to completion of course requirements. Normally, a student is eligible and should file for advancement to candidacy after completing six units of graduate coursework for the graduate degree program with a 3.0 grade-point average.

## Election of Regulations

Graduate students advanced to candidacy will be held responsible for the regulations governing master's degrees in effect at the time of advancement or at the time the last requirement for the degree is met. A change in master's degree objective or readmission to a graduate degree program following withdrawal requires that a new student program be filed under the current graduate policies as published in the latest edition of the Catalog.

## Educational Leave

Any registered student, undergraduate or graduate, in good academic standing may request an Educational Leave. Students requesting an Educational Leave shall complete an Educational Leave Form in the semester before the leave is effective, including an explanation of their reasons
for seeking the leave and a statement of when they intend to resume academic work. The completed form is to be submitted for approval to the student's department chair (undergraduate) or graduate advisor. Undergraduate students who have not declared a major should submit the completed form to the University Advising Center.

The minimum initial leave will be one full semester; the maximum will be one calendar year. A student may request, in writing, in advance, an extension of the leave. Under no circumstances shall the total number of approved educational leaves exceed two, nor shall the duration of approved educational leaves extend beyond two calendar years.

Students returning from an approved educational leave are required to submit an application form but will not be required to pay another application fee. Students returning from an absence for which an educational leave was appropriate but not approved, in advance, must pay another fee.

Graduate students who plan to enroll for credit at another institution of higher education during the leave period must obtain prior approval from the department graduate advisor, department chair, and the college dean or designee for the transfer of course credit to the student's program.

The period of an educational leave is counted in the calculation of elapsed time under the regulations governing the maximum period for completion of degree requirements (seven years for graduate students).

For the period of an educational leave the student's rights under the Election of Regulations rule are preserved, maintaining the right of students to elect regulations as if they had maintained continuous attendance.

An educational leave presupposes no expenditure of University resources or faculty and staff time in behalf of the student during the period of the leave. In addition, no computer facilities, no library privileges, and no student services are available to a student on educational leave.

## Comprehensive Examination

Each department or college requiring a final comprehensive examination determines the content of the examination. Such examinations may be written or oral or both. A faculty committee shall represent the department in preparing questions, administering, and reading the examination. Through the comprehensive examination, the faculty provides an opportunity for the master's degree candidate to demonstrate analytic ability and knowledge of the discipline. Working with the department chair or dean of the college and the appropriate committee, the departmental graduate advisor usually assumes responsibility for scheduling the examinations and for selecting the other faculty members to participate.

Students may not enroll for courses in preparation for the comprehensive examination or take the comprehensive examination unless they have been advanced to candidacy for the master's degree or unless advancement to candidacy will occur in the semester in which the enrollment takes place.

During the first semester of residence, the graduate student should ascertain from the faculty advisor what preparation will be expected. Early in the final semester of study for the degree, the candidate should contact the departmental graduate advisor to make arrangements for taking the examination. The department or college will notify the Office of Enrollment Services whether the student has passed or failed
the final comprehensive examination. A candidate who has failed will usually be allowed to take the final comprehensive examination a second time, and the departmental graduate advisor should be contacted for specific procedures for the second attempt. To award a candidate the master's degree for a particular semester, the results of the comprehensive examination must be reported to the Office of Enrollment Services prior to the end of the semester.

## Theses and Projects

A student may enroll for Thesis (course 698 or 699) only when that student has been advanced to candidacy for the degree or when advancement to candidacy will occur in the semester of initial enrollment in Thesis.

Theses and projects submitted in partial fulfillment of the requirements for a graduate degree at this University shall meet the following definitions established by the Trustees of the CSU.

A thesis is a written product of the systematic study of a significant problem. It clearly identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Normally, an oral defense of the thesis will be required.

A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written abstract that includes the project's significance, objectives, methodology, and a conclusion or recommendation. An oral defense of the project may be required.

Students are responsible for understanding the definition of a graduate thesis as outlined above and must follow the format guidelines prescribed by the University and department in which the thesis is completed.

## Thesis Committees

A student's thesis committee shall consist of at least three members qualified in the areas relating to the thesis. At least two shall be full-time faculty members at CSULB, one of whom must be tenured or tenure-track. The chair of the thesis committee, including the chair of a committee for an interdisciplinary studies degree, must be a tenured or tenure-track faculty member from a department authorized to offer a graduate degree. The thesis committee must be approved by the appropriate department graduate advisor and the college associate dean or director of graduate studies. Normally the chair of the committee also serves as thesis director, but this is not necessarily so. The thesis director must be a person qualified in the specific area of the thesis, but need not be a tenured or tenure-track faculty member. The committee shall be responsible for the guidance of the student throughout the thesis effort. Any change in the composition of the committee requires justification and must be approved by the appropriate department graduate advisor and college associate dean or director of graduate studies.

Before agreeing to serve on a thesis committee, the prospective members will review the thesis topic and determine that they possess the requisite expertise to serve on such a committee, and that sufficient resources and materials exist and are reasonably available to the student to support such a study.

Thesis committee members will review the research competence of the thesis student before approving a thesis proposal.

Thesis committee members will advise and direct students in their thesis work and ensure that the thesis meets the standards and definition of a thesis specified above.

Thesis committee members will determine the grade to be awarded for completion of the thesis; and by signing the thesis signature page, thesis committee members certify that they have determined that the thesis meets the required standards of scholarship, format, and style of the discipline.

When the thesis committee includes a thesis director who is not the chair of the committee, this person may be identified on the thesis approval page as "Thesis Director."

## Thesis Committee Chairs

Thesis committee chairs will determine that the student has the proper preparation in terms of course work and research skills to pursue the proposed thesis.

In departments where this function is not carried out by graduate advisors, thesis committee chairs will advise the student in the selection of other members for the thesis committee, ensuring that the other members are appropriate to the proposed thesis effort.

Thesis committee chairs will be the major contact point with the student and will oversee the other committee members' work with the student.

Thesis committee chairs will assure that the editorial and format standards appropriate to the mechanical preparation of a thesis are followed.

Thesis committee chairs will establish guidelines for the student and timetables to be followed to ensure completion of the thesis in a reasonable time.

Thesis committee chairs will arrange for the oral defense of the thesis when required.

The thesis committee chair is responsible for canvassing the committee and reporting the grade agreed upon by its members. After the completed thesis has been reviewed by the University Thesis Office for conformance with prescribed format criteria and the approval page has been signed by the committee and by the dean or department chair, as appropriate, the final grade will be submitted.

## Thesis Office

All theses must be acceptable for deposit in the University Library. The Thesis Office in the University Library will verify that each thesis meets the format criteria prescribed by the department or degree program and by the University and that it meets all University procedural requirements for theses. Students should consult the University Thesis Office for information, advice, and assistance on the mechanics of preparing a completed thesis and should purchase a copy of Master's Theses and Projects: Guide to Style and Format (copies of this guide can also be checked out from the reserve desk in the University Library). The Thesis Office also conducts periodic workshops on how to prepare a thesis at CSULB.

## Academic Probation and Disqualification

## Graduate Students

For purposes of determining eligibility to remain at the University, both quality of performance and progress toward the student's objective will be considered. Eligibility will be determined by use of grade points and grade-point average.

Students who are enrolled in a graduate degree program in conditionally classified or classified standing will be subject to academic probation if they fail to maintain a cumulative grade-point average of at least 3.0 (as defined earlier under General Regulations Governing the Master's Degree) in all units attempted subsequent to admission to the degree program.

Every graduate student who has been advanced to candidacy must maintain a cumulative grade-point average of 3.0 and a grade-point average of 3.0 in all courses applicable to the degree. Candidacy for an advanced degree may be revoked if a student's cumulative grade-point average falls below 3.0 at any time. Students who become subject to dismissal from an advanced degree program will be notified of the action taken by the college associate dean for graduate studies or the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Graduate and post-baccalaureate students are subject to disqualification if within two semesters while on probation they fail to earn sufficient grade-points to be removed from probationary status. Disqualification will bar a graduate student from registering as a matriculated student at this campus. Furthermore, subsequent removal of GPA deficiencies by enrolling through UCES or at another university does not guarantee readmission to CSULB. A graduate student who has been disqualified must file a new application and be accepted by the department with the approval of the Associate Dean of the College.

## Other Post-Baccalaureate Students

A post-baccalaureate classified student who fails to maintain a cumulative grade-point average of 2.5 on all units attempted at the University will be placed on probation.

A student on probation who, prior to the beginning of the next term, fails to attain a cumulative grade-point average of 2.5 on all units attempted at the University will be disqualified.

A student who is disqualified because of scholastic deficiency may petition the appropriate program authority for readmission only after an absence of two semesters or upon successful completion of summer session courses which remove the grade-point deficiency.

Petitions for readmission must indicate the reason for requesting readmission and must include a statement of any academic work successfully completed since disqualification or of any other activity which gives evidence in support of the petitioner's belief that readmittance is warranted. An application for admission and required transcripts, as well as the petition, must be submitted to the Office of Enrollment Services before the dates established by the University for filing applications.

## Grievance Procedures

I. Statement of Governing Principles
A. A graduate student may only file a grievance based on an alleged violation of specific University regulations or policies or accepted principles of due process and only if another specified remedy (such as the University Grade Appeal Policy in the case of all course grades) does not exist.
B. A grievance may not be filed on the basis of a graduate student's judgment of an instructor's or administrator's competence; such judgments are solely the province of the academic department involved or of the administrator's supervisor.
C. A grievance must be initiated within one calendar year of the alleged violation.
D. Graduate programs should make every effort to obviate the possible causes of a grievance in advance by developing clearly written statements of procedures and standards governing decisions that affect graduate students, such as admission into a program, dismissal from a program, administration of comprehensive examinations, selection for field experience, et cetera. Graduate programs should also have in place a mechanism, such as an appeals committee, to provide due process review at the local level when a graduate student so requests. Due process review is an evaluation of the procedures and standards followed in arriving at a decision; it should be conducted by qualified members of the faculty who were not involved in making the original decision. The purpose is not to second-guess the original decision, but rather to make certain that the appropriate procedures and standards were applied in a manner free of arbitrary, prejudicial, or capricious behavior.
E. Final decisions affecting graduate students should be made only on substantive grounds by the personnel who are most qualified professionally, namely the faculty offering a particular graduate program. When subsequent review shows that appropriate procedures or standards have not been followed in arriving at a decision affecting a graduate student, the preferred remedy is to remand the case back to the faculty of the graduate program for their reconsideration. An error in procedure should not become grounds for reversing a substantive decision. In the event that the faculty of a graduate program persist in a failure to follow appropriate procedures or standards, the Graduate Council will consider that situation as an indication that the program should be reviewed for suspension or discontinuance.
II. Informal Resolution

A formal grievance may be filed by a graduate student only after the student has first sought to resolve the grievance by informal means. The graduate student should begin by contacting the chair or director of the program offering the degree, explaining the nature of the perceived problem, and requesting reconsideration of the decision. If the chair or director was directly involved in the original decision or denies the student an opportunity for due process review at the local level, then the student should seek informal resolution through the college's Associate Dean for Graduate Studies.

## III. Formal Resolution

A. If an attempt at informal resolution is unsuccessful, a graduate student may file a formal grievance with the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. The grievance must be filed in writing within 30 calendar days of the time when informal resolution was unsuccessful. The grievance must include a full statement of the graduate student's evidence that a University regulation or policy or an accepted principle of due process was violated, as well as an explanation of the efforts made to seek informal resolution. The Associate Vice President for Graduate and Undergraduate Programs or his/her designee will verify that a good-faith effort at informal resolution was attempted by the graduate student and that no more than one year has elapsed since the alleged violation occurred.
B. If these conditions have been satisfied, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee will forward the grievance to the Steering Committee of the Graduate Council. 1. If a member of the Steering Committee is a faculty member of the graduate program involved in the grievance, that member of the Steering Committee shall be replaced by another member of the Graduate Council, elected for that purpose, whenever the committee considers any matter related to the grievance.
2. The Steering Committee will forward a copy of the grievance to the chair or director of the graduate program, requesting that a written response be submitted to the committee within 20 working days of receipt of the grievance.
C. When the Steering Committee receives the written response to the grievance, it will determine whether there is sufficient evidence to render a summary judgment or whether the grievance merits further review. The Steering Committee may decide:

1. That there is not sufficient evidence of a violation of a University regulation or policy or an accepted principle of due process and dismiss the grievance; such a decision shall be final, unless further review is granted by the President.
2. That there is sufficient evidence of a violation of a University regulation or policy or an accepted principle of due process to warrant immediate remanding of the grievance to the graduate program, with explicit instructions concerning the violation that must be corrected during the graduate program's reconsideration of the case.
3. That the evidence in the case is such that further review is required; in such an instance the Steering Committee shall notify both the grievant and the graduate program in writing of the additional evidence the committee wishes to see and whether that evidence should be provided in writing or in personal testimony before the committee.
D. If the Steering Committee seeks evidence by means of personal testimony, the meeting at which such testimony is presented shall be conducted in the manner of any other academic committee meeting and not as a formal
hearing; both the grievant and the graduate program shall be given appropriate opportunities to present their views, but the meeting shall be conducted as an inquiry by the committee members, and not as an adversarial proceeding; there shall be no cross-examination.
E. All meetings at which the Steering Committee considers a grievance shall be closed to the public; the committee shall keep minutes of the meeting, but it need not tape-record its proceedings, nor shall a transcript be prepared.
F. When the Steering Committee is satisfied that it has obtained sufficient evidence to make a determination in the case, it shall make its decision in accordance with the provisions of Paragraph III.C. 1 or III.C. 2 above.
G. The Steering Committee shall report to the Graduate Council on the issues involved in the grievance and on its determination of the case, without identifying the graduate student who filed the grievance.

## Academic Credit

## Credit/No Credit Grading

A graduate student may take courses at the 100/200/300/400 levels under the Credit/No Credit grading policy; however, no course in which a grade of "CR" has been assigned may be used to fulfill the requirements for a master's degree, except that the grade of "CR" may be permitted for master's theses or projects to a maximum of six units when the individual department has specifically designated Credit/No Credit grading for the thesis/project course in the department and for field work, practicum, and/or internship courses.

For graduate students, courses at the 300/400/500/600/700 levels require "B" level proficiency to merit award of the "CR" grade; at the 100/200 levels "C" level proficiency or better is required for award of the "CR" grade.

The option of Credit/No Credit grading for graduate students on 100/200/300/400-level courses is subject to specific regulations of the individual departments regarding their graduate students and regarding the authorization for this option intrinsic to the approved course. Otherwise, no limitation exists as to the number of courses taken under this policy.

## Waiver of Course Requirement and Credit by Examination

No waiver of course requirements or credit by examination may be used to satisfy master's degree requirements. However, the following rules govern course waivers or credit by examination in satisfying prerequisites for admission to candidacy in any master's degree program.

Any candidate for a master's degree who believes that previous training has provided adequate preparation in a certain area may request a waiver from the department concerned.

A candidate may also apply for course credit by examination, but only for prerequisite courses and not to satisfy any of the requirements for the master's degree. Requests for such examinations must be made to the department concerned and approved by the department
chair. Credit by examination is restricted to courses published in the current CSULB Catalog. Please see Credit by Examination in the General Regulations section of this Catalog.

All course credit by examination will be recorded as CR (Credit) and will not be included in calculation of grade-point averages; such credit may not be used to remove a grade of "D" or "F" in a course already attempted, nor may course credit by examination be granted for any course which is a prerequisite to one for which credit has already been received.

## Graduate Transfer Units by Extension

At the option of the college or department offering an advanced degree requiring a total of thirty units, up to six units of approved extension/continuing education or transfer credit is acceptable on graduate student programs. At the option of the college or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/continuing education credit if taken at CSULB. These limits may be increased further for graduate degrees requiring more than 30 units provided that (1) no graduate degree may be awarded by CSULB unless at least 24 units are taken in residence, and (2) no graduate student program may use either extension/continuing education or transfer credit to satisfy the requirement that at least 60 percent of the total units be taken at the 500 and 600 levels. Extension courses completed at campuses including California State University, Long Beach shall be acceptable within the six-unit transfer limit, provided the work can be properly evaluated and the course is acceptable as graduate work for an equivalent graduate degree on the campus where taught. Extension/continuing education and transfer course material shall be evaluated and approved by CSULB faculty teaching in the topic area in conjunction with the department graduate advisor and college associate dean or director of graduate studies. Final approval/ disapproval shall be the responsibility of the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Extension/continuing education credit may not be used to reduce the minimum units required in a discipline for a master's degree, that is, extension credit may be used to complete coursework required outside the discipline. Excess grade points earned in extension classes may not be used to offset a grade-point deficiency in the total graduate record.

Grades earned at another institution may not be used to offset grade-point deficiencies in courses taken at this University. However, grades of "C" earned at another institution in courses transferred to satisfy subject matter requirements for an advanced degree at this institution must be balanced by grades of " $A$ " at this University to meet the required 3.0 ("B") overall average.

Credit earned by correspondence or by examination cannot be used to satisfy master's degree requirements.

## Graduate Studies 700

Every semester, graduate students must be registered in a course or in GS 700 or must have an approved educational leave. Registration in GS 700 is restricted to graduate students who have completed all course work,
have been advanced to candidacy, and have departmental approval. Registration in a course or in GS 700 also is required in winter or summer session if that is when a student plans to graduate. Although no unit credit is added to the student's program or transcript, GS 700 is considered as one unit of concurrent enrollment credit for fee payment purposes, payable at University College and Extension Services. Application forms are available from and must be approved by department graduate advisors. Registration in GS 700 is CR/NC only.

## Academic Load

Nine units per semester is a normal academic load for a full-time graduate student engaged in study toward a master's degree. If a candidate wishes to exceed this limit, it should be discussed with the departmental graduate advisor. The maximum load for graduate students working toward a master's degree is 16 units per semester. Students who are employed full-time should not exceed six units per semester.

Graduate students who wish to register for more than one unit of credit per week of attendance during the summer session must secure advance approval from the college associate dean or director of graduate studies. Petition forms and information may be obtained in the college offices.

## Honors

## The Graduate Dean's List of University Scholars and Artists

The Graduate Dean's List provides for University recognition of its most outstanding graduate students. Candidates for this honor will normally have completed the coursework applicable to their graduate student programs at the University. The annual list is limited to one percent of the University's graduate enrollment. Those honored will be named in the Commencement Program and will receive a certificate from the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

## Departmental Graduate Student Honors

In recognition of outstanding graduate student achievements, departments may honor graduating master's degree candidates by special recognition in the annual commencement ceremonies. Departmental graduate student honors are reserved throughout the University to two students (or a maximum of ten percent) from a department. Departmental graduate student honors are usually restricted to students not otherwise recognized by University or college awards. These honors are normally conferred for excellence in and contributions to the discipline, including outstanding seminar papers, artistic exhibitions, special achievements in field work and in University committees and functions, as well as participation in scholarly and professional organizations resulting from student research.

## COLLEGE OF THE ARTS

## Dean

Donald J. Para
Associate Dean
Holly Harbinger
Administrative Services Manager
Patti Meylor-Brown
Director, Development
Gregory Pierre Cox
Director, Marketing and Public Relations
Bethany Price
Director, Special Projects
Rosalinda O'Brien
Director, Technology
Martin Brenner
Assistant to the Dean
Noelle Leiblic
Assistant to the Associate Dean
Karen Warner
Director, University Art Museum
Christopher Scoates
Executive Director, Carpenter Performing Arts Center Peter Lesnik
Director, California Institute for the Preservation of Jazz
Richard Birkemeier

## College Office

Academic Services 115
Telephone
(562) 985-4364

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The College of the Arts at California State University, Long Beach is one of the largest and most respected state supported arts schools in the country. With nearly 4,000 students studying in six departments, the College of the Arts (COTA) offers nationally recognized, fully accredited degree programs in Art, Dance, Design, Film and Electronic Arts, Music, and Theatre Arts. The College of the Arts is located in close proximity to the Los Angeles/Hollywood area and has many ties to the arts and entertainment industries. The curriculum focuses on professional development in the applied or performance fields of study. The goal of most students is professional employment as artists, designers, or performers in their chosen disciplines.

The learning opportunities within the College of the Arts reflect its commitment to the arts in all forms. For performers, artists, and scholars, the College of the Arts provides an environment designed for individual achievement. It offers programs to meet the needs of students who wish to:

- Pursue professional careers in art, dance, design, music, electronic media, film, or theatre arts
- Teach one or more of the arts
- Explore the creative uses of technology in the arts
- Follow a degree program that provides a broad education with a focus in the arts
- Learn about the history and nature of the arts in Western and non-Western cultures
- Develop appreciation of art forms and their lasting value to the quality of life
The College of the Arts offers a comprehensive variety of professional degree programs meeting the highest standards of excellence, including the Bachelor of Fine Arts Degree in Art, Dance, and Design; the Bachelor of Science Degree in Industrial Design; the Bachelor of Music Degree; the Master of Fine Arts Degree in Art, Dance, and Theatre Arts; and the Master of Music Degree.

Students wishing to earn a degree or certification in arts education may choose from the Bachelor of Arts Degree in Art Education or the Bachelor of Music Degree in Instrumental or Choral/Vocal Music. Single Subject Certification for the state of California is offered jointly between the College of the Arts and the College of Education. Finally, the College offers Masters of Arts Degrees in Art Education, Dance Education, and Music Education.

For those students who wish to obtain a liberal education with the arts as a focus, the departments of Art, Dance, Music, Film and Electronic Arts, and Theatre Arts offer appropriate Bachelor of Arts degrees. The Departments of Art, Design, and Music also offer the Master of Arts Degree. Other special programs include certificates in Biomedical Illustration and Museum Studies.

Departments in the College are accredited by the major accrediting agency for their discipline: The National Association of Schools of Art and Design, The National Association of Schools of Dance, The National Association
of Schools of Music, and the National Association of Schools of Theatre. The faculty of the College of the Arts is an accomplished group of artists and scholars who bring significant expertise and professional experience to their teaching assignments.

The College of the Arts is also home to the University Art Museum (a nationally accredited art museum which presents exhibitions of professional stature focusing primarily on contemporary artists) as well as the California Repertory Company and the California Institute for the Preservation of Jazz. California Repertory Company, the Theatre Arts Department's graduate and professional theatre program, is the only company of its kind in the CSU system.

Major performance and exhibition facilities include the University Art Museum, the Art Department Galleries, the University Theatre, the Studio Theatre, the Edison Theatre, the Gerald R. Daniel Recital Hall, the Martha Knoebel Dance Theatre, and the Richard and Karen Carpenter Performing Arts Center. The extensive performance calendar generated by the wide-ranging curricula includes over 300 student and faculty concerts, film showcases, theatre productions, dance performances, and art and design exhibitions. The College of the Arts is a highly visible part of the campus community, as well as an important cultural and economic resource in the Long Beach/Los Angeles and Orange County areas.

## University Art Museum

The University Art Museum, which recently celebrated its $25^{\text {th }}$ anniversary, is ranked among the top $10 \%$ of the nation's 7,000 -plus museums. The only accredited museum in the CSU system, it has achieved worldwide acclaim for its exhibitions, publications, and collections of contemporary artworks. In 1999, the museum was the recipient of the Hampton Collection, a $\$ 3.2$ million gift featuring 85 stunning mid-century abstractions by 42 artists.

## The Richard and Karen Carpenter Performing Arts Center

The Carpenter Performing Arts Center opened in 1994. Designed by local architect Donald Gibbs, the elegant performance hall has enriched the surrounding community with hundreds of music, dance, film, and theatre events. The Carpenter Center, which seats 1,065 patrons, can accommodate large or small performing ensembles, film screenings, concerts, conferences, and other special events.

## The California Institute for the Preservation of Jazz

The Jazz Institute is a state agency housed in the College of the Arts. The Institute's mission is to provide jazz education, outreach, performance, and preservation services for the western region of the United States. The Jazz Institute has acquired more then 50,000 records, 7,500 compact discs, 5,000 tapes, and thousands of books, periodicals, photos, and memorabilia, as well as a collection of broadcast transcriptions and hundreds of hours of filmed and videotaped performances.

## Courses (COTA)

## UPPER DIVISION

## 450. Arts of the 20th Century (3)

Involves all six departments in the College of the Arts and is designed to familiarize COTA students with art forms outside their major. Examines role and function of the arts in society in terms of philosophy and ideology.
Letter grade only (A-F).

## COLLEGE OF BUSINESS ADMINISTRATION

## Dean

Luis Calingo
Executive Assistant to the Dean
Nelson Horn
Associate Dean
M. B. (Mo) Khan

Assistant to the Associate Dean
Margaret Williams (562) 985-7696
Associate Dean for Academic Initiatives
Vacant
College Office
College of Business Administration - 200
Telephone / FAX
(562) 985-5306 / 985-5742

Administrative Services (562) 985-7690
Betty Harris, Manager
Development Office (562) 985-2264
William C. Hendry, Director
Student Life and Development (562) 985-8600
Jeane Caveness, Assistant Dean of Students
Graduate Programs and Executive Education (562) 985-1797
H. Michael Chung, Director

Undergraduate Admissions and Advising Center (562) 985-4514

Carol Grutzmacher, Director
Mentoring Business Program (562) 985-2265
Anna Liza Garcia, Director
Instructional Technology (562) 985-4988
John Ferretti, Director
Instructional Support Center (562) 985-5628
Stephenie Canavan, Director
Departments
Accountancy (562) 985-4653
Steve Fisher, Chair
Finance (562) 985-4569
Sim Crowther, Acting Chair
Human Resources Management \& Management (562) 985-4753
Roger Stanton, Chair
Information Systems (562) 985-4993
Robert Chi, Chair
Marketing (562) 985-4769
Richard Celsi, Chair
International Business Program (562) 985-5072
Clyde Stoltenberg, Director

The College of Business Administration seeks to prepare its students for entry into successful careers in business. As each graduate pursues a successful career, it is anticipated that personal responsibility will be accepted for maintaining and enhancing the quality of the society in which business and the individual operate.

## The College

The College of Business Administration has five departments: Accountancy, Finance, Human Resources Management and Management, Information Systems and Marketing. Each is responsible for administering one or more of the degree options.

## Overview of Programs

## Accreditation

The College of Business Administration offers undergraduate and graduate programs of study. Both programs are nationally accredited by the Association to Advance Collegiate Schools of Business - International (AACSB), 777 South Harbour Island Blvd., Suite 750, Tampa, FL 33602-5730, phone: (813) 769-6500, and may lead to completion of the following:
Bachelor of Science in Business Administration
Specialization may be made in a choice of the following areas, hereafter referred to in this Catalog as Options: Accountancy; Finance, Real Estate and Law; Human Resources Management; International Business; Management; Management Information Systems; Marketing; Operations Management. (See following pages for more information.)
Students who complete and formally declare two options may be regarded as having completed a double major, and appropriate notation can be made on the transcript.
Minors in Business Administration
The College of Business Administration has developed minors available to any non-business undergraduate student. Significant preparation for business employment may be developed through completion of an organized program from one of the following areas: Management Information Systems, Human Resources Management, Marketing, Entrepreneurship.
(Refer to the section on Minors for more information.)
Master of Business Administration
Specialization may be made in one of the following areas: Accounting, Finance, Health Care Management, Human Resources Management, Information Systems, Management, Marketing. (Refer to the following pages for more information.)
Student Services
The College of Business Administration maintains an advising and admissions office in CBA Room 105 for undergraduate students. There is an office for graduate students in CBA 363. Advisors are available in these offices throughout the semester to assist students with admission,
registration, and degree requirement information. An undergraduate handbook is available in the campus copy center.

## The Mentoring Business Program (MBP)

MBP is a support program within the College of Business Administration. Our focus is to assist students with their transition into college and into the business industry. Each student is paired with a mentor at each stage of their academic and professional development. Freshmen and sophomore students are mentored by upper division business students or faculty as they begin their educational journey at CSULB. Junior and senior students are connected with corporate professionals in business industry. This relationship assists our students with networking and internship opportunities as they prepare for their transition into their professional careers. The Mentoring Business Program also encourages students to become involved with a business student organization to assist them in meeting students and expanding their opportunities. We also provide business workshops, corporate tours and scholarships. For details regarding our application process, please call The Mentoring Business Program at (562) 985-2265.

## Financial Assistance

Financial assistance is provided to business students through the University Financial Aid Office. That office administers funds made available through the federal and state governments and through certain private sources. Awards are made to students who demonstrate a need for assistance with educational expenses.

Selected scholarships and fellowships within the College of Business Administration are publicized. Consult the Director of Student Life and Development for information, CBA 210, (562) 985-8600.

## Achievement Awards

Beta Gamma Sigma "Outstanding Student in Business" Applications are usually due April 1. The award is presented in early May at the annual Beta Gamma Sigma Installation and Banquet.

Outstanding Graduating Senior Applications are usually due March 1. The award is presented at the May commencement ceremony, and the recipient is also honored at an Alumni Association banquet in June.

The Wall Street Journal Award (based on GPA) Applications from graduating seniors are usually due March 1. The award is presented at the May commencement ceremony.

## Student Organizations

Numerous organizations are available for business students. They include: American Marketing Association, Beta Alpha Psi/Accounting Society, Human Resources Management Association (HRMA), Information Systems Students Association, The Society for the Advancement of Management, Beta Gamma Sigma, Black Business Students Association, Delta Sigma Pi, Hispanic Students Business Association, Long Beach Entrepreneur Society, Professional Women in Business, International Association of Students in Economics and Commerce (AIESEC), Financial Management Association, Operations Management Association and Pacific Rim.

The Associated Business Students Organization Council (ABSOC) is a facilitating and coordinating organization for business student organizations. ABSOC is composed of elected officers from each organization. Through these student organizations each year business students are provided opportunity to meet representatives of business and industry. Prominent executives are, in addition, invited to the campus for dialogue with business students. ABSOC and the Associated Students co-sponsor the annual "Meet the Industries Night," a spring job fair which draws over 60 companies and several hundred students.

Beta Gamma Sigma: Beta Gamma Sigma, founded at the University of Wisconsin in 1907 as a business honor society, is the only honor society recognized by the AACSB - International. Membership is available to business students at California State University, Long Beach only because the College of Business Administration is accredited by AACSB.

Election to membership in Beta Gamma Sigma is the highest scholastic honor that a student in business administration can attain. To be eligible for membership at CSULB students must rank in the upper three percent of their junior class or the upper seven percent of their senior class, or rank in the upper ten percent of those receiving masters degrees in business administration.

The MBA Association is established to provide a mechanism to promote contact between members, potential employers and business people in the community through guest lecturers and other functions, to promote the flow of communication between individuals pursuing an MBA, and to establish a forum for discussion of issues affecting MBA students at CSULB. Every MBA student is eligible for membership and is encouraged to take an active role to enhance personal and association growth.

## Computer and Information Technology

Students in the degree program develop basic understandings and competencies relating to information processing, the application of computers in business and government, management information systems concepts, and computer programming. A computer laboratory facility is maintained within the College to provide computer access for business students.

## General Policies and Regulations

Specific University and College requirements are detailed in various sections of this Catalog. Every student must develop complete familiarity and understanding of the regulations and requirements by which successful completion of a program will be determined. (Also see pertinent section regarding University General Regulations and Procedures).

## Admission Under Impaction

Fall and Spring freshman applicants to the Bachelor of Science in Business Administration will be placed in the premajor code for Business Administration. Transfer applicants must apply to the University during the initial filing period of October and November for the following fall semester or August for the following spring semester. They must indicate their choice of major on the application.

Continuing students seeking admission to the upper-division major in Business Administration must submit a supplemental application to the College of Business Administration Advising Center (CBA, Room 105). Whereas there is no specific deadline for filing, it usually takes a minimum of two weeks to complete
the application process. Therefore, students should file their applications no later than two weeks before their next Early Registration access date.

Applicants must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted.

To be eligible for admission to the majors in Business Administration, applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 60 units applicable toward a CSULB degree prior to the term for which the application is submitted. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average. Admitted students must demonstrate computer literacy by the end of their first semester or they will be dropped from the major. Computer literacy may be demonstrated by a passing score ( 70 percent) on the CBA Computer Proficiency Examination, or completion with credit of IS 233 (Introduction to Computer Systems and Applications) or completion with credit of IS 240 (Management Information Systems) or completion of a transfer course equivalent to IS 233 or 240 with a grade of "C" or better.

## Special Enrollment Status

Enrollment through Open University (University College and Extension Services) is allowed only on a space available basis. Space availability is not based on the number of unoccupied chairs in a classroom. Instead, it is determined by the type of course and teaching method. The student must otherwise be qualified.

Disqualified students are not permitted to enroll in any course in the College of Business Administration.

## CBA Policy on Course Transfers/Substitutions

The College of Business Administration has a strict policy on course transfers/substitutions. This is necessary to preserve the academic integrity of programs and to meet accreditation standards. The transfer/substitution policy has two separate components: prior to matriculation at CSULB and post matriculation at CSULB.

## Prior to Matriculation at CSULB

Students may petition for credit courses completed at another recognized institution prior to matriculation at CSULB subject to the following guideline:

1. Lower division courses (with a grade of "C" or better) are transferred with the approval of the appropriate Department Chair.
2. Upper division courses (with a grade of " $C$ " or better) from AACSB-accredited business schools are transferred with the approval of the appropriate department chair.
3. Upper division courses (with a grade of "C" or better) from non-accredited business schools may be transferred subject to the approval of the appropriate department chair and associate dean.

## Post Matriculation at CSULB

Students may not transfer for credit any upper division major core courses taken at another school concurrently with or subsequent to their matriculation at CSULB. Exceptions are approved with verifiable proof and genuine needs according to the following requirements: (1) approvals must be secured prior
to enrolling in courses in another institution; (2) no more than two courses may be transferred or substituted; and (3) a grade of "B" or better is necessary for course transfers/substitutions. Departments have the discretion to be more stringent with regard to these requirements. Exchange students and students participating in Study Abroad Programs are exempt from these rules.

## Grading Policy

Business majors and minors may not exercise a Credit/ No-Credit grading option for courses required by the College of Business Administration in their program. No course taken for Credit/No-Credit grading will be accepted to fulfill a Business requirement. Enrollment in a business course as an auditor is not permitted.

## UNDERGRADUATE PROGRAMS

## Honors in Business (code 1-0003)

The College of Business Administration (CBA) at California State University, Long Beach, offers the opportunity for a selected group of outstanding students to participate in the CBA Honors Program. This enriched, more demanding program gives students an opportunity to enroll in special 'Honors Seminars' composed of a small number of the CBA's most outstanding students that are taught by a select group of the College's faculty. In addition, students complete a senior project (much like an honors thesis), the topic of which is based on the individual student's interests and skills. Thus, the Honors Program offered by the CBA (CBAHP) is intended to be intellectually rewarding, and to provide a valuable experience that enhances students' future careers. Special focus is on those students who wish to pursue an advanced degree and career in academia.

The program is designed as a 3-semester program, ideally beginning in the Summer semester before the senior year. The program may be adjusted to accommodate students whose degree plan is 'off-track' or for motivated juniors. Typically, CBAHP students take a preliminary honors seminar the first semester, and progress to advanced honors seminars and their thesis project the following academic year.

## Admission

Admission is limited to approximately 20 students per year, but may increase depending on demand and college resources. Applicants are selected for their promise as interesting and creative individuals, not simply on the basis of grades or test scores.

## Admission Requirements

Each applicant must meet the following basic requirements:

1. A minimum 3.5 cumulative GPA in all college and university courses, and a minimum of 3.5 GPA in the major. Students with a $3.2-3.49$ may be admitted if they are nominated by two tenured faculty members of the CBA. A maximum of $10 \%$ of the students in the program will be admitted by nomination.
2. A minimum score of 14 on the Writing Proficiency Exam (WPE).
3. A completed application form. A personal interview may be requested at the discretion of the Program Director or Advisory Board.
4. At least one letter of reference from a CSULB tenured (or tenure-track) faculty member (CBA faculty are preferred). Additional outside character references (maximum of 2) are admissible as supplemental support for admission.
Applications should be addressed to the:
Director of the CBA Honors Program
College of Business Administration
1250 Bellflower Blvd.
Long Beach, CA 90840

## Program Requirements

Award of the Honors in Business requires:

1. Completion of the requirements of the major, with a minimum overall GPA of 3.5 and a minimum GPA in the major of 3.5.
2. A minimum GPA of 3.5 for all CBA Honors Program seminars.
3. Completion of the 3 Honors Seminars.

The seminars bring together scholars and noted business leaders from a broad range of disciplines/industries, and may involve multiple CBA faculty over the course of the program. Course projects are designed to 'fit' with the nature of the issues addressed, the expertise of the various distinguished guest speakers, and interests of the individual student.
4. Successful completion of the required Honors Thesis.
5. Students who fail to meet the above requirements or those who fail to enroll in CBA Honors Program courses will be withdrawn from the program. Others may also be withdrawn at the discretion of the Program Director for such reasons as unethical behavior or misconduct.

## Certificate in Transportation (code CBA_CT01)

## Requirements

1. A bachelor of science degree in Business Administration which may be completed concurrently with the certificate requirements;
2. A minimum of 15 units of transportation and transportation-related course work at California State University, Long Beach to be selected with the approval of the Program Director.
3. A grade of " $C$ " or higher will be required for every course;
4. The certificate program does not permit the use of the Credit/No Credit option.

## GRADUATE PROGRAMS

The College of Business Administration offers graduate study leading to the Master of Business Administration (MBA). The degree offered by the College of Business Administration is accredited by the AACSB - International.

The MBA is designed to serve the community by providing graduate business education to persons who show promise of leadership and success in business or related fields. For this reason, the faculty of the College of Business Administration has established rigorous standards of admission and completion for the program.

## Admission to Graduate Study

In addition to admission by the University Office of Admissions and Records, an applicant for graduate study in business must apply to and be admitted by the College of Business Administration. It is the responsibility of the student to purchase a current CSULB Catalog which sets forth the policies of the University and the College of Business Administration graduate program.

## Admission Procedures

1. Students interested in applying to the MBA program at CSULB should request a University application and an MBA Application Packet from the MBA office. Students must complete and submit both applications in order to be considered for admission into the graduate program in business. Students should submit Part A and B of the University Common Admissions form to the University Admissions Office. Students applying for the MBA should mark "other masters" as the degree objective, and 05011 as the major code. Students should submit the MBA application with two letters of recommendation directly to the MBA office.
2. Two complete sets of official transcripts of all college work attempted are required. One set must be sent to:
California State University, Long Beach, Office of Admissions and Records, 1250 Bellflower Blvd., Long Beach, CA 90840
The other set of official transcripts must be sent directly to the MBA Office at the following address:
California State University, Long Beach, College of Business Administration, MBA Office, 1250 Bellflower Blvd., Long Beach, CA 90840
3. Graduate Management Admission Test (GMAT) scores must be forwarded directly from the Educational Testing Service to the College of Business Administration MBA Office. Test scores over 5 years old will not be considered.
4. Foreign students should first contact the Center for International Education on campus for special deadlines. Foreign students are required to take the TOEFL test and achieve a score of 570, in addition to the steps above required of all applicants to the MBA program.
Deadlines for International applications are:
November for Fall Semester
August for Spring Semester
All transcripts, the MBA Application Packet, GMAT score and TOEFL score (if applicable), must be filed in the MBA Office by:
October 30 for Spring Semester
May 30 for Fall Semester (except for GMAT scores which must be received by June 15)
Because of high demand for admission to the MBA program, it is advisable that students make their application to the program early. No action can be taken on applications until all required documents are received. Application materials submitted after these dates will be reviewed and students will be admitted as time and space permits.

## Criteria

Admission will be granted to students showing high promise of success in post-baccalaureate business study. Each applicant's potential for graduate management education is evaluated on the basis of six major criteria:

1. Past Academic Record, as reflected in undergraduate GPA.
2. Graduate Management Admission Test (GMAT)
3. Managerial Experience: demonstration of increasing levels of responsibility.
4. Communication: ability to clearly identify the applicant's leadership potential, educational goals and academic strengths.
5. Two Letters of Recommendation
6. Essays

Upon completion of evaluation by the College of Business Administration MBA office, the student is notified by mail of acceptance or rejection. If accepted, the letter includes an evaluation listing prerequisites met by the student in previous course work and those still requiring completion. Course work over ten years old at the time of acceptance will not be considered for satisfaction of the First Year Core.

## Enrollment

Admission to the University as a graduate student does not constitute admission to graduate study in the College of Business Administration. MBA programs require additional admissions criteria.

## Admission to Graduate Courses

Only students who have been admitted to the MBA program may take graduate courses in Business Administration. The only exception is that students who have been admitted to other Master's programs at CSULB may take select graduate courses in Business Administration to meet the requirements for their programs, with the permission of their major advisor and the MBA office.

Enrollment in graduate courses through the Open University will normally be permitted only for students in an AACSB accredited graduate program elsewhere with a letter of permission from the Associate Dean/Dean of the student's home university.

## Continuous Enrollment

Once a student is accepted and enrolled in the MBA Program, he/she is expected to attend classes both semesters of the academic year. (Fall and Spring semesters are considered the regular semesters of the academic year; Summer attendance is optional.) Registration and completion of at least one course each semester satisfies the Continuous Enrollment requirement.

If a student is unable to satisfy the Continuous Enrollment requirement, he/she must complete the Educational Leave of Absence procedures detailed below. Continuous Enrollment status will only be preserved if the student's absence from a regular semester has been processed and approved through the Educational Leave of Absence procedures.

Students failing to maintain Continuous Enrollment status will be administratively removed from the MBA Program. Registration privileges will be revoked. Students planning to continue in the MBA Program who have been administratively removed due to the violation of the Continuous Enrollment condition will be required to re-apply to the MBA Program.

## Leave of Absence

Any MBA student in good academic standing may request an Educational Leave. Students requesting an Educational Leave must complete an Educational Leave

Form, in advance, including an explanation of their reasons for seeking the leave and a statement of when they intend to resume academic work. The completed form is to be submitted for approval to the MBA Office and the University Admission \& Records Office in accordance with University Policy.

The minimum initial leave will be one full semester; the maximum will be one calendar year. A student may request, in writing, in advance, an extension of leave. Under no circumstances will the total number of approved educational leaves exceed two, nor will the duration of approved educational leaves extend beyond two calendar years.

Students returning from an approved one semester educational leave are not required to submit an application form. Students on leave longer than one semester must apply for re-admission to the university. Students returning from an absence for which an educational leave was appropriate but not approved in advance must complete the entire MBA admission process.

An Educational Leave of Absence, if properly requested and processed, allows a student to satisfy the Continuous Enrollment requirement and therefore does not affect their good standing status. Students on an approved education leave of absence will continue to receive registration information and access to the VRR system until the authorized leave time expires.

Graduate students who plan to enroll for credit at another institution of higher education during the leave period must obtain prior approval for the transfer of course credit to the student's program for the department chair in question and the MBA Director.

The period of an educational leave is counted in the calculation of elapsed time under the regulations governing the seven year maximum period for completion of the MBA degree requirements.

For the period of an educational leave the student's rights under the "Election of Regulation" rule are preserved, maintaining the right of the student to elect regulations as if he or she had maintained continuous attendance. See the CSULB Catalog, General Rules and Procedures section, for a complete explanation of the Election of Regulation - "Catalog Rights".

An educational leave presupposes no expenditure of University resources or faculty and staff time in behalf of the student during the period of the leave. In addition, no computer facilities, no library privileges, and no student services are available to a student on educational leave.

## Transfer Credit

Assuming the Continuous Enrollment requirement has been satisfied, a maximum of six credits that closely complement the student's degree objectives may be applied toward the requirements for the MBA degree beyond the First Year Core under the following conditions:

1. the credits under consideration must be graduate credits
2. the course work must be taken at an AACSB accredited graduate program.
3. prior approval must be obtained from the MBA Director
4. prior approval must be obtained from the department chair of the course work being transferred.
The remaining units must be completed in courses at CSULB reserved exclusively for graduate students.

## Scholastic Standards/Probation/Disqualification

A student who fails to maintain a cumulative GPA of 3.0 or higher in all work completed as a graduate student at this University or in all transferred work applied to the program will be placed on academic probation. The semester in which the student's GPA falls below 3.0 is the First Probational Semester.

A student on probation, who at the end of the Second Probationary Semester (or summer, if classes are taken) fails to obtain a cumulative GPA of 3.0 or higher on all units attempted in post-baccalaureate work at CSULB, will be disqualified and removed from the graduate program. The student should note that the cumulative GPA is calculated by the University Admissions and Records Office and includes all upper division and graduate courses taken while enrolled in the graduate program.

A grade of " $C$ " or better is required in any course taken to satisfy first or second year Core requirements. A grade of " $B$ " or better is required in GBA 699. If either of these requirements is not met, a student must take the course a second time or withdraw from the program. A second failure to achieve the requirement grade will result in involuntary separation from the program. This requirement operates independently of the requirement for a cumulative GPA of 3.0 or better.

## Master of Business Administration (code CBA_MB01)

The Master of Business Administration program develops competencies essential to functioning professionally in a complex and competitive business environment. The program prepares students for responsible administrative positions and provides the background essential for advancement in professional management careers. The Master of Business Administration degree encompasses a program of breadth which builds a wide range of competencies required for effective management while permitting students to specialize in a functional area.

The Master of Business Administration is normally a 48-unit program for the graduate without an undergraduate degree in Business.

## General MBA

The General MBA is designed for students with an undergraduate business degree or any other student desiring a more broad-based MBA curriculum. The General MBA normally requires 12 units of graduate course work in three different areas within the College of Business Administration subject to approval by the MBA Office.

## Requirements

The Master of Business Administration program requires completion of a minimum of 36 units of graduate course work as established and approved by the College of Business Administration MBA office. The MBA program must include:

| I. First Year Core | $0-12$ |
| :--- | :--- |
| II. Second Year Core | 21 |
| III. Advanced Study | 12 |
| IV. Capstone Course | 3 |
| Total units | $36-48$ |

II. Second Year Core 21
III. Advanced Study 12

Total units 36-48

Students who have not had an economics course prior to entering the MBA program must complete an economics course as a condition to obtaining an MBA degree.

MBA students should be guided by the following sequence of events as they progress through their graduate study in the College of Business Administration.

## I. First Year Core: Common Body of Knowledge

The masters degree presupposes mastery of a common body of knowledge. Students with a bachelor's degree in business from this University or from other AACSB accredited business schools within the last 10 years will have met much of the First Year Core requirements. Individual business Administration courses taken as an undergraduate student at another AACSB institution may also meet specific First Year Core requirements. Upon acceptance to the program, a student's transcripts are reviewed for completion of the necessary course work for mastery of the common body of knowledge. A grade of "C" or better is required to meet the criteria.

Waivers of First Year Core are based upon previous educational background at either a graduate or undergraduate level. Information on waivers may be obtained from the College of Business Administration, MBA Office. Students who have not met the entire common body of knowledge requirements prior to admission to the MBA Program will be required to enroll in the appropriate First Year Core courses. This core must be completed before enrollment in the Second Year Core: ACCT 500, BLAW 520, MGMT 500, MKTG 500.

## II. Advancement to Candidacy

Students admitted with all First Year Core requirements completed must file an application for Advancement to Candidacy for the degree after completion of their first six units. Other students must file the application during the semester in which the First Year Core requirements are to be completed. Prior to advancement to candidacy, a student must:

1. Be accepted into the MBA Program.
2. Maintain an overall minimum 3.0 cumulative GPA, including work transferred from other institutions, and a minimum 3.0 GPA in all work completed at this University.
3. Complete all First Year Core Requirements, with no grade lower than "C".
4. Fulfill the Graduation Writing Assessment Requirement (GWAR). (See next section)
5. Prepare an official student program in consultation with the MBA Office. This program must include the Second-Year Core in effect at the time of Advancement to Candidacy, the 12 unit program for the area of Advanced Study and the Capstone Course, GBA 699, for a total of 36 units.
6. File the application for Advancement to Candidacy with the MBA office for approval by the MBA Director.

## III. Second Year Core

Upon completion of the First Year Core, either by waiver or graduate course work, students move directly into the Second Year Core. (See section on Advancement to Candidacy). This core consists of seven courses (21 units) which provide the breadth requirements for the MBA degree at the advanced level: ACCT 610, FIN 600, HRM 652, IS 601, IS 602, MGMT 647, MKTG 661.

## IV. Advanced Study

## MBA Specializations

Specializations require at least nine units of graduate course work in one area. Each specialization should be planned in consultation with the MBA Office.

## Accountancy

Requirements: nine elective units selected from ACCT 620, 630, 640, 650, 660, 670, 680, 695, 697.

## Engineering Systems

Allows students with a strong engineering background to specialize within the MBA program in an area that may more closely match their career objectives. This specialization consists of graduate courses within the College of Engineering, subject to approval by the MBA Director.

## Finance

Requirements: nine elective units selected from BLAW 524; FIN 525, 620, 630, 650, 690.

## Health Care Management

Requirements: HCA 502 and any two of the following: HCA 536, 537, 538, 550, 552.

## Human Resources Management

Requirements: nine elective units selected from HRM 650, 654, 655, 657, 658.

## Information Systems

Requirements: nine elective units selected from IS 545, 550, 564, 580, 584.

## Management

Requirements: nine elective units selected from MGMT 542, 543, 645, 646, 647.

## Marketing

Requirements: nine elective units selected from MKTG 610, 663, 665, 666, 668, 669, 695. May count three units of Directed Studies (697) toward Advanced Study requirements. Elective courses designed to fulfill specialization requirements must be approved by MBA Office through the completion and acceptance of student's Advancement to Candidacy form.

## V. Capstone Course: GBA 699

Integrated Analysis, GBA 699, is taken as the last or capstone course in the program. Students must plan to complete the Second Year Core before enrolling in GBA 699. This critical course is given during the Fall and Spring semesters. In this comprehensive analysis, the student will integrate the knowledge obtained in the functional areas. This capstone course serves in place of either comprehensive examination or thesis as the required evaluation of candidate competency. In lieu to completion of the required GBA 699, an MBA candidate may elect to complete a thesis for a minimum of four units credit.

Students must obtain a grade of "B" or better in GBA 699 in order to receive an MBA degree. Application for acceptance into GBA 699 must be filed in the MBA Office before the end of the fourth week of instruction in the semester preceding enrollment in the course. Application forms and advisement relating to this important requirement are available in the MBA Office.

## VI. Time Limitation

All courses on the official student program must be completed within seven years of commencement of the first class toward fulfillment of the Second Year Core requirement.

## VII. Graduation Writing Assessment Requirement (GWAR)

As a requirement for advancement to candidacy, all graduate students must demonstrate writing competency by:

1. Passing an approved CSULB assessment of writing competence (GWAR),
2. Having already passed an assessment of writing competence (GWAR) while matriculated at another CSU campus, or
3. Earning a CSULB-approved passing score on the writing portion of an approved standardized graduate admissions test, such as the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT).
Assessments of writing competence from non-CSU campuses will be evaluated by the GWAR Coordinator as a fulfillment of the GWAR, on an articulation basis if possible or on a case-by-case basis if necessary.

Students with degrees from non-CSU campuses must either provide of meeting the requirement with adequate scores on a CSULB-approved standardized test or attempt to satisfy the GWAR by the end of their first semester of matriculation at CSULB.

## Courses (CBA)

## LOWER DIVISION

130. Current Concepts of Business (3)

Overview of CBA options, including professional preparation and employment opportunities. Orientation to current CBA programs and requirements. Development of understanding of contemporary business issues, including introduction to major business functions.
Strongly recommended for students interested in business careers.

## UPPER DIVISION

## 300. International Business (3)

Introduction to nature, dimensions, and environment of international business. Emphasis on business functions, practices, and decisions as influenced by cultural, political, economic, social, and institutional factors in various parts of world. Diffusion of information technology. Letter grade only (A-F).

## 397. Junior Honors Seminar

Prerequisite: Acceptance into the CBA Honors Program.
Empirical, theoretical, and applied research methodology: fundamentals and advanced topics. Visits by faculty and business professionals focus on current issues and methods for solving business problems.
Literature review and written proposal required for Honors Thesis. Letter grade only (A-F).
4001. Business Ethics (3)

Prerequisites: Completion of the Foundation, at least one Explorations course.
Various types of ethical dilemmas that take place in business organizations and acquire concepts and tools needed to manage these complex value conflicts for the well being of individuals, organizations, and society.
Same course as PHIL 400I. Letter grade only (A-F).

## 493. Business Internship (1-3)

Prerequisites: Classified business major and Instructor consent, IS 301.

Qualifying students placed in career-related paid assignments in private or public agencies or businesses. Organized plan utilizing series of seminars and learning agreements required with selected reading and writing assignments.
A minimum of 120 hours paid experience per semester is required. May be repeated to a maximum of 6 units.

## 495. Selected Topics (3)

Prerequisite: Consent of instructor, IS 301.
Topics of current interest in business administration selected for intensive study.
May be repeated to a maximum of 6 units in different semesters. Topics will be announced in the Schedule of Classes.

## 497. Senior Honors Seminar I

Prerequisites: CBA 397, IS 301.
Continuation of CBA 397, special emphasis on sampling, instrumentation, and data analysis. Topics covered may vary year-to-year. Perform majority of data collection and preliminary data analysis for honors thesis.
Letter grade only (A-F).

## 499. Senior Honors Seminar II (3)

Prerequisite: CBA 497, IS 301.
Completion of Honors Thesis. Data analysis for thesis completed, findings interpreted relative to research hypotheses; final report is submitted for approval. Attention given to preparing manuscripts for publication, academic review process, and making professional presentations. Learning by illustration and application via completion of Honors Thesis and visits by faculty and business leaders.
Letter grade only (A-F).

## Courses (GBA)

## GRADUATE LEVEL

695. Selected Topics (1-3)

Prerequisite: MBA standing.
Topics change each offering and in the absence of significant duplication.
Topics to be announced in the Schedule of Classes. Course may be repeated to a maximum of 3 units. Letter grade only (A-F).

## 698. Thesis (2-4)

Prerequisite: GBA 601. Planning, preparation, and completion of a thesis in business administration.

## 699. Integrated Analysis (3)

Prerequisites: Student shall have completed all 2nd year core classes. Classified MBA status in the last semester or within six units of completion of the 33-unit minimum graduate program and advanced to candidacy.
Study of wide range of business problems and formulation of solutions. Integration of knowledge from all functional areas of business and its application to complex business problems arising out of changing technology, competitive market conditions, social changes and governmental actions.
A grade of " $B$ " or better is required for successful completion. Serves as required terminal examination for College of Business Administration graduate candidates. Project is required. Students must file application for entry into GBA 699 no later than the fourth week of instruction in the semester preceding the one in which GBA 699 will be taken. Application forms are available in the MBA Office. Letter grade only (A-F).

## Courses (BLAW)

## LOWER DIVISION

## 220. Introduction to Law and Business Transactions (3)

Law and the American legal system in today's business world. Contracts, sales, and commercial paper. Examination of the role and function of the judiciary, elements of civil and criminal lawsuits, and other emerging areas of the law, including alternative dispute resolution.
Letter grade only (A-F).

## UPPER DIVISION

320. Legal and Regulatory Environment of Business (3)

Prerequisite: BLAW 220.
Forms of business organizations, employment law, securities law, environmental law, anti-trust issues, and international transactions. Social, cultural and economic influences on domestic and multinational corporations. Exploration of relationship of government to business. Introduction to business ethics.
Letter grade only (A-F).

## 424. International Legal Environment of Business (3)

Prerequisite: BLAW 320, IS 301.
Subsidiaries, joint ventures and other forms of international business operations. Effects of treaties, laws and policies of governments on business operations. Resolution of business and investment disputes, protection of property rights, the financing and taxing of international operations, and ethical issues.
Letter grade only (A-F).

## 425. Legal Aspects of Real Estate (3)

Prerequisite: FIN 340, IS 301.
Basic principles of real estate law as related to conveyances, titles, private and public restrictions on the use of land, escrows, community property and financial transactions.
Letter grade only (A-F).

## GRADUATE PREREQUISITE

## 520. Legal, Regulatory, and Ethical Environment of

 Business (3)Prerequisite: MBA standing required.
Legal and regulatory environment in which managers must operate. Constitutional and judicial structures for resolving disputes, effect of governmental and political policies, and liability encountered by business in various defined areas of substantive law. Ethical issues faced by business.
Letter grade only (A-F).

## GRADUATE LEVEL

## 524. International Legal Environment of Business (3)

Prerequisite: BLAW 520.
A study of the international legal environment in which multinational firms operate. Topics include treaties and laws, government policies, resolution of legal disputes, regulation of competition, enforcement of property rights and issues involving ethical responsibilities.
Letter grade only (A-F).

## 624. Cyberlaw (3)

E-commerce and public policy issues. Law and the globalized e-commerce environment. Legal, ethical, international and political aspects of technology as it relates to business. Jurisdiction, intellectual property, electronic payment systems and contracting, online securities offerings, telecommunications mergers and acquisitions, security.
Letter grade only (A-F).

## COLLEGE OF EDUCATION

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EDAD, EDSP, COUN, ETEC, and ELIB) (562/985-4517)
Simon Kim, Chair
Liberal Studies (L/ST) (562/985-4228)
Daniel J. O'Connor, Chair
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Catherine DuCharme, Chair

The College of Education (CED) prepares students for professional careers in the field of public and private education through baccalaureate, certificate, credential and Master's programs offered in three departments: Liberal Studies, Teacher Education, and Educational Psychology, Administration and Counseling.

The College of Education's primary purpose is to create and nurture a learning and teaching community committed to excellence in education. We fulfill our purpose by preparing professionals to be socially responsible leaders, engaging in research and scholarly activity which informs and improves practice, valuing diversity as we work to achieve common goals, serving and collaborating with schools, agencies, the community and each other, and engaging in an inclusive process for planning, communicating, working, and assessing progress toward our goals.

The College provides undergraduate and graduate studies in education. It offers specific curricula focusing on the preparation of personnel for teaching and educational service in the pre-school, elementary, middle and high schools, community colleges, adult programs, and other educational agencies. In addition to two certificate programs and a variety of teaching and service credentials, the College offers a Bachelor of Arts degree in Liberal Studies, a Master of Arts in Education degree with various options, Master of Science degrees in special education and counseling, and an Ed.D. degree in educational administration and leadership through a joint doctoral program with the University of California, Irvine. Descriptions that include prerequisites and requirements for each credential, certificate, and degree program are listed in this catalog in the department that houses the particular program.

College programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the California Commission on Teacher Credentialing (CCTC).

Please visit the college website at www.ced.csulb.edu for detailed information on departments, programs, centers, and offices.

## Credential Programs

Public school teaching and service credentials in California are regulated by the state legislature and administered by the California Commission on Teacher Credentialing (CCTC). Credential programs offered at CSULB have been developed to meet current requirements, which are complex and continually reviewed and changed by legislative action. Candidates for all credentials must meet legal requirements in effect when completing credential programs. It is the responsibility of the student to be familiar with the program requirements contained in this catalog and to obtain current information from departments offering individual programs. For information regarding admission, academic requirements, and fieldwork, contact
the specific credential program coordinator. For information on state credential laws and regulations, pending changes, and new legislation, contact the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

## Basic Teaching Credentials

There are three types of basic teaching credentials: Multiple Subject, Single Subject, and Education Specialist.

The Preliminary Multiple Subject Credential authorizes the holder to teach all subjects in a self-contained classroom, generally in an elementary school. A teacher authorized for multiple subject instruction may be assigned to teach in any self-contained classroom - pre-school, kindergarten, grades 1 through 12, or in classes for adults. In addition to a sequence of professional preparation courses and student teaching, candidates for the Multiple Subject Credential must demonstrate subject matter competence by passing the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects) as a condition of entry to the program. With additional course work, students in the Preliminary Multiple Subject Credential Program may earn a Bilingual Cross Cultural and Academic Development (BCLAD) authorization in Spanish, Cambodian (Khmer), Chinese (Mandarin or Cantonese), Korean, and Vietnamese. For detailed information on the Multiple Subject Credential Program, refer to the Teacher Education Department section in this catalog or visit the Teacher Preparation Advising Center (ED1-67; 562/9859259).

One of the pathways to a Multiple Subject credential is the Integrated Teacher Education Program (ITEP). ITEP combines undergraduate study of academic subjects aligned to the California standards for the K-8 curriculum with professional preparation courses, field experiences, and student teaching. ITEP students may also complete the requirements for the Education Specialist Credential or Bilingual Cross Cultural and Academic Development (BCLAD) Credential along with those for the Multiple Subject Credential and receive dual authorization. ITEP students are required to demonstrate subject matter competence by passing the CSET: Multiple Subjects exam as a condition of advancement to student teaching. For detailed information on the ITEP program, refer to the Liberal Studies section of this catalog or contact the Liberal Studies Department (LIBE 127; 562/985-4228)

The Single Subject Credential authorizes the holder to teach a specified subject. A teacher authorized for single subject instruction may be assigned to teach this subject at any grade level - pre-school, kindergarten, grades 1 through 12, or in classes for adults. In practice, most teachers with a single subject authorization teach departmentalized classes in middle, junior high or senior high schools. CSULB offers Commission on Teacher Credentialing-approved Subject Matter Programs in Art, Biological Sciences, Chemistry, English, Foreign Language (French, German, Japanese, Latin, Spanish), Geosciences, Health Science, Home Economics, Mathematics, Music, Physical Education, Physics, and Social Science. For detailed information on the Single Subject Credential Program, refer to the Single Subject Teacher Education section in this catalog or visit the Teacher Preparation Advising Center (ED1-67).

The Education Specialist Credential authorizes a candidate to teach in a special education assignment with students with special needs. This K-12 credential certifies individuals to work as a special day class teacher, inclusion support teacher, or as a resource specialist. In addition to a sequence of professional preparation courses and student teaching, candidates must demonstrate subject matter competence by passing all three sub-tests of the California Subject Examinations for Teachers: Multiple Subjects, or the appropriate CSET exam in Math, Science, or Language Art as a condition of entry to the program. Another pathway to the Education Specialist Credential is the Integrated Teacher Education Program (ITEP), through which students can earn dual authorization to teach Multiple Subjects and Special Education. For detailed information on the Education Specialist Credential Program, refer to the Educational Psychology, Administration and Counseling section in this catalog or visit the Teacher Preparation Advising Center (ED1-67).

Elementary and secondary teachers who wish to diversify their teaching authorizations may do so by fulfilling specific requirements. Further information is available in the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

## Obtaining the Preliminary Credential

Requirements for the Preliminary and Professional Clear credentials are set by the Commission on Teacher Credentialing in accordance with state law. Requirements for the Preliminary credential include:

1. a bachelor's degree from an accredited institution,
2. an approved professional preparation program, including the teaching of reading and student teaching,
3. verification of subject matter competence (coursework or examination),
4. passage of CBEST (California Basic Educational Skills Test),
5. completion of an approved course or examination in the U.S. Constitution,
6. demonstration of Level I computer technology proficiency (course or exam), and
7. for Multiple Subject and Education Specialist candidates, passage of the Reading Instruction Competence Assessment (RICA).
Graduates of CSULB credential programs meet
Commission and program requirements and are recommended for the Preliminary credential by the College.

## Obtaining the Professional Clear Credential

The Preliminary credential is valid for five years from the date of issuance and is not renewable. During the first five years of teaching, teachers must complete one of the following options to qualify for the Professional Clear credential:

1. a CCTC-accredited Induction Program through the district of employment; or
2. a Beginning Teacher Support and Assessment (BTSA) Program and the four statutory requirements of advanced work in health education, teaching special populations, teaching English learners, and advanced technology (if advanced work in the four statutory areas is met through courses taken at a college or university, the courses must be taken after completion of the Preliminary credential); or
3. if a BTSA or Induction Program is not available, and with permission from their employer, a candidate may enter a

Fifth Year Program at a college or university. The Fifth Year Program requires 30 units of post-baccalaureate study and advanced course work in the four statutory areas of health education, teaching special populations, teaching English learners, and advanced technology. The advanced level courses in the four statutory areas must be taken after completion of the Preliminary credential.
For information on the Professional Clear credential contact the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

## Entry Levels for Basic Credential Programs

Students may begin credential programs at five different levels:

1. Qualified candidates who wish to earn the Multiple Subject Credential may begin the Integrated Teacher Education Program (ITEP) in the Liberal Studies Department as firstterm freshmen. This program leads to the Multiple Subject Credential in four and a half years of full time, accelerated study.
2. Qualified transfer students from partner community colleges who wish to earn the Multiple Subject Credential and who have started the Integrated Teacher Education Program (ITEP) at their community college may continue the program as transfer students. This program leads to the Multiple Subject Credential in four and a half years of full time, accelerated study.
3. Junior level - With a carefully planned program, credential program courses may be taken as electives as early as the first semester of the junior year with completion of the program coming as early as the first semester after graduation.
4. Senior level - Credential program courses may be taken during the senior year as electives. The remaining credential courses and student teaching are then completed at the post-baccalaureate level. (Note: By petition only, up to twelve units of course work taken in the final undergraduate semester -- and not needed to meet major or degree requirements -- may be counted as postgraduate credit toward the Professional Clear credential and/or as postgraduate credit on a district salary ladder. Information is available in the Teacher Preparation Advising Center [ED1-67]).
5. Graduate level - The entire credential program may be completed at the post-baccalaureate level.

## Application to Credential Programs

Information on application to basic credential programs is available in the Teacher Preparation Advising Center (ED167). Students currently not enrolled in the University must file an application for admission to the University (www. csumentor.edu) as well as an application to the specific program. Note: Some programs have established application periods each year that are separate from the University application periods and process.

## Application for Student Teaching

Candidates for student teaching for the summer or fall term of any year must apply by March 1 . Spring candidates must apply by October 1. Student Teaching application deadlines are firm.

Candidates for student teaching must attend a Student Teaching Application Meeting. Which is the only venue
for distributing applications. Dates and times for each application period are posted on bulletin boards and program websites.

## Appeal Process

A student has the right to address an appeal to the appropriate committee regarding any policy related to admission and continuation in a teacher preparation program. Petition forms and assistance are available in the Teacher Preparation Advising Center (ED1-67).

## Specialist Credentials

CSULB offers programs leading to a Reading Certificate and to a Reading and Language Arts Specialist Credential. Both require a valid basic teaching credential. (Note: the Adapted Physical Education Credential is available through the Department of Kinesiology. Refer to the College of Health and Human Services section of this catalog.)

## Service Credentials

Service credential programs are available in the following areas: Preliminary Administrative Services, Professional Administrative Services, Library Media Teacher Services, School Counseling, and School Psychology. Both the Preliminary Administrative Services and the Library Media Teacher credentials require a valid basic teaching credential. (Note: Designated Subjects, Health Services [school nurse], Clinical Rehabilitative Services [language, speech, and hearing], Clinical Rehabilitative Services [audiology], and School Social Work, Child Welfare and Attendance credentials are also available at CSULB. Refer to the College of Health and Human Services section of this catalog.)

## Degree Programs

## Bachelor's Degree Programs

The college offers a bachelor's degree in Liberal Studies through the Liberal Studies Department. The Liberal Studies Track I major is a cross-disciplinary liberal arts program of study. Track I meets both the General Education and major requirements of the university. This major prepares students in the broad content necessary for successful elementary school teaching. Track I students often begin taking credential program courses in the junior or senior year, and complete the credential program in the first year after graduating. The Integrated Teacher Preparation Program (ITEP) is a Liberal Studies major that combines a broad liberal arts course of study with teacher preparation courses. ITEP students graduate with both a BA degree and a Preliminary Multiple Subject Teaching Credential. For more information, refer to the Liberal Studies Department section of this catalog.

## Master's Degree Programs

Master's degree programs are offered in two departments within the College. General procedures, policies, requirements, and applications for the master's degrees are available from the Graduate Studies and Research Office, ED1-7, and are listed following each option and specialization in the appropriate section of the
catalog. In order to pursue a master's degree, students must submit applications to both the University and the program.

The Educational Psychology, Administration, and Counseling Department offers a Master of Science degree in Counseling, with Options in Marriage and Family Therapy, School Counseling, Student Development in Higher Education, Career Counseling, and Vocational Rehabilitation; and a Master of Science degree in Special Education. (Note: discontinuance is under consideration for the MS Options in Career Counseling and Vocational Rehabilitation.) The Master of Arts in Education degree is offered with Options in Educational Administration, Educational Psychology, Educational Technology, School Librarianship, and Social and Multicultural Foundations of Education.

The Teacher Education Department offers two Options in the Master of Arts in Education: Elementary Education and Secondary Education. The Elementary Education Option offers three specializations: Curriculum and Instruction, Early Childhood Education, and Reading and Language Arts. The Secondary Education Option has two specializations: Curriculum and Instruction and Reading and Language Arts.

To be considered for admission to a master's degree program, students must submit a program application, official transcripts, test scores (if applicable), and any additional program requirements to the Office of Graduate Studies and Research in the College of Education. Program applications may vary; please check the individual program for additional requirements. Program applications may be obtained from the Office of Graduate Studies and Research (ED1-7; 562/985-8476; www.ced.csulb.edu/graduate). Please note: Not all programs admit students for the spring semester. For additional program information and contact numbers for advisors, visit the College of Education website at www.ced.csulb.edu and navigate to the appropriate program.

All master's degree candidates in education are required either to complete a thesis or project or take a comprehensive examination according to the requirements of the degree, degree option, or degree option specialization. Application for enrollment for thesis, project, or comprehensive examination must be made by October 1 for the spring semester or by March 1 for the fall semester.

## University Requirements for Admission to Master's Programs

To be eligible for conditional admission to the respective College of Education master's degree programs, applicants must meet the following grade point average (GPA) requirements:

Clear Conditional Admission ---- Applicants must have a GPA of 2.85 or higher in the last 60 semester or 90 quarter units of course work taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.

Conditional Admission - Applicants who meet all requirements for clear conditional admission except one program requirement may nevertheless qualify for clear conditional admission by earning a minimum GPA of 3.00 on 12 units of approved course work planned by the student
and advisor. Applicants who fail to meet more than one program admission requirement must be recommended by faculty as a promising candidate in order to be conditionally admitted.
NOTE: Individual programs retain the right to determine who is admitted to the program. Meeting the University requirements for clear conditional or conditional admission does not guarantee acceptance to the program.
Clear conditional admission to the CED is required for enrollment in 500 and 600 level courses.

## Advancement to Candidacy

To be advanced to candidacy for a graduate degree, a candidate must:

1. Fulfill the Graduation Writing Assessment Requirement (GWAR);
2. Satisfy all general University requirements for advancement to candidacy, as well as the specific requirements for the degree option and specialization;
3. Complete all prerequisites and testing, file for an approved program of studies with the College of Education Office of Graduate Studies and Research, and be currently enrolled;
4. Resolve all incomplete grades (to either "complete" or "default" grade).
Note:The Graduate Record Examination (GRE) is required for the MA in Education, Options in Educational Psychology and Educational Technology.

## Degree and Credential Programs at a Glance

Bachelor of Arts in Liberal Studies
Master of Arts in Education with Options in:

- Educational Administration
- Educational Psychology
- Educational Technology
- Elementary Education Specialization in Curriculum and Instruction Specialization in Early Childhood Education Specialization in Reading and Language Arts
- School Librarianship
- Secondary Education Specialization in Curriculum and Instruction Specialization in Reading and Language Arts
- Social and Multicultural Foundations of Education Specialization in International/Global Education Specialization in Language, Literacy, and Culture Specialization in Race, Class, and Gender Studies Special Concentration
Master of Science in Special Education
Master of Science in Counseling with Options in:
Career Counseling (temporarily suspended for new admissions)
Marriage and Family Therapy (MFT)
School Counseling
Student Development in Higher Education Vocational Rehabilitation Counseling (temporarily suspended for new admissions)
Ed.D. in Educational Administration and Leadership (awarded jointly with the University of California, Irvine)


## Teaching Credentials

## Elementary:

- Preliminary Multiple Subject Credential Program
- Preliminary Multiple Subject Internship Program
- Preliminary Multiple Subject Credential Program with Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis
- Integrated Teacher Education Program (ITEP)

Secondary:

- Single Subject Credential Program

Art, English (Emphasis in Black Studies, Comparative Literature, Creative Writing, Journalism, Language \& Linguistics, Literacy \& Composition, Literature, Speech, Theatre Arts), Languages Other than English (French, German, Italian, Japanese, Latin, Spanish), Health Science, Home Economics, Life Science, Mathematics, Music, Physical Education (Adapted P.E., Elementary School, Secondary School), Physical Science (Chemistry, Earth Science, Physics), Social Science (covering Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology)

- Single Subject Intern Credential Program

Specialist Teaching Credentials

- Reading and Language Arts
- Education Specialist Credential Program, Level I: Mild/Moderate Disabilities
- Education Specialist Internship Program, Level I: Mild/Moderate Disabilities
- Education Specialist Credential Program, Level I: Moderate/Severe Disabilities
- Education Specialist Internship Program, Level I: Moderate/Severe Disabilities
- Education Specialist Credential Program, Level II: Mild/Moderate Disabilities
- Education Specialist Internship Program, Level II: Mild/Moderate Disabilities
- Education Specialist Credential Program, Level II: Moderate/Severe Disabilities
-Education Specialist Internship Program, Level II: Moderate/Severe Disabilities


## Services Credentials

- Preliminary Administrative
- Professional Administrative
- Library Media Teacher
- School Counseling
- School Counseling Internship
- School Psychology
- School Psychology Internship


## Graduate Certificates

- Career Guidance Specialist
(discontinuance under consideration)
- Community College


## Other Credentials and Authorizations

Please refer to the College of Health and Human
Services section of this catalog for credential programs in:

- Adapted Physical Education
- Designated Subjects
- Health Services (School Nurse)
- Clinical Rehabilitative Services - Language, Speech, and Hearing
- Clinical Rehabilitative Services - Audiology
- School Social Work, Child Welfare, \& Attendance


## College Offices and Services

## Scholarships

Scholarships are available to undergraduate teacher track, credential, and master's students in the College of Education. Scholarship applications are available the first week in November in the Office of the Dean, ED1-5, and should be completed and submitted by the second Friday in February. Scholarship recipients are identified by the fourth week of April and the scholarship funds are awarded for the beginning of the next academic year (i.e., all students applying February 2007 will receive the funding in the academic year beginning in August 2007).

## Educational Career Services (ECS)

Educational Career Services assists students and alumni in their search for professional positions in the field of education. ECS serves teacher candidates and also provides services to students and alumni seeking positions as school administrators, school counselors, school psychologists, college instructors, school librarians, and other positions in education. Services offered by ECS include: maintaining links to web-based job banks, posting job vacancy notices, sponsoring job fairs, conducting job search seminars, providing individual advisement, and providing information about professional educational opportunities. Appointments may be scheduled with an Educational Career counselor to obtain information about the current job market in education or to receive assistance with resume writing or job interview skills. ECS is located in ED2-168, telephone (562) 985-5772.

## Credential Center (CC)

The Credential Center assists students in pursuit of their credential and educational goals. Center staff serve as a campus liaison to the State of California Commission on Teacher Credentialing (CCTC), and coordinate the dissemination of credential information to University staff, faculty, students and the general public. The Credential Center is responsible for the evaluation, verification, and recommendation of all initial elementary teaching, secondary teaching, specialist, and service credentials. The Center serves as a University resource for credential requirements and regulations, which includes advisement and program admission for the Professional Clear Single Subject and Multiple Subject Credential Programs (Fifth-Year Programs), advisement for out-of-state and out-of-country credential applicants, and assistance to credentialed teachers seeking renewal information. The Center is located in ED1-42, telephone (562) 985-4109, email credentials@csulb.edu.

## Service Experiences for ReVitalizing Education (SERVE)

The SERVE Program creates an opportunity for students at the undergraduate level, in particular those who are considering careers in K-12 education, to learn about the realities of urban classrooms and the needs of the diverse K -12 student population. SERVE interns work with students individually and in small groups to pro-vide academic support and encourage personal growth. Through this involvement CSULB students assess their career goals and provide direct service to students and teachers in grades K12 and to their communities. SERVE is located in ED1-17, telephone (562) 985-5499.

## Educational Psychology Clinic

The Educational Psychology Clinic serves as a primary training site for the School Psychology, School Counseling, and Reading/Language Arts Specialist Credential Programs, while providing comprehensive educational and psychological services to children at a moderate cost. Services at the Clinic are provided by graduate students under the supervision of faculty in the College of Education. Specific services provided at the clinic include psychoeducational assessments, counseling and tutoring. Administrative fees for clinical services are reduced for CSULB students and those with financial need. The Educational Psychology Clinic is located in ED2-155, telephone (562) 985-4991, website www.ced.csulb.edu/ edpac/clinic.

## Center for Language Minority Education and Research (CLMER)

The Center for Language Minority Education and Research (CLMER) engages in a wide range of services, projects and research initiatives to promote equity, excellence and justice in schools and society, with a focus on traditionally underserved and underrepresented children, families and communities. Services, projects and research initiatives align with a vision for an inclusive, democratic society and promote evidence- and researchbased approaches to relevant human, organizational and educational change. CLMER is located in ED1-18, telephone (562) 985-5806.

## Center for Collaboration in Education (CCE)

The Center for Collaboration in Education coordinates information on the various university/community partnerships. These partnerships are focused on the renewal of the education profession and the pursuit of a high quality seamless public education/higher education pathway.

## COLLEGE OF ENGINEERING

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Hamid Hefazi, Chair
COE Phone Directory
(562) 985-5121

COE FAX
(562) 985-7561

## Website

http://www.csulb.edu/coe

The College of Engineering offers four-year curricula leading to Bachelor of Science degrees in the disciplines of engineering, computer science, and engineering technology as well as master's and Ph.D. degree programs. The B.S. programs provide broad education and training for entry to the professions and for continuing academic work toward advanced degrees. Master of Science degrees are offered in aerospace, civil, computer, electrical and mechanical engineering, and in computer science. The Master of Science in Engineering is also offered in interdisciplinary areas. The Ph.D. in Engineering and Industrial Applied Mathematics is offered jointly with The Claremont Graduate University. Undergraduate programs provide opportunities to specialize in the areas of aerospace, biomedical, chemical, civil, computer, electrical, industrial- management, manufacturing, materials and mechanical. The Bachelor's programs in engineering, computer science and engineering technology are accredited by the appropriate accreditation commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 - telephone: 410/ 347-7700; website: http://www.abet.org. The aerospace, chemical, civil, computer, electrical and mechanical engineering programs are accredited by the Engineering Accreditation Commission (EAC) of ABET. The computer science program is accredited by the Computing Accreditation Commission (CAC) of ABET. The computer, electronics and manufacturing technology programs are accredited by the Technology Accreditation Commission (TAC) of ABET. (See detailed listing of the accredited programs on the next page). Several certificate programs are also offered. Evening sections of most of the regular courses are offered to help the working students.

## Engineering Facilities

The engineering and engineering technology buildings house the College of Engineering in a complex of several adjacent buildings, including a modern six-story Engineering and Computer Science (ECS) building, providing modern laboratories and offices for faculty. The buildings feature advanced and comprehensive engineering, computer science, and technology facilities, totalling over 130,000 square feet of laboratory space.

## Engineering Advisory and Development Councils

The College of Engineering has Advisory and Development Councils, one for the entire college, one for each of the five departments, and one for the MESA program. These councils consist of outstanding engineers and executives from industry and government in Southern California. Their function is to form a liaison between the University and industry and to keep the administration and faculty informed of modern engineering practices. This helps to ensure that the curricula are kept up-to-date. They also advise on placement opportunities before and after graduation.

## Programs at a Glance

## ABET Accreditation

The Bachelor of Science degrees followed by an asterisk (*) are accredited by EAC, CSAC or TAC of the Accreditation Board for Engineering and Technology (ABET) as appropriate.

## Baccalaureate Degrees

B.S. in Aerospace Engineering*
B.S. in Chemical Engineering *
B.S. in Civil Engineering *
B.S. in Computer Engineering*
B.S. in Computer Engineering Technology*
B.S. in Computer Science*
B.S. in Construction Engineering Management
B.S. in Electrical Engineering *
B.S. in Electronics Engineering Technology
B.S. in Engineering

Option in Audio Engineering
Option in Biomedical and Clinical Engineering
Option in Industrial-Management Engineering
Option in Materials Engineering
Option in Theme Park Engineering
B.S. in Engineering Technology

Option in Environmental Technology
Option in Technology and Engineering Education
B.S. in Manufacturing Engineering Technology *
B.S. in Mechanical Engineering *

Minors
Minor in Computer Science
Minor in Computer Science Applications
Minor in Environmental Engineering
Minor in Web and Technology Literacy

## Graduate Degrees

M.S. in Aerospace Engineering
M.S. in Civil Engineering
M.S. in Computer Science

Option in Computer Engineering
Option in Computer Science
M.S. in Electrical Engineering
M.S. in Engineering (Interdisciplinary)
M.S. in Engineering Management (on-line) Jointly with CSUDH
M.S. in Mechanical Engineering

Civil Engineer (professional degree)
Ph.D. in Engineering and Industrial Applied Mathematics (jointly with The Claremont Graduate University) For detailed descriptions, see listings for Chemical Engineering, Civil Engineering, Computer Engineering and Computer Science, Electrical Engineering, Engineering Technology Programs, and Mechanical and Aerospace Engineering.

Students should submit applications early in August for the following Spring Semester and November for the following Fall semester.

## Certificate Programs

Certificate in Heating, Ventilating and Air-Condititioning Engineering (MAE)
Certificate in Waste Engineering and Management (CE)
Certificate in Energy Conversion and Power Systems
Engineering (MAE and EE)
Certificate for Industrial Plastics Processing and Design (MAE. and ChE)
Certificate in Facilities Operations (Civil Engineering)
Certificate in Safety Operations (Chemical Engineering)
Certificate in Aerospace Manufacturing (MAE)
Certificate in Systems Engineering (MAE)
Certificate in Web and Technology Literacy (CECS)

## Mathematics, Engineering, Science and Achievement (MESA) Center

The MESA Center is a program that serves low income and educationally disadvantaged students at the pre-college and college levels. The program is funded by the State of California and also receives program donations from private industry. The MESA Center is comprised of two distinct programs with operations based in the College of Engineering, the MESA Schools Program (MSP) and the MESA Engineering Program (MEP). The MESA Schools Program (MSP) partners with middle and high schools in the Los Angeles basin area to prepare students to attend college. MSP provides academic support services to over eighteen hundred pre-college students with the primary objective of increasing future enrollment at the university level in the disciplines of mathematics, engineering and science. The MESA Engineering Program (MEP) provides non-remedial academic support services to matriculated college students. The major objectives of MEP are to support the recruitment, retention and graduation of a select campus student population. The MESA Engineering Advisory and Development Council (MEADC) includes a membership of industry representatives from local area businesses with an interest in promoting the educational experience of low income and underrepresented students.

## Academic Standards

## Preparation for Admission to the College of Engineering

The high school student planning to enter engineering, engineering technology, or computer science is advised to pursue a program with courses in biology, physics, chemistry, advanced algebra, and trigonometry. In addition, the general requirements for admission to the University must be satisfied. Deficiencies in some of the above areas may result in an extension of the time required to complete a program in engineering, technology, or computer science. Full-time students can complete any baccalaureate degree in engineering, engineering technology, or computer science in four years.

The curricula are also designed to accommodate students transferring from other colleges such as the community colleges and liberal arts colleges. Full-time students who complete two years at a community college can complete the B.S. degrees in two years. Transfer
students should note and follow, where possible, the appropriate curriculum as outlined in later sections. None of the COE study programs are impacted. Only general admission requirements of the University apply and must be met.

## General Academic Requirements

In addition to technical knowledge, skills and training, the College of Engineering values good communication skills. The University in its General Education courses provides the basic communication skills and measures them with the Graduation Writing Assessment Requirement. Students are advised that all College of Engineering courses and student course work require not only correct analysis, competent design and professional presentation but also clear and concise written and oral communication in English. While individual specific course requirements vary depending on the nature of the course, good communication skills, both in written and oral reports, are expected of all students and will normally constitute a portion of the student's grade.

A grade of " $C$ " or better must be achieved in prerequisites for courses required of engineering majors. ENGL 100 or equivalent is a prerequisite to upper division laboratory courses.

Admission to any one of the graduate degree programs in the College of Engineering normally requires a minimum GPA of 2.5 in the last 60 units taken.

A student must fulfill the Graduation Writing Assessment Requirement (GWAR) before qualifying for any degree.

## Letter Grade Policy

Letter grades ("C" or better) are required for prerequisites for required courses of Engineering, Computer Science, and Engineering Technology majors.

Required English, Speech, and Upper Division Interdisciplinary (IC) courses must be taken for a Letter Grade, not Credit/No Credit.

## Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in a community college or another college to meet curricular requirements while enrolled as an undergraduate in the College of Engineering must petition the appropriate department for prior approval to enroll in specific courses. This policy is for either concurrent enrollment or summer enrollment. University policy must also be complied with. (See "Concurrent Enrollment" and "Transfer of Undergraduate Credit" in this Catalog) Courses not receiving prior approval may not be accepted for credit by the department.

## Dual Degree Program

Students wishing to combine an engineering degree with one in business, education, fine arts, humanities or the sciences may enter the Dual Degree Program. The College of Engineering at CSULB has agreements with other Colleges within the University and with other institutions which allow students to do this. After three years at the first institution, students transfer to CSULB as juniors to complete the two final years of engineering study. At the end of the first year at CSULB, students who have completed all of the requirements for their first degree are awarded
those degrees by the appropriate College or institution. At the end of their fifth year, students who have completed all engineering requirements receive their engineering degrees. As an option, students may choose to complete both degrees simultaneously.

## Course Availability

Full-time students without deficiencies in the principal College of Engineering programs can comfortably complete their degree requirements in four years, or in two years after completing two years at a community college. Most of the required courses are offered in multiple sections every semester. In addition, many required courses are also offered during Summer Sessions.

## Requirements for the ABET Accredited Degree Programs

Students working for an ABET accredited degree will meet with an academic advisor in their department as early as possible to make themselves fully aware of the ABET requirements, not only in General Education as outlined above, but also in other areas, such as math/science requirements. Requirements are subject to change and current requirements for all programs are posted at http:// www.abet.org.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Engineering

## Option in Audio Engineering (code COE_BS02) (127 units)

This option is designed to train students for work in the audio engineering industry. The curriculum in the College of the Arts will show students in the program how the arts and entertainment industry uses modern technology in the recording, processing and creation of sound. The curriculum in the College of Engineering will teach students how to analyze and design the electronic and computer components used in the arts and entertainment industry.

As this option is not ABET accredited, students are urged to either take a second major in Computer Engineering (follow the Computer Engineering Track) or Electrical Engineering (follow the Electrical Engineering Track)

## Requirements

## Computer Engineering Track

Lower Division: BIOL 207, PHYS 151, MATH 122, 222, MUS 190, EE 210, 210L, CECS 174, 201, 228, 261, 274.

Upper Division: MATH 323, 370A, 380, ENGR340, EE 386, 486, CECS 301, 311, 326, 346, 347, 360, 447, 460A, 497, three courses from: FEA 307, THEA 449, EE 428, MUS 370, MUS 455, MUS456; plus an approved technical elective.

## Electrical Engineering Track

Lower Division: BIOL 207, PHYS 151, MATH 122, 123, 224, MUS 190, ENGR 202, CECS 174, EE 201, 210, 210L, 211, 211L.

Upper Division: MATH 370A, ENGR 340, CE 370, EE 310, 330, 346, 347, 370, 370L, 382, 386, 430, 486, 462 or 464 , and 489 or 490 , three courses from: FEA 307, THEA 449, EE 428, MUS 370, MUS 455, MUS456; plus an approved technical elective.

## Option in Theme Park Engineering (code COE_BS03) (132 units)

This option is designed to prepare students to work as engineers in theme parks or amusement facilities, and the industries that support them. The program of study includes courses primarily from Electrical Engineering, with additional training from the Civil and Mechanical Engineering Departments, and covers topics in electrical power, and electrical, mechanical, hydraulic, and pneumatic control.

As this option is not ABET accredited, students are urged to also obtain an ABET accredited second major in Electrical Engineering.

## Requirements

BIOL 207, CHEM 111A, MATH 122, 123, 224, 370A, PHYS 151, CECS 174, ENGR 202, EE 201, 210, 210L, 211, 211L, 310, 330. Each of the foregoing courses must be passed with a grade of "C" or better. Other required courses are CE 335, 370, EE 346, 347, 350, 350L, 370, 370L, 450, $452,453,490$, MAE 172, 330; MAE 438 or 490 B or 490 E ; ET 365, 365L, plus an approved technical elective.

## Minor in Environmental Engineering (code COE_UM01)

This interdisciplinary Minor in Environmental Engineering is designed for undergraduates from various engineering and science backgrounds who are interested in applying engineering approaches to environmental issues. Coursework in the minor focuses on engineering solutions to problems in preserving the quality of air, water, and soil by developing procedures and designing processes, consistent with current government regulation, to improve the environment and prevent pollution.

## Requirements

A minimum of 6 units selected from the following core: CH E 475 or C E 364; CH E 455 or C E 469. Additional courses to complete the 18-unit minor may be selected from: CH E 415, 445, 465, 485; C E 466; MAE 490C, and E T 400/L, 409F, 449/L, 476, 485.

Most of the courses in the minor require some background in engineering and/or chemistry. Upper division students majoring in Biology, Chemistry, Chemical Engineering, Civil Engineering, or Mechanical Engineering may have sufficient background to select from the above choices without needing additional prerequisites. Those majoring in other branches of science and engineering may need several additional courses in engineering and/or chemistry to meet prerequisite requirements of courses in this minor. All prerequisites to the courses in the minor must be completed with a grade of " C " or better.

## GRADUATE PROGRAMS

Graduate Program Director: Sandra J. Cynar

## Master of Science in Engineering (code COE_MS01)

The College of Engineering offers graduate study programs for the Master of Science in Engineering degree. Typical tasks and responsibilities undertaken by students in the curriculum would not fall within one of the traditional specialties in engineering, e.g. aerospace, chemical, civil, electrical and mechanical engineering, or computer science and engineering. The student may pursue an interdisciplinary program, approved by a Graduate Advisor, by selecting courses from the various departments of engineering. Additional information concerning the programs, special facilities, laboratories and research possibilities may be obtained from the College of Engineering.

## Prerequisites

1. A bachelor's degree in an ABET accredited curriculum in engineering with a minimum GPA of 2.5; or
2. A bachelor's degree with a minimum GPA of 2.5 in engineering, mathematics, a natural science or other discipline with the requirement that essential undergraduate prerequisites in engineering be satisfied;
3. Graduate students must consult with a graduate advisor, with whom they will be working, for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR) must be during the first semester in residence unless taken and passed previously. Courses taken after the first semester without having fulfilled the GWAR will not be counted toward the graduate degree.

## Advancement to Candidacy

1. Removal of all undergraduate deficiencies as determined by the Graduate Advisor;
2. Students may, at the discretion of the Graduate Advisor, be required to take examinations in some chosen areas;

## Requirements

1. Completion of a minimum of 30 units beyond the bachelor's degree in upper division and approved graduate courses, including:
A. A minimum of 18 units of 500 and/or 600 level courses in engineering;
B. Six units of electives selected from approved upper division (400-level) or graduate courses from appropriate areas;
C. Completion of an acceptable thesis or project and/or comprehensive examination.
Note: Students are strongly advised to read and be familiar with the campus regulations described under "Graduate Programs" elsewhere in this Catalog.

## Master of Science in Engineering Management (code COE_MS02)

Program Directors

## Mihir K. Das, MSEM Director

Kenneth Poertner, Director of Graduate Programs, CSUDH College of Business Administration and Public Policy

The Master of Science in Engineering Management (MSEM) is a Pilot Program effective from Fall 2002 to Summer 2009. It is jointly offered by the College of Engineering at California State University, Long Beach (CSULB) and the College of Business Administration and Public Policy at California State University, Dominguez Hills (CSUDH). This program is an on-line program offer only through University and College Extension Services.

The MSEM is an interdisciplinary degree designed to integrate the development of management and engineering skills focusing on problem solving in the synthesis of technical, financial, and organizational requirements for engineering projects in a rapidly changing environment. The College of Engineering at CSULB has the primary responsibility for the engineering component of the program, and similarly, the College of Business Administration and Public Policy at CSUDH has the primary responsibility for the business and management component of the program.

## Degree Designation

The degree is designated as the Master of Science in Engineering Management and is granted at California State University, Long Beach in the name of the two institutions in accordance with an agreement between both campuses of the California State University system. The diploma indicates the dual nature of the degree and specifies that it be granted only when requirements in both subject areas, as specified by the collaborating institutions, have been satisfied.

## Program Supervision

Overall program supervision is the joint responsibility of the MSEM Program Director, CSULB College of Engineering and the Director of Graduate Programs, CSUDH College of Business Administration and Public Policy. The faculty guidance committees on both campuses will monitor the curriculum changes as needed. Students must be admitted to both institutions jointly.

## Admission Requirements

1. A bachelor's degree in an ABET accredited curriculum in engineering or engineering related areas with a minimum GPA of 2.5 is required to enter the MSEM program. In exceptional cases, an applicant with a non-engineering degree with substantial technical experience may be admitted at the discretion of the Program Directors. Foreign students must meet equivalent standard.
2. A minimum of two (2) years of professional engineering experience and demonstration of sufficient background to perform graduate study in business.
3. The general Graduate Record Examination (GRE) is required. A minimum score of 450 on the Graduate Management Admissions Test (GMAT) may be substituted for this requirement.
4. Applicants whose first or native language is not English are required to have a minimum score of 550 in the Test
of English as a Foreign Language (TOEFL). However, this requirement is waived for students with a bachelor's or master's degree from an accredited U.S. university.
5. The Graduation Writing Assessment Requirement must be fulfilled during the first session of enrollment unless taken and passed previously. Courses taken after the first session without having fulfilled the GWAR may not be counted toward the degree.

## Advancement to Candidacy

1. Student must remove any deficiencies as determined by the Program Graduate Advisor.
2. At the direction of the Program Graduate Advisor, students may be required to take examinations in their chosen areas.
3. Students must have completed at least 18 units of core curriculum with a minimum grade-point average of 3.0.
4. Student must have fulfilled the Graduation Writing Assessment Requirement (GWAR).

## Requirements

The MSEM program requires the completion of 33 semester units of coursework (core + capstone project) and any preparatory prerequisite coursework, as indicated below:

## Prerequisite Coursework (subject credits only)

CSULB:
MSEM 406B Engineering Economy and Administration (3) CSUDH:
MSEM 495D Special Topics in Financial Accounting/ Business Finance (2)
MSEM 495D Special Topics in Business: Marketing Principles/ Economics of the Firm (2)

## Core Coursework

## CSULB:

MSEM 591B Engineers to Managers - A Transition (3)
MSEM 570B Engineering Management Principles and Practices (3)
MSEM 506B Management of Engineering Technology and Innovation (3)
MSEM 507B Engineering Project Management (3)
MSEM 511B Advanced Manufacturing Management Systems (3)

## CSUDH:

MSEM 502D Advanced Topics in Accounting (3)
MSEM 500D Advanced Topics in Finance (3)
MSEM 500D Human Behavior in Organizations (3)
MSEM 500D Strategic Marketing: Cases and Current Issues (3)
MSEM 595D Special Topics in Management: Team Management and Leadership (3)

## Capstone Integrative Coursework - Culminating Experience

CSULB:
MSEM 596B Special Projects in Engineering Management (3)

Notes -1 . The prerequisite coursework may be waived for students who have successfully completed undergraduate courses in the disciplines indicated.
2. Students are strongly advised to read and be familiar with the campus regulations described under "Graduate Programs" elsewhere in the CSULB and CSUDH Catalogs.

## Electives

CSULB: MSEM 461B, 483B, 505B, 508B and 532B.

## Graduate Certificate in Systems Engineering (code COE_CT01)

Director: Sandra J. Cynar
The 18-unit Post Baccalaureate Certificate Program in Systems Engineering (SE) is designed to provide interested students or practicing engineers with the very latest in SE capability and the ability to plan and execute complex SE projects. The Certificate Program is focused toward development and management of complex systems. Each such complex system requires a clear SE Master Plan, a set of SE Methodologies, appropriate tools, a rigorous requirements flow-down technique, and a comprehensive Project Management Plan to enable system design and project management for effective and efficient human interaction.

## Requirement

1. Completion of an accredited baccalaureate degree in engineering or equivalent;
2. Satisfactory completion of 18 units listed below;
3. File a program application card with Admissions and Records, and file for the Certificate at least one semester prior to completion;
4. The Certificate may be awarded concurrently or subsequently to baccalaureate degree.

## Required Courses

The Certificate Program requires a minimum of 18 semester units, as indicated below.

1. System Engineering Core Courses, 6 units of the following: ENGR 532 and MAE 508.
2. Elective Engineering Management Courses, 6 units from the following: CECS 521, MAE 506 and 507
3. Elective Manufacturing Courses, 3 units from the following: ENGR 574, 595 and MEA 574
4. Advanced Engineering Mathematics/Analysis, 3 units from the following: EE 505, 508, MAE 501 and 502

## Ph.D. in Engineering and Industrial Applied Mathematics (code COE_PH01)

Program Director: Dr. Mahyar Amouzegar, Associate Dean for Research and Development

Ph.D. in Engineering and Industrial Applied Mathematics, offered jointly by the College of Engineering at California State University, Long Beach and The Claremont Graduate University, allows students to pursue doctoral programs in most areas of engineering and applied mathematics.

The College of Engineering at California State University, Long Beach (CSULB) has the primary responsibility for the engineering portion of the program, and the Department of Mathematics at The Claremont Graduate University (CGU) has the primary responsibility for the applied mathematics portion. The program of study for each Ph.D. candidate is carefully integrated to ensure the interdisciplinary nature of each student's research.

## Degree Designation

The degree shall be designated as the Doctor of Philosophy in Engineering and Industrial Applied Mathematics and shall be granted at the Claremont Graduate University in the name of the two universities in accordance with an agreement between CGU and the California State University, Long Beach. The diploma shall indicate the dual nature of the degree and shall specify that it is being granted only when requirements have been satisfied in both subject areas as specified by the collaborating institutions.

## Program Supervision

Overall program supervision will be the responsibility of a committee (The Program Committee) consisting of two faculty members from the Mathematics Department at CGU and two faculty members from the CSULB College of Engineering. The Provost at CGU and the Dean of Engineering at CSULB will serve as ex-officio members of the Program Committee. Students must be admitted to both institutions jointly.

## Admission Requirements

Admission will be granted to a limited number of qualified students, and therefore application should be made as early as possible. Applications are encouraged from both men and women, and particularly from members of minority and handicapped groups. Completed applications are due preferably by April 20 for the Fall semester and by October 31 for the Spring semester, although later applications may be allowed at the discretion of the Program Committee. Students shall be jointly admitted to the two campuses. The Program Committee has the responsibility of deciding admissions, consistent with campus regulations. (See Application Procedure in this booklet)

To be admitted to the Joint Ph.D. Program, an applicant must have received a bachelor's or a master's degree in science, engineering, or mathematics from an accredited institution. He or she must, moreover, have attained such a scholastic record and present such confidential recommendations as to indicate that he or she is well qualified to pursue, with distinction, advanced study and research. Admission sometimes may have to be refused solely on the basis of limited facilities in the option desired.

GRE General is a requirement before admission. This requirement relates to the main elements of the GRE General: Analytical, Verbal, Quantitative. GRE Subject examinations (mathematics or engineering) are not required. Applicants, whose first or native language is not English, are required to have a current minimum score of 550 in the Test of English as a Foreign Language (TOEFL). However, this requirement is waived for students with a bachelor's or master's degree from an accredited U. S. university.

## Program Planning and Supervision

Within a semester of beginning study in the Joint Doctoral Program, the student arranges with the Program Committee for an advisor in Mathematics at CGU and an advisor in Engineering at CSULB. The student's program of study will be arranged individually by each student in collaboration with the advisors. However, the student's overall performance will be monitored by the Program Committee. The two advisors on the two campuses will confer periodically regarding the student's progress.

## Plan of Study

After consultation with the advisors, students are requested to prepare and file with the Program Committee before the end of the first semester a Plan of Study for completing the course requirements for the degree. The purpose of the Plan is to ensure that the student is aware of the requirements for the degree. The Plan of Study should indicate the areas of study that the student will be taking in preparation for the preliminary examinations. In exceptional circumstances, a Plan of Study may be altered at a subsequent time by petition.

A minimum of 72 units of course work, independent study, and research (including transfer credit) must be completed. Transfer credits of up to 24 units of related courses at the master's level is permissible on approval of the Program Committee; this course work must have been completed with at least a grade of " B " or its equivalent at an accredited institution and must be directly related to the joint program and to the student's Ph.D. goals. Of the 72 units, a minimum of 24 units must normally be completed in the graduate engineering program at CSULB and a minimum of 24 in the graduate mathematics program at CGU. Both sets of 24 units must conform to the area requirements of the relevant institution and must be approved by the Program Committee. All degree requirements must be completed within seven years (or six with the transfer of 24 units according to CGU regulations) from the time a student begins graduate study.

If a student withdraws from the program after completing a substantial portion of the course work, a master's degree at either or both institutions is still possible by satisfaction of the appropriate requirements. Both CGU and CSULB require 32 semester units of course work for master's degrees.

## Preliminary Examinations

The student is required to pass written preliminary examinations. These examinations shall consist of four examination areas: two in engineering and two in mathematics. In each area there will be a three-hour examination. These examinations are usually taken after completion of the relevant course work at each institution. These examinations will be given two or three times a year at the discretion and under the control of the Program Committee. Should a student fail an exam, one retake will be allowed, after petition to the Program Committee.

Before taking the first preliminary examination, the student is required to complete the Preliminary Examination Permission Form. This form requires the student to specify the four areas of the Preliminary Examination, and, it must be signed by the student's intended dissertation advisor. The purpose of this form is to certify that the student and dissertation advisor are in agreement on the set of examinations. If, in the course of time, this set of examinations and/or the advisor, are amended, the form must be resubmitted. The preliminary examinations will be considered as completed only when the four examinations specified on the student's form have been duly taken and passed. This form is available at the CGU website, www. cgu.edu/math.

## Research Tools

A student in the Joint Ph.D. Program must demonstrate proficiency in problem-solving ability using computer programs. This demonstration may take different forms depending on the student's engineering sub-discipline, but it must include evidence that the student has used an appropriate computer language and an algorithmic method to solve a problem from an engineering discipline.

## Doctoral Committee

During entry to the program and through the period of the main body of course work at CGU and CSULB, the student's progress will be monitored by the Program Committee. On successful completion of the preliminary examinations, the student may petition the Program Committee to constitute the Doctoral Committee. This committee is chosen by the student with advice from the faculty and with approval of the Program Committee, and must include at least two faculty members from each of CGU and CSULB and must provide both breadth and depth in mathematics and engineering in the faculty chosen. The Doctoral Committee supervises the student's progress through research preparation and Dissertation writing, and administers the qualifying and oral examinations for the degree. The Chair of the Doctoral Committee is the Dissertation supervisor.

## Research Preparation

On completion of at least 48 units of course work (including transfer units) and completion of the preliminary examinations and research tool test, a student embarks on the research phase of the Joint Doctoral Program. In preparation for the research phase, the student is expected to spend at least a semester in advanced graduate courses, seminars, or directed reading courses, where exposure to research material is emphasized. From these and other sources the student gains the ability to understand the motivation for research in engineering and applied mathematics, and learns to apply research techniques.

## Research Proposal and Qualifying Examination

With these advanced courses as background, and with the guidance of the Doctoral Committee, the student shall define an area of proposed research and prepare a written Dissertation Proposal containing an outline of the research to be undertaken and references to relevant source materials. The Dissertation Proposal is presented to the Doctoral Committee at least two weeks prior to the Qualifying Examination. The appropriate form under "Doctoral Degree Forms" can be obtained from the CGU website www.cgu.edu, (under Current Students, Registrar Information). The Qualifying Examination is an oral presentation to the Doctoral Committee by the student describing the research planned. The student shall be expected to present evidence both as to the mathematical content and to the engineering application of the proposed research, supporting such evidence with references to previous research work in both areas. The Doctoral Committee judges the fitness and quality of the Dissertation Proposal from this presentation and from the written proposal, and subsequently communicates its recommendations to the Program Committee; only
upon a positive recommendation may the student embark on a Dissertation. In the event of failure, the qualifying examination may be retaken once, after petition to the Program Committee.

## Advancement to Candidacy

After successful completion of the Qualifying Examination and certification that all other requirements are fulfilled, the student is Advanced to Candidacy. The appropriate form under "Doctoral Degree Forms" may be obtained from the CGU website. This must occur at least six months before the Final Oral Defense.

## Dissertation and Final Oral Examination

On completion of the research, the student will prepare the Dissertation in accordance with CGU regulations. A final draft of the Dissertation will be presented to each member of the Doctoral Committee at least three weeks prior to the final oral examination. The appropriate form under "Doctoral Degree Forms" must be filed three weeks before the exam with an Abstract of the Dissertation. This deadline is very strict and no exceptions will be made. Please see the CGU website under "Academic Calendar" for the Final Defense scheduling dates. The oral defense will be held on the campus of the Dissertation supervisor.

## Residency Requirements

Doctoral students must complete their programs in a period of seven years, or six with the transfer of 24 units according to CGU regulations, see below. During this time, a minimum of 72 units of course work, independent study, and research, including transfer credit, must be completed. Normally no more than 16 units per semester may be credited toward the degree. No more than 12 units per summer session may be credited toward the degree.

All degree requirements must be completed within seven years from the time a student begins graduate study. Work for which transfer credit is granted will be counted as part of the seven years, e.g., if transfer credit of 24 units (one year) is granted, the time limit will be six years. (The Transfer form is available on the CGU website) The Program Committee will consider petitions for extensions.

The residency requirements for the Ph.D. degree may be met either by two semesters of full-time study in a 24-month period or by the completion of 48 units of course work within a 48-month period, including work in the Summer Session.

Students who receive transfer credit for 12 units or less may meet the residence requirement either by completing two full-time semesters of course work within a 24 -month period or by completing 36 units within a 48-month period. Those receiving transfer credit for 13 to 24 units may meet the residence requirement by completing 24 units within a 36 -month period. The seven-year maximum time period for the Ph.D. degree is reduced by six months for 12 units or less of transfer credit and by 12 months for 13 to 24 units of transfer credit.

## Policies and Procedures

1. Throughout their entire program of study, unit-taking students must be registered at either CGU or CSULB. Students who intend not to take course units at either institution, including those who have finished their course units, must take the necessary steps to maintain
continuous enrollment. This is achieved by registering for M499 Doctoral Study at Claremont Graduate University. At least two semesters of registration for M499 Doctoral Study at CGU must be during their last year prior to graduation. In order for the degree to be conferred, a student must meet all regulations as stated in the CGU Bulletin under "Degree Regulations." Requests for leaves of absence must be submitted to each Registrar's Office and approved by both institutions according to the standards of each, and upon approval of leave should advise the Math Office at CGU and their department of study at CSULB. Students should contact each Registrar's Office for leave of absence policies. If the student fails to advise the Registrar at CGU of his/her leave granted by CSULB, he/she will be dropped from the program, as CGU has no official arrangement for leaves. If this happens the student will be required to pay a fee to be reinstated at CGU, plus pay the regular tuition on return.
2. International students registered for units at CSULB must provide the CGU International Student Advisor with proof of registration within two weeks of the beginning of the semester at CGU. Proof of full-time registration (at least 8 units) is required to maintain immigration status. (In the circumstance of completion of units, registration in Doctoral Study, CGU Math 499, is required)
3. Students should arrange for advisors, one in math at CGU and one in engineering at CSULB, at the earliest opportunity. The program committee will help provide advisors.
4. After consultation with their advisors, students must submit a plan of study, including a petition for transfer of credits, if applicable, during their first year of study. The plan of study must be approved and transfer of units recommended to the Registrar by the program committee.
5. Students admitted to provisional status must provide the materials needed to complete their files before the end of their first semester of enrollment. Official scores for the GRE General Test are required of all students before admission to full graduate standing. The joint faculty program committee will review completed files for change of status.
6. The academic progress of students admitted to conditional status will be reviewed by the program committee prior to a decision about change of status.

## Procedures for Student Admission

1. Students must complete application forms for both CGU and CSULB. The completed application package must include transcripts, at least 3 letters of reference (preferably on the forms supplied in the CGU package) as well as a personal statement and resume. Current and official GRE scores (on Q, A and $V$ ) are required. Scores may not be older than 5 years.
2. The completed application package (including a separate Long Beach Application and fee for CSULB) must be submitted to the CGU Admissions Office, 160 E. Tenth Street, Claremont, CA 91711-6163. Do not send application materials to CSULB, as it will result in considerable delay. Both application fees are required.
3. Online applications are acceptable for the Joint Program, however, consult the Program Advisors at CGU and CSULB for appropriate procedures.
4. A complete file is reviewed by the CGU members of the Joint Ph.D. Program Committee. In the event of a negative review, a rejection letter is issued by CGU.
5. A positive review by CGU sets up the following steps: The CSULB application form and check, and a copy of the completed file is sent to the CSULB Program Director, Dr. Mahyar Amouzegar, Associate Dean for Research and Development, College of Engineering, Phone 562-985-8032. (Email: mahyar@csulb.edu). The CSULB members of the Joint Ph.D. Program Committee then review the application in consultation with professors in the appropriate discipline. Results of Long Beach review are transmitted back to CGU Math. Upon a positive review by CSULB the application and fee are sent to the CSULB Admissions Office to be processed. A negative review initiates a rejection letter from CGU.
6. CGU will generate an Admission letter and a copy of this letter will be sent to CSULB. The CGU Admission letter will include a decision card and will request that a $\$ 200$ tuition deposit be sent back to CGU if the student chooses to accept the offer of admission to the joint program.
Notes: A. Since only completed files are transmitted from CGU to CSULB, information on the status of a file is available only from CGU (Admissions Office, 909-607-0434, admiss@cgu.edu, or Mary Solberg, School of Mathematical Sciences, 909-621-8080, email: mary.solberg@cgu.edu)
B. For any CSULB information relating to the Joint Doctoral Program, please contact Kim Truesdelle at 562-985-8032 or email: kimtrue@csulb.edu.

## Courses (ENGR)

## LOWER DIVISION

## 90. Special Topics in Engineering (1)

Selected topics from recent advances of interest to beginning engineering students.
May be repeated to a maximum of 3 units. (Lecture problems 1 hour)

## 101. Introduction to the Engineering Profession (1)

Freshman orientation seminar on careers in engineering. Speakers from various fields illustrate opportunities and challenges in the engineering profession.
(Lecture-problems 1 hour) Letter grade only (A-F).

## 202. Computer Methods in Engineering (3)

Prerequisites: CECS 174 and MATH 224.
Introduction to MATLAB and numerical methods with applications to engineering. Programming in MATLAB. Introduction to SIMULINK and other MATLAB toolboxes.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).
203. Engineering Problems and Analysis (3)

Prerequisite: MATH 120; Corequisite: ENGR 203L.
Formulation of engineering problems and methods for their analysis. Application of vectors, matrices, derivatives and intregration into engineering problems. Computer aided analysis using MATLAB, MathCad, etc.
(Lecture - Problems hours) Letter grade only (A-F).

## 203L. Engineering Problems and Analysis Laboratory (1)

Prerequisite: MATH 120; Corequisite: ENGR 203.
Computer-based exercises on fundamental concepts such as vectors, matrices, derivatives, integrals. Practical engineering problems are assigned and solved using MATLAB.
(Laboratory 3 hours) Letter grade only (A-F).

## 205. Surfing the Information Superhighway - Internet Resources and Services (3)

Prerequisite: ENGL 100.
Overview of Internet resources, services and networked information systems for nonspecialists. Instructional and learning methods include a combination of lecture, on-line demonstrations, class discussions, guest speakers, and computer lab exercises.
(Lecture-problems 3 hours) Letter grade only (A-F).

## UPPER DIVISION

302I. Energy and Environment: A Global Perspective (3)
Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Renewable/nonrenewable energy sources, including fossil fuels, nuclear, solar, wind, wave, geothermal, hydroelectric and biomass. Available resources, market, trends, and technology. Energy conservation, balance, alternatives, social, cultural, and political impacts. Ecosystem, human-induced climate changes. Environment and power generation, pollution, ozone depletion. Recycling.
(Lecture-Problem 3 hours) Letter grade only (A-F).

## 304. Engineering Problem Solving and Design (3)

Prerequisite: MATH 117 or three and one half years of high school mathematics, including algebra, geometry, intermediate algebra and one-half year of trigonometry.
Problem solving process: Define, Solve, Alternatives, and Implement. Problem solving tools: Analytical, Graphical, and Computer-based. Procedures for creative problem solving. Nature of engineering design to meet a need. Design process overview. Critical thinking exercises using real-life examples. Team projects: Written reports and oral presentations required.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).
310. Business Communications in Engineering Profession (3)
Prerequisites: ENGL 100, COMM 110.
Basic concepts for understanding/practice of communication in world of business for managers and professionals. Language/ conversations in business and role in coordinating actions, resolving breakdowns in work and customer satisfaction. Business writing formats, formal report, business conversation. International, technical, and linguistic developments in business communication. (Lecture - Discussion 3 hours) Letter grade only (A-F).

## 330. Manufacturing Processes (3)

Prerequisite: MAE 322.
Primary manufacturing processes for metals, plastics, composites, and ceramics such as casting, metal-forming, injection molding, blow molding, and powder processing. Computer simulation.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
340. Guitar Electronics: Engineering Sound (3)

Prerequisites: Upper division standing, completion of GE Foundation requirements, one course from G.E. category Blb.
Historical review of electro-magnetic principles and their application to the reproduction, modification, and creation of sound. The electric guitar, its amplifiers, and special effects devices (analog and digital) will be used to gain practical experience. Electrical safety, physiology and physics of the ear.
Not open for credit to students with credit in EE 333. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 348. Introduction to Information Security, Privacy, and Societal Implications (3)

Prerequisites: Junior standing, computer literacy, and familiarity with PC and Internet.
Provides basic understanding of some general principles of computer and information security, privacy, business/societal implications. Discussions, demonstrations, and exercises. Overview of underlying security principles, methodologies and products, privacy/societal implications, and concept of "Trustworthy" computing for security in organizations and personal computer/internet use.
(Lecture-discussion 3 hours) Letter grade only (A-F).
350. Computers, Ethics and Society (3)

Prerequisites: Three (3) units from GE Category A. 1 (Writing) and 3 units from GE Category D (Social and Behavioral Science).
An examination of the social impact of information technologies. Topics include a survey of the technology (software, hardware and key applications), ethical obligations of specialists, the computer in the workplace, shifts of power, privacy, and legal issues related to computing.
(Lecture-problems 3 hrs )

## 370I. Astronautics and Space (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Combines the disciplines of space engineering with economics, human physiology, satellite meteorology, earth resources and environmental science, astronautics and space exploration. Emphasis on oral and written communications, numeracy and use of computers. Extensive use of computer animation, videographics and the Internet.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 375. Total Quality and Continuous Improvement (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Total Quality approach to achieve Continuous Improvement. Quality gurus and Deming's philosophy on TQM, Strategic planning, Customer satisfaction, TQM tools, data representation, Worker empowerment/ teamwork, Supply chain management, Statistical tools for controlling quality, ISO 9000, Malcolm Baldrige Award, Deming's Prize, practice and Case studies. Team projects. (Lecture-problems 3 hours) Letter grade only (A-F).

## 391. Engineering and Civilization (3)

Prerequisites: Completion of G.E. Foundation, one or more Explorations course, and upper-division standing.
Interaction between human beings, environment, resources, engineering, science, including impact of engineering and technology on society. Readings/lectures providing perspective and insight into current problems at interfaces between engineering and other disciplines, especially anthropology, art, ecology, economics, philosophy, psychology, science, social sciences.
(Lecture-Problems: 3 hours.)

## 461. Manufacturing Resource Planning (3)

Prerequisite: Upper division standing.
Principles of manufacturing resources planning, operations management, and control. Forecasting techniques, production planning and scheduling procedures, and analysis of manufacturing resources. Material inventory activities, facilities and physical plant layout, production process and equipment, and productivity and quality. Team projects using computer modeling software.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 483. Computer Integrated Manufacturing (3)

Prerequisite: ENGR 330.
Principles and practices of the function of computers in controlling the manufacturing process, including hardware and software requirements for computer automation; computer architectures used in manufacturing; computer-aided design; manufacturing systems; computer controlled manufacturing equipment; simulation; quality assurance; programming the factory.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 492B. Internship In Engineering (3)

Prerequisite: Upper division standing and consent of the instructor.
A Co-Op field experience. Students who qualify can be placed in a major- or career-related, pre-professional experience as an employee in private industry or in public agencies.
May be repeated to a maximum of 6 units. (Lecture-problems 3 hours)

## GRADUATE LEVEL

## 511. Quality Assurance in Manufacturing (3)

Prerequisites: CE 406 or consent of instructor, and graduate standing.
In-depth studies of planning for quality, productivity and competitive positioning in manufacturing. Understanding the TQM process. Inspection and standardization and product reliability strategies. Case study projects.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 532. Logistics Principles and Practice (3)

Prerequisite: Graduate standing or consent of instructor.
Logistics concepts, history, industry and military practice, lessons learned, and the complete product life cycle. Logistics processes including maintainability, support resource identification and technical documentation and training. Engineering design influence on product maintenance and material and operational support.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 574. Advanced Manufacturing Technology and Processes (3)

Prerequisites: Consent of instructor, and graduate standing. Build from manufacturing process into factory integration, study of advanced manufacturing processes including composites, electronics manufacturing, automated material handling, assembly, inspection, warehousing, factory and office of the future. Automation, robotic applications, flexible manufacturing systems, group technology and the economics of the automated systems. (Lecture and Computer Laboratory, 3 hours) Letter grade only (A-F).

## 591. Engineers to Managers - A Transition (3)

Prerequisites: Consent of instructor and graduate standing.
Engineers transitioning to management. Engineering mindset advantages and disadvantages; Successful managers; Corporations - system of people, machines, and facilities; Requirements; Interacting disciplines; "people skills" in non-coercive supervision; Technical managers; Strategic planning/implementation; Changes and technology; Total Quality Management (TQM); Team projects.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 596. Special Projects in Engineering Management (3)

Prerequisites: Eligible for advancement to candidacy and consent of instructor.
Under faculty supervision students will pursue synthesis work, as a culminating experience, on the topics learned for the interdisciplinary MSEM degree. In consultation with the Program Advisor, an Independent Study form must be completed. An acceptable project report must be submitted.
Can be repeated for credit to a maximum of 6 units. Letter grade only (A-F).

## 790. Advanced Special Topics in Engineering (4)

Prerequisites: MS or equivalent and formally admitted to the Ph.D. program.
Each offering is based on an area of Engineering in which recent advances have been made. Specific topics will be recorded on student's transcripts.
Repeatable to a maximum of 8 units with different topics. Course Survey Form must be completed. Letter grade only (A-F).

## 795. Advanced Directed Studies (4)

Prerequisites: MS or equivalent and formally admitted to the Ph.D. program.
Explorations of theoretical and experimental (if applicable)
Engineering problems in great depth with emphasis on
mathematical modeling and analysis. Students must present the findings in a formal report and a seminar.
May be repeated to a maximum of 8 units. Course Survey Form must be completed. Letter grade only (A-F).

## 798. Doctoral Dissertation (4-12)

Prerequisites: Enrollment is limited to students formally admitted to the Ph.D. program who have passed the preliminary examinations and research tool tests on completion of at least 48 units of course work.
A written dissertation proposal containing an outline of the research to be undertaken and references to relevant source material must be submitted. Only upon a positive recommendation a student may embark on a dissertation.
Minimum 4 units per semester. May be repeated until the work is completed; any work beyond the maximum of 12 units does not count toward the degree. Letter grade only (A-F).

## Courses (MSEM)

## UPPER DIVISION

## 406B. Engineering Economy and Administration (3)

Prerequisite or Corequisite: ECON 300 or consent of instructor.
Engineering management principles and economic analysis: with time value of money, after-tax analysis for rate of return. Graduate students will be required to do an additional assignment. Letter grade only (A-F).

## 461B. Manufacturing Resource Planning (3)

Prerequisite: Upper division standing.
Basic principles of manufacturing resources planning, operations management, and control. Forecasting techniques, production planning and scheduling procedures, and analysis of manufacturing resources. Material inventory activities, facilities and physical plant layout, production process and equipment, and productivity and quality. Team projects with modeling software. Letter grade only (A-F).
483B. Computer Integrated Manufacturing (3) Prerequisite: ENGR 330.
Principles and practices of the function of computers in controlling the manufacturing process, including hardware and software requirements for computer automation; computer architectures used in manufacturing; computer-aided design; manufacturing systems; computer controlled manufacturing equipment; simulation; quality assurance; programming the factory. Letter grade only (A-F).

## GRADUATE LEVEL

## 505B. Quantitative Methods for Engineering Managers (3)

Prerequisite: MAE 501 or 502 or equivalents.
Quantitative approaches in engineering management decisionmaking. Computer-based tools used in management decisionmaking - basis for decision or validate decisions made using subjective approaches. Linear/dynamic programming, network analysis, Monte Carlo simulation and queuing models. Computerbased tools and interpreting results. Problem formulation emphasized.
Letter grade only (A-F).

## 506B. Management of Engineering Technology and Innovation (3)

Prerequisite: Graduate engineering standing.
Analysis of the principles and theory of engineering administrative organizations, information systems, management functions, decision making tools, strategies and administrative policy formulations. Letter grade only (A-F).

## 507B. Engineering Project Management (3)

Prerequisite: Graduate engineering standing.
Theory and philosophies of project management, principles of internal and industrial organization planning and control systems, motion in time study, industrial statistics, industrial research as aid to decision making.
Letter grade only (A-F).

## 508B. Systems Engineering and Integration (3)

Prerequisite: Senior standing or consent of instructor.
Introduction to the tools and methods employed by systems engineers in the aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in the context of integrated product teams and the product life cycle. Trade studies and risk management. Projects are assigned and written reports and oral presentations are required.
Letter grade only (A-F).

## 511B. Advanced Manufacturing Management Systems (3)

Prerequisite: Consent to instructor.
Management systems for Integrated Product Development and Concurrent Engineering; Quality, Productivity and Costs, emphasis Just-in-Time Manufacturing; Quality-Based Manufacturing Systems: TQM and ISO 9000; Customer Requirement and Quality Function Deployment; Design Manufacturing and Assembly, Poka-Yoke; Demand-Driven, "Pull" manufacturing. "Lean Enterprise".
Letter grade only (A-F).

## 532B. Logistics Principles and Practice (3)

Prerequisite: Graduate standing or consent of instructor.
Logistics concepts, history, industry and military practice, lessons learned, and the complete product life cycle. Logistics processes including maintainability, support resource identification and technical documentation and training. Engineering design influence on product maintenance and material and operational support.
Letter grade only (A-F).

## 570B. Engineering Management Principles and Applications (3)

Prerequisite: Graduate standing, or consent of instructor. Engineering management principles/applications. Relationships of management functions -modern products or service based companies. Technical organization in global market place. Reengineering, empowerment, concurrent engineering, and systemic thinking. Evolutionary theories of management. Strategic planning, goal setting, communication, resource distribution, etc. Team projects.
Letter grade only (A-F).

## 590B. Directed Studies in Engineering Management (3)

Prerequisite: Graduate standing.
Offers an opportunity to explore and learn in depth specific subject areas in engineering management under the guidance of a faculty. In addition, a student must submit a high quality report within the scope of the engineering management topics covered.
May be repeated to a maximum of 6 units with different topics in different semesters. Letter grading only (A-F).
591B. Engineers to Managers - A Transition (3)
Prerequisites: Consent of instructor and graduate standing.
Engineers transitioning to management. Engineering mindset advantages and disadvantages; Successful managers;
Corporations - system of people, machines, and facilities;
Requirements; Inter-acting disciplines; "people skills" in noncoercive supervision; Technical managers; Managing Changes and technology; Team projects.
(Lecture-Problems 3 hours) Letter grade only (A-F).
596B. Special Projects in Engineering Management (3)
Prerequisites: Eligible for advancement to candidacy and consent of instructor.
Under faculty supervision students will pursue synthesis work, as a culminating experience, on the topics learned for the interdisciplinary MSEM degree. In consultation with the Program Advisor, an Independent Study form must be completed. An acceptable project report must be submitted.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## COLLEGE OF HEALTH AND HUMAN SERVICES

Dean
Ronald E. Vogel
Associate Dean
Michael Lacourse
Associate Dean for Research
Gail Farmer
Director of Development
Renee O. Hannan
Administrative Services Manager
Elizabeth Martin
Administrative Operations Manager
Taina Bucci
Facilities Coordinator
Denysia O'Connell
Information Technology Coordinator
Mike Nosow
College Office
Engineering Technology Building (ET), Room 200
Telephone / FAX
(562) 985-4194 / (562) 985-7581

## Website

www.csulb.edu/colleges/chhs/

The College of Health and Human Services offers a wide range of programs at the undergraduate and graduate levels. Included within the College are eleven diverse departments, four programs, and twelve centers:

## Departments

Communicative Disorders
Criminal Justice
Family and Consumer Sciences
Health Science
Kinesiology
Nursing
Physical Therapy
Professional Studies
Graduate Center for Public Policy and Administration
Recreation and Leisure Studies
Social Work
Programs
Gerontology
Health Care Administration
Military Science (Army ROTC)
Radiation Therapy

## Centers

Bureau of Governmental Research and Services
Center for Career Studies
Center for Criminal Justice Research and Training
Center for Disability Studies and Scholarship
Center for Health Care Innovation
Center for Innovative Foodservices Technology
Center for Latino Community Health
Center for Successful Aging
Child and Family Center
Child Welfare Training Center
Joint Studies Institute
Kinesiotherapy Clinic
Movement Science Laboratories
Physical Therapy Assessment Center
Senior University

## Goals

The College of Health and Human Services, as a professional College, is united by the following purposes:

- The academic and professional preparation of students for careers in their chosen field of specialization;
- The development and maintenance of high standards of academic achievement for students;
- The encouragement of critical thinking through rigorous academic and professional preparation; and
- The conduct of ongoing research, training, and community involvement by faculty and students.
- To achieve these goals, the College seeks to create an environment at both the undergraduate and graduate levels that encourages student growth by providing:
- A broad educational experience in the liberal arts;
- Specialized instruction leading to professional development and competence; and
- Integration of academic and professional course work to develop the whole person.


## Degrees Offered

Bachelor of Arts:
Communicative Disorders
Family and Consumer Sciences
Kinesiology
Recreation
Social Work
Bachelor of Science:
Audiology
Criminal Justice
Dietetics and Food Administration
Health Care Administration
Health Science
Kinesiology
Nursing
Occupational Studies

Master of Arts:
Communicative Disorders
Family and Consumer Sciences
Kinesiology
Occupational Studies
Master of Science:
Criminal Justice
Emergency Services Administration
Gerontology
Health Care Administration
Health Science
Kinesiology
Nursing
Nursing / Public Health (concurrent degree)
Nursing / Health Care Administration (concurrent degree) Nutritional Science
Recreation Administration
Master of Physical Therapy
Master of Public Administration
Master of Public Health: Community Health Education
Master of Social Work

## Certificates Offered

Administration of Campus Recreation and Student Service Programs
Administration of Outdoor Recreation Resources
Administration of Travel and Tourism
Administration of Volunteer Services
Food-Service Systems Administration
Gerontology
Health Care Administration
Kinesiotherapy
Leisure Counseling (graduate)
Nurse Practitioner (graduate)
Public Management Analyst (graduate)
Public Sector Employer-Employee Relations and Personnel Management (graduate)
Public Sector Financial Management (graduate)
School Nursing Credential
Therapeutic Recreation
Transportation Policy and Planning (graduate)
Urban Executive Management (graduate)
Wilderness Studies

## Credential Programs

Single subject credential programs are offered in Family and Consumer Sciences, Health Science, and Kinesiology/ Physical Education. Students who plan to teach these subjects in the secondary schools are strongly advised to consult the Single Subject Advisor as early as possible in their studies, so that they fulfill subject matter preparation requirements while completing an undergraduate major.
Designated subject credential programs in Adult and
Vocational Education are offered in Professional Studies.
Services credentials are offered in Communicative Disorders (Clinical Rehabilitative), Nursing (Health Service/School Health), and Social Work (Pupil Personnel - Child Welfare and Attendance).

## College Facilities

The College of Health and Human Services is characterized by perhaps the greatest diversity of programs in the University. The eleven departments, four programs, and twelve research centers are housed within twelve buildings on campus. During the period 1992-94, the primary facilities received $\$ 21,000,000$ worth of renovation, including the addition of new equipment in laboratories. As a result, students now have access to state-of-theart classrooms, laboratories, and clinics with equipment matching that of business/industry. As a student, for example, you could visit our Communicative Disorders Speech and Hearing Clinic, Nursing Simulation Lab, or Physical Therapy Labs and Clinic. You could participate in a discussion on the importance of recreation in your life and the lives of others in a Recreation and Leisure Studies course; or a discussion of diet and nutritional needs in Family and Consumer Sciences; or a seminar on AIDS awareness in the Health Science Department; or a seminar on improvement of the quality of life for all people in the Social Work Department. You may choose to swim in our Olympic size pool or be tested in the underwater weight tank, while enrolled in a Kinesiology class. The Department of Criminal Justice may walk you through the forensic investigation of a crime. Public Policy and Administration courses will offer you the opportunity to apply new knowledge, skills, and leadership techniques to the solution of public problems; while Professional Studies could provide you with the competencies requisite for successful employment in secondary schools, community colleges, and adult programs.

As the second largest of the University's seven colleges, Health and Human Services is comprised of over two-thirds laboratory facilities which accommodate its many labintensive programs. These programs combine theory with exciting practical application in the campus laboratories, as well as many off-campus facilities through field work and internships.

## Professional Accreditation

Programs in the College have been accredited by the following state and national accrediting agencies: American Association of Colleges of Nursing, American Association of Family and Consumer Sciences, American Dietetic Association, American Physical Therapy Association, American Public Works Association (APWA), American Speech Language and Hearing Association, Association of University Programs in Health Administration, California Commission for Teacher Credentialing, California Council on Parks and Recreation, California State Board of Registered Nursing, California Teaching Commission, Commission on Accreditation of Allied Health Education Programs, Council on Education for Public Health, Council on Social Work Education, National Association for the Education of Young Children, National Association of Schools of Public Affairs and Administration (NASPAA), National Council for Accreditation of Teacher Education, National Recreation and Park Association Council on Accreditation, Western Institute of Nursing.

The College maintains active involvement in the following organizations:
Special Interest Clubs
Archers, Army ROTC Association, Army ROTC Rangers (AROTC), California Nursing Student Association, Child and Family Associated Students (CAFAS, Family and Consumer Sciences), Criminal Justice Student Association, Fitness Club, Foodservice and Hotel Management Association (Family and Consumer Sciences), Health Care Administration Forum, Health Science Graduate Student Association, Kinesiology and Physical Education Majors Club, National Student Speech-Language-Hearing Association (Communicative Disorders), Peer Health Educators, Pershing Rifles (AROTC), Physical Therapy Student Association, Public Administration Student Association (PASA, Public Policy and Administration), Recreation and Leisure Studies Alumni Association (RALSAA), Recreation Society (Recreation and Leisure Studies), Social Dance Club, Consumer Affairs Student Association (Family and Consumer Sciences), Sports Medicine Club (Kinesiology), Student Affiliates of the American Kinesiotherapy Association (Kinesiology), Student Chapter of American Association of Family and Consumer Sciences, Student Dietetic Association (Family and Consumer Sciences), Student Food Science Society (Family and Consumer Sciences), Students Active in Community Health (Family and Consumer Sciences), Students in Fashion (Family and Consumer Sciences).
Professional and Honors Organizations
Alpha Phi Sigma (Criminal Justice), American College of Healthcare Executives, California Association for Health, Epsilon Pi Tau (Professional Studies), Eta Sigma Delta (Hospitality Foodservice and Hotel Management, Family and Consumer Sciences), Eta Sigma Gamma (Health Science), Kappa Omicron Nu (Family and Consumer Sciences), Omicron Tau Theta (Professional Studies), Phi Epsilon Kappa (Kinesiology), Pi Alpha Alpha (Public Policy and Administration), Recreation and Dance (CAHPERD), Sigma Phi Omega (National Academic and Professional Society in Gerontology), Sigma Theta Tau (Iota Eta Chapter, Nursing).
College and Departmental Organizations Asian Pacific Islanders Committee (Social Work), Associated Students of Social Work, California Nursing Student Association, Dunham/Cleveland Commitee (Social Work), College of Health and Human Services Student Council, Gay, Lesbian, Transsexual, Transgender Committee (Social Work), Latino Student Network Committee (Social Work), National Association of Social Work Unit, Social Work Alumni Association.

## Courses (HHS)

## LOWER DIVISION

## 100. Skills for Living (3)

Provides skills to survive as new members of CSULB communities. Topics include personal security, criminal/civil justice systems, aging, consumer affairs, financial management, personal and
family relations, nutrition, health maintenance and care, disease prevention, fitness, roles of work and leisure.
(Lecture-discussion, 3 hours.) Team taught by College of Health and Human Services Faculty.

## UPPER DIVISION

*374. Psychosocial Aspects of Disability (3)
Prerequisite: PSY 100.
Survey of psychosocial, emotional, and cultural reactions to disease and disability.
Letter grade only (A-F). (Lecture/discussion 3 hours.)
*401. Applied Anatomy I (3)
Prerequisite: BIOL 208, or equivalent.
Advanced study of structure and function of neruomusculoskeletal systems with emphasis on surface contour, myology and joint structure, and neurovascular supply. Includes dissection laboratory and provided materials.
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours.)

## *402. Applied Anatomy II (3)

Prerequisites: BIOL 208, or equivalent, HHS 401.
Continuation of HHS 401, with emphasis on normal anatomy of lower extremities, pelvis, and abdominal region.
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours.)
*403. Tissue Mechanics and Aging (3)
Prerequisites: HHS 401, BIOL 341.
Advanced study of tissue (bone, muscle, dense fibrous connective tissue, cartilage) mechanics and pathomechanics including use, disuse and aging with application to therapeutic procedures.
Letter grade only (A-F). (Lecture/discussion 3 hours.)
*460. Neuroanatomy (4)
Prerequisites: HHS 401, BIOL 341, 441 (concurrent).
Human neuroanatomy with emphasis on structure and function of central nervous system (CNS), cranial nerves, and connecting neural pathways relative to human function and movement.
Neuroanatomical and vascular lesions discussed and correlated to clinical cases.
Letter grade only (A-F). (Lecture/discussion 3 hours, lab 3 hours.)
*471. Pathology (3)
Prerequisite: BIOL 208.
Advanced study of abnormal function as result of disease. Includes general pathology and selected pathologies encompassing cardiovascular, pulmonary, musculoskeletal, peripheral and central nervous system, and integumentary systems.
(Lecture/discussion 3 hours.)

## 492. Field Studies and Career Exploration (1-3)

Prerequisites: Consent of the instructor and a minimum GPA of 2.0.

Participate in fieldwork assignments relating to majors and intended professions. Participate in volunteer or paid assignments in private industries, non-profit organizations, or public agencies. Attend series of seminars designed to complement field assignments focusing on issues common to work setting.
*497. Independent Studies (1-3)
Prerequisites: Consent of instructor, and for human dissection, one general introductory anatomy course, HHS 401 and 402.
Independent projects in any area of physical therapy. Human dissection is available as a special study.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## COLLEGE OF LIBERAL ARTS

## Dean

Gerry Riposa

Associate Dean<br>Mark Wiley<br>Director, Facilities Planning and Technology<br>Mike Blazey<br>Development Officer<br>Annette Roth

Administrative Services Manager
Terie Bostic
Director, Learning Alliance
Bron Pellissier
Coordinator, Student Life and Development
Anna Nazarian (562) 985-4181
College Secretary
Pat Zaid
Educational Policy/Curriculum Coordinator
Cherie Dougan
Fiscal Coordinator
Dorothy Rypka

## College Office

McIntosh Humanities Building, Room 209

## Telephone

(562) 985-5381

FAX
(562) 985-2463

The College of Liberal Arts provides courses in the Humanities and Social Sciences for all university students, as well as for majors in its disciplines.
The College is also responsible for much of the General Education required of all students and provides professional training in Journalism. Through the Liberal Arts, students acquire a fundamental understanding of social and individual behavior and of cultures and belief systems in the past and present. Communication, verbal and written, in English and other languages, and across cultures, is a fundamental emphasis throughout the curriculum. Liberal Arts disciplines also emphasize the acquisition and analysis of information and its use to understand and to help resolve complex social problems. The College of Liberal Arts is the center of the university's commitment to developing greater knowledge and understanding of international and multicultural issues in the contemporary world.

## Degree Programs Offered

## Bachelor of Arts:

Anthropology, American Studies, Asian Studies, Asian American Studies, Black Studies, Business Economics Chicano and Latino Studies, Chinese Studies, Classics, Comparative World Literature, Economics, English, Environmental Science and Policy, Geography, French, French Studies, German, History,

Human Development, International Studies, Italian Studies, Japanese, Journalism, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Spanish, Communication Studies, and Women's Studies. Master of Arts:

Anthropology, Asian Studies, Economics, English, French, Geography, German, History, Linguistics, Philosophy, Political Science, Psychology (with options in general research and in industrial and organizational psychology), Religious Studies, Spanish, and
Communication Studies.
Master of Fine Arts in English
Master of Science in Psychology
Certificate Programs:
American Indian Studies, Asian Studies, Asian American
Studies, Black Studies, Japanese, Latin American Studies, Legal Studies in the Liberal Arts, Medieval and Renaissance Studies, Russian-East European Studies,
Teaching English as a Second Language, Technical and Professional Writing, and Urban Studies
Minor Programs:
American Indian Studies, Anthropology, Asian Studies, Asian American Studies, Black Studies, Business Economics, Chicano and Latino Studies, Comparative World Literature, Classical Studies, Communication Studies, English (Literature, Rhetoric and Composition, Creative Writing, or Special Emphasis), Economics, French, Geography, German, Greek, History, International Economics, Italian, Jewish Studies, Latin, Latin American Studies, Linguistics, Medieval and Renaissance Studies, Middle Eastern Studies, Philosophy, Political Science, Public Administration, Psychology, Religious Studies, Russian, Sociology, Spanish, and Women's Studies.
Language Courses:
Arabic, Chinese (Mandarin), Cambodian (Khmer), French, German, Greek, Hebrew, Italian, Japanese, Latin, Russian, Spanish, and Swahili.

## Special Facilities

The College operates special facilities including archeology, geography, language, psychology, writing, and general computer laboratories.

## Student Activities

Most of the departments in the College of Liberal Arts have either a student association or honor organization which provides students with a program of activities. Students should contact the department of their major to inquire about the kinds of organizations available to them or contact the College Coordinator for Student Life and Development, Anna Nazarian (985-4181).

The College and Associated Students promote the College Student Council with its representation from each department acting as liaison between the College administration, faculty, and members of the College's student body. The Student Council provides a forum for the development of student leadership skills.

## Internships

The College of Liberal Arts offers internships with on- and off-campus cooperating organizations designed to provide students with practice in the field under supervision. Many individual departments also offer discipline-based internships for advanced students.

## Credential Programs

Single subject credential programs are offered in English, French, German, Spanish, Japanese, and Social Science. Students who plan to teach these subjects in the secondary schools are strongly advised to consult the Credential Advisor in the appropriate program as early as possible in their studies, so that they fulfill subject matter preparation requirements while completing an undergraduate major.

## Credential Advisors

Japanese - Dr. Hsin-Sheng C. Kao (985-7530)
Social Science - Dr. Arlene Lazarowitz (985-4423)
English - Kathleen DiVito (985-4220)
French, German, Spanish - Dr. Griselda Sasayama (985-4319)
Latin - Dr. Elaine Wida - (985-8660)

## Courses (C/LA)

## LOWER DIVISION

## 190. Special Topics (1-6)

Topics of special interest in the liberal arts.
Topics will be announced in the Schedule of Classes each semester. May be repeated to a maximum of 6 units with different topics in the same semester.
195. Introduction to the Learning Community-Transition to College Success (1)
Prerequisite: Acceptance into the Learning Alliance Program. Provides members of Learning Alliance with introduction to learning community. Addresses scholarly and academic research skill development, literacy in basic computer skills, methods to integrate two disciplines featured in paired courses, and how to develop a personal academic plan. Initiates community volunteer and service learning requirement.
Letter grade only (A-F).

## 230. The Home in Comparative Perspective (3)

Prerequisite: Completion of GE Foundation.
Explores how the term "home" has been deployed in a number of different historical, political, social, economic, and geographical contexts. Analysis of primary documents and secondary texts. Conduct independent research and also explore personal meanings associated with the term "home."

## 250. Elementary Statistics (4)

Prerequisites: Knowledge of mathematical procedures usually covered in elementary high school algebra.
Introduction to descriptive and inferential statistics and their applications in social and behavioral science research; performance of statistical exercises by interactive computer. Emphasis upon knowledge of which statistical tests to use and how to interpret their results.
Not open to students with credit in ANTH 302, MATH 180 or PSY 110. (Discussion 3 hours, laboratory 2 hours.) Same course as HDEV 250.

## UPPER DIVISION

## 305. British Life and Culture (3)

Offers in-depth information on a wide range of social, artistic, and intellectual issues relevant to contemporary England. Although course is geared to students participating in the London Semester Program, materials covered are closely related to many topics covered in classes offered during students' other work on campus. Credit/No Credit grading only.

## 314I. Introduction to Contemporary Europe (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper-division standing.
Interdisciplinary introduction to contemporary European cultures and related issues through a combination of travel and study. Students will be introduced to some principles and methods useful for analyzing cultures and their own interactions with them.
Same course as RGR 314I.

## 315I. Contemporary European Society (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper-division standing.
Interdisciplinary approach to understanding cultural and political developments in contemporary European societies. Although study of history serves as foundation of course, perspectives and methodologies of several other social science disciplines are important component of course.
Same course as RGR 3151.

## 485. Oral History Methods (1)

Through a series of workshops and through field experience, skills in oral history developed which enable students to use oral history either for own personal use in family history or for class projects.
Same course as HIST 402.

## 490. Special Topics (1-3)

Topics of special interest in the liberal arts for intensive study.
Topics will be announced in the Schedule of Classes each semester. May be repeated to a maximum of 9 units with different topics.

## 491. Special Topics (2)

Topics of special interest in the liberal arts for intensive study.
Topics will be announced in the Schedule of Classes each semester.

## 495. Social Science for Teachers (3)

Prerequisites: Students must have completed all coursework in the Social Science Subject Matter Program.
Capstone course for students in Social Science Subject Matter Program, offered just prior to student teaching. Examination of issues in social science education in accord with topics highlighted in the California History/Social Science Framework.
A grade of " B " or better is required for advancement to student teaching. Letter grade only (A-F).
496A./596A. Interdisciplinary Research Seminar (3)
Prerequisite: Consent of Instructor.
Intensive reading and discussion of the literature, methods and current issues in interdisciplinary topic in humanities and social sciences.
May be repeated to a maximum of 6 units with different topics in different semesters.
496B./596B. Interdisciplinary Research Seminar (3)
Prerequisite: CLA 496A/596A and consent of Instructor.
Intensive research on interdisciplinary topic in humanities and social sciences.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 498. Directed Studies in Oral History (1-6)

Consent of faculty required.
Directed study on a research topic using methodology of oral history.
May be repeated to a maximum of 6 units. Same course as HIST 4980.

## GRADUATE LEVEL

## 590./490. Special Topics (1-3)

Topics of special interest in the liberal arts for intensive study.
Topics will be announced in the Schedule of Classes each semester. May be repeated to a maximum of 9 units with different topics in different semesters.
596A./496A. Interdisciplinary Research Seminar (3)
Prerequisite: Consent of Instructor.
Intensive reading and discussion of literature, methods and current issues in interdisciplinary topic in humanities and social sciences.
May be repeated to 6 units with different topics in different semesters.
596B./496B. Interdisciplinary Research Seminar (3)
Prerequisite: CLA 496A/596A and consent of Instructor.
Intensive research on interdisciplinary topic in humanities and social sciences.
May be repeated to 6 units with different topics in different semesters.

## COLLEGE OF NATURAL SCIENCES AND MATHEMATICS

## Dean

Laura Kingsford
Associate Dean for Curriculum and Instruction Henry C. Fung
Associate Dean for Facilities
Robert L. Loeschen
Administrative Services Manager
Henry Wu
Assistant to the Dean
D. Jeane Bright

College Office
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## Departments

Biological Sciences (562) 985-4806
Editte Gharakhanian, Chair
Chemistry and Biochemistry (562) 985-4941
Douglas McAbee, Chair
Geological Sciences (562) 985-4809
Stanley C. Finney, Chair
Mathematics and Statistics (562) 985-4721
Robert A. Mena, Chair
Physics and Astronomy (562) 985-4924
Patrick F. Kenealy, Chair
Science Education (562) 985-4801
Maureen M. McMahon, Chair
Student Access to Science and Mathematics Center

## Co-Directors

Roger D. Bauer
Henry C. Fung
Associate Director
Jessé Ramirez
Office
FO5, Room 109
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(562) 985-4682 / (562) 985-5104
n a world where science plays an increasingly important role and where an understanding of the sciences is essential for a participating and informed citizenry, the College of Natural Sciences and Mathematics provides quality educational opportunities in the life, physical sciences, and mathematics. Students are provided a broad-based, fundamental education in the natural sciences and mathematics, and are challenged to think critically, analytically, and creatively. Alumni of the College demonstrate that science and mathematics graduates are well-prepared to enter graduate and professional schools or to assume responsible positions in industry or government. Employment opportunities for students with backgrounds in science and mathematics are traditionally excellent.

The College is dedicated to the concept that a university has a special responsibility toward academic excellence and the advancement of knowledge. The faculty and staff of the Departments of Biological Sciences (including the former departments of Anatomy and Physiology, Biology, and Microbiology), Chemistry and Biochemistry, Geological Sciences, Mathematics and Statistics, Physics and Astronomy, and Science Education are committed to providing an outstanding educational experience for all students.

The College takes its responsibilities in teacher preparation in the sciences and mathematics very seriously. It participates in projects that provide a stronger, more rigorous, and more engaging set of teacher preparation programs at CSULB. With funding from the National Science Foundation, NASA, and the Knight Foundation, and in collaboration with Colleges of Education and Liberal Arts, Long Beach Unified School District, and Long Beach City College, science and mathematics faculty members are working to enrich and align teacher preparation coursework and internship opportunities.

## Degrees Offered

Five departments within the College of Natural Sciences and Mathematics offer both the Bachelor of Science and Master of Science degrees. The Department of Science Education offers the Master of Science degree. The Departments of Chemistry/Biochemistry, and Physics/ Astronomy also offer the Bachelor of Arts degree. Each degree has unique requirements and students should refer to the particular department's section of this Catalog to determine specific requirements. Ideally, all students participate in the Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in Natural Sciences and Mathematics for transfer students). Programs offered each June-July (for those entering in August) and January (for those entering in January). A department advisor will be available to assist in developing an appropriate academic plan consistent with career goals. During the semester, students may obtain academic advising by contacting the appropriate advisor(s) in the department offering the chosen degree program.

## Student Research Opportunities

Faculty members in the College involve more than 200 students annually, both undergraduate and graduate, in a wide variety of research activities. Many of these students are supported by research grants, especially during the summer months. Each year many of these students present the results of their research at scientific conferences. It is not unusual for a student to co-author an article appearing in a major scientific journal.

The faculty's commitment to these students is based on the knowledge that involvement in scientific research makes the study of science more real and provides strong motivation for the student to pursue a career in science. Since the anticipated need for scientists far exceeds the enrollment of science majors, we are committed to meeting the short-fall by making the study of science at CSULB as "real world" as possible.

## Jensen Student Access to Science and Mathematics (SAS) Center and Programs Offered

A student center (FO5-109) adjacent to the Dean's office is dedicated to promoting success for students who pursue majors in the College and those who take courses in its departments. The Center also facilitates several externally funded programs including The National Institutes of Health (MARC, MSD, and Bridges to the Baccalaureate), and National Science Foundation (CRUI, AMP, and Noyce). The Center provides space for studying, tutoring, mentoring, computer access, and meeting sites for student-centered activities. The SAS Center also serves as the resource center for health profession advising, graduate school opportunities, and summer research opportunities and fellowships.

SAS coordinates and assures effective integration of all of our mentoring, enrichment, and outreach programs - including those based on undergraduate research. SAS is dependent on external funding for its success.

There are a host of activities and programs that strive to involve students and promote their success in science and mathematics. Several federally funded programs focus on underrepresented students and address the diversity of our campus. In addition to fostering involvement of students in science and mathematics, they feature an ethnic identity that provides a unique encouragement for 250 of our science majors.

MARC/MBRS Programs. The College hosts both programs funded by The National Institutes of General Medical Sciences: Minority Access to Research Careers (MARC) and Research Institute for Scientific Enhancement (MBRS-RISE). Both programs have the goal of increasing the number and quality of students from historically underrepresented ethnic groups who pursue careers in scientific research. The 30 students supported by these programs carry out state-of-the-art biomedical research projects in conjunction with a member of the faculty. Virtually all of these students continue study toward advanced degrees in science. The MARC program is an honors program (GPA 3.0) for upper division students, while the MBRS-RISE program can support students as early as the freshman year and also upper division transfer students. As a result of their research activities, most students present papers at scientific conferences and often
co-author publications appearing in leading scientific journals. In addition to their research involvement, MARC/MBRSRISE students are active in various outreach and mentoring activities.

Beckman Scholars Program. In 2003, CSULB was selected as one of 13 institutions nationwide to be the recipient of these prestigious Beckman Scholars Awards. The goal of the Beckman Scholars Program at CSULB is to advance the education, research training, and personal development of students who have the potential to achieve distinction in their academic field, as well as become outstanding leaders in their careers and professions. Support is provided for four students working toward bachelor's degrees in chemistry, biology, or physics in the form of student stipends, laboratory supplies and funds for travel to appropriate scientific meetings. Depending on the laboratory chosen for the research experience, students will receive rigorous training by faculty members in the use and applications of a variety of different techniques involved in nucleic acid research, protein biochemistry, biophysics, etc. The program will also provide counseling and career opportunities for entrance into higher degree programs in the sciences.

Bridges to the Baccalaureate Program. This program is funded by the National Institutes of General Medical Sciences and its goal is to provide historically underrepresented community college students with research opportunities in the biomedical sciences and to facilitate their seamless transition into baccalaureate granting institutions.

G-DEP Program. The Geoscience Diversity Enhancement Program (G-DEP) is an innovative, collaborative partnership between CSULB Departments of Geological Sciences, Geography, and Anthropology, and several community colleges and local high schools to improve the research and educational experiences of underrepresented students in geoscience (geologic, physical geographic, archaeologic and environmental sciences disciplines). The goals of GDEP are to (1) increase the number of underrepresented students who have a broad educational and research experience in the geosciences; (2) enhance the quantity and quality of Geoscience research and teaching by faculty members from the University, community colleges and high schools; (3) increase the awareness by community college and high school students of the field of geoscience, and related research careers and educational requirements; (4) create a seamless transition of underrepresented students from community colleges to study geosciences at the undergraduate level; and (5) increase the number of geoscience majors who are retained in their disciplines.

AMP Program. The College hosts the National Science Foundation's Louis Stokes Alliance for Minority Participation (AMP) program. Its goal is to improve the mathematics and science preparation for historically underrepresented students majoring in the sciences, mathematics, and engineering and to enhance their opportunities for graduate studies.

Science Enrichment and Peer Mentor Programs. Peer mentoring provides our college students opportunities for tutoring to strengthen their academic and communication skills. This program is designed to provide first time freshmen in the College of Natural Sciences and Mathematics with the guidance and personal support that are vitally important to
their success at CSULB. This program allows students to enroll in classes appropriate for their major and background, provides them with enriched learning experiences, and peer role models during their first academic year. The Science Enrichment Program begins the week prior to the start of the fall semester. In order to be part of the program, students must be declared science or math majors and be enrolled in the presemester University 100 course.

Honors in Biological Sciences. This program was initiated by a grant from the Howard Hughes Medical Institute. Open to students with majors or career goals in the life sciences or related fields, it features an honors curriculum including courses in bioinformatics and research design as well as undergraduate research leading to a senior honors thesis and presentation at scientific conferences.

Health Professions Advising Office (HPAO). The Health Professions Advising Office (HPAO) provides a wide range of advising and support services designed to meet the needs of CSULB students as they navigate through the often-complex process of preparation and application to professional schools. The HPAO offers individual counseling, academic planning, application assistance, and many other resources designed specialty for students interested in medicine, dentistry, veterinary, pharmacy, optometry, podiatry, chiropractic, physician assistant, physical therapy, and graduate nursing.

## The Electron Microscopy Facility

The study of the natural sciences requires observation of the macroscopic, microscopic, and sub-microscopic character of our universe. With this in mind, the College has established a modern Electron Microscope (EM) Facility which is used by several undergraduate courses in addition to undergraduate and graduate research projects. The pride of the EM Facility is the Joel-1200EXII transmission electron microscope (TEM), obtained through a National Science Foundation instrumentation grant. The Joel-1200EXII has a resolution of 0.14 nm and a magnification range of from 50 to 1,000,000 times. The EM Facility also houses additional TEMs and an AMR 1000 scanning electron microscope. The latter will be upgraded to include analytical capabilities.

## Student Organizations

The College of Natural Sciences and Mathematics Student Council sponsors annual events including: a fall open house and spring picnic, Science Career Days, and the Nobel Laureate Speaker series. Six departmental associations plan various social and academic-related programs that offer peer support, as well as opportunities for students and faculty to interact outside of the classroom.

Four other student-led groups offer activities for students who are planning careers in one of the health professions (medicine, dentistry, etc.). The Organization of PreProfessional Students (T.O.P.P.S.) and Association of Pre-Dental Students (A.P.D.S.) have speaker series with representatives from professional schools; the group also holds social functions and provides a peer advising network. Chicanos/Latinos for Community Medicine (CCM) sponsors community outreach activities, an annual workshop on interviewing techniques, and an annual conference on applying to medical/professional schools.

## Southern California Marine Institute (SCMI)

The Institute operates a number of research vessels, and provides the mechanism whereby students from CSU Ocean Studies Consortium campuses at Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Diego, and San Marcos, as well as Occidental College and the University of Southern California can share courses and degree programs. In addition, Institute staff conduct research and facilitate the research of CSU faculty. The major focus is on harbors and coastal areas, with emphasis on environmental issues.

## California Desert Studies Consortium

CSULB participates in the California Desert Studies Consortium, which has a Desert Studies Center in the heart of the Mojave Desert at Soda Springs near the town of Baker. The surrounding area consists of typical Mojave Desert with dry lakes, sand dunes, and mountain ranges; it is the gateway to Death Valley and the Kelso Dunes. The Center has excellent facilities for teaching field classes and for research. California State Universities at Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, and San Bernardino are the Consortia members.

## Courses (NSCI)

## LOWER DIVISION

## 200. Introduction to Computer Methods in Science (2)

Prerequisites: Major in the College of Natural Sciences and Mathematics; and MATH 119A or MATH 122 or consent of instructor.
Introduction to computer methods used in collecting, analyzing, and presenting scientific data. Introduces word processing, spreadsheet analysis, and elementary programing.
Credit/No Credit grading only. (Lecture 1 hr., discussion 1 hr.) Course fee may be required.

## UPPER DIVISION

## 308. Community and Careers in the Health Professions (3)

 SPrerequisites: Completion of Foundation Courses, one or more Explorations Courses, upper division status, and 3 units of Natural Sciences coursework.
Service-learning, capstone course designed to develop students' abilities to critically think and analyze issues concerning health care in communities and the roles of professionals involved in the delivery of that care. Topics concerning biomedical ethics are also included. Students will be required to provide service in a community agency providing health care. Guest speakers, participate in discussions, analyze and reflect upon their volunteer experiences and how these experiences relate to in-class topics. Enhance oral and written communication skills, better define career goals, provide understanding of community needs and foster greater civic responsibility.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 3091. Women in Science (3) F,S

Prerequisites: Completion of the G.E. Foundation, six-units of general education science courses, upper-division standing, and consent of instructor.
Increase awareness of the accomplishments of women in natural science, engineering, and mathematics in their socio-historical context; and the obstacles that have precluded easy access to careers for women in these areas. Specific topics include historical roles of women in science, contributions of celebrated women
scientists, and women scientists who made significant contributions but were ignored or devalued by their scientific peers. Issues include stereotypes and images of women in science: cultural, societal, and institutional obstacles to the entry and success of women in science; and ways of overcoming these obstacles. Disciplines included are science, history, and sociology.
Letter grade only (A-F). Same course as W/ST 309I. (Lecture 3 hrs.)

## 333. Natural Science Field Studies (2)

Prerequisites: All with a grade of "C" or better: GEOL 106 or 102 and either 104 or 105; CHEM 100 or 105 or 111A; PHSC 112; BIOL 200; and upper-division standing.
Provides field experience in observation, interpretation and recognition of natural processes and features in the varied natural environments of southern California. Team-taught by a geologist and a biologist. In-class lectures and discussions provide pertinent theoretical and practical knowledge prior to each field trip. Topics of discussion and study focuses on geological and biological aspects of selected field sites, and on underlying physical and chemical relationships involved at each site. Topics included: origin and recognition of faults; earthquake generation and hazards; geologic history of California; effect of mountain-building on climate, nearshore ocean processes, biology of nearshore, marine, estuarine and wetlands habitats; coastal, desert and mountain ecosystems; influence of rock/sediment on plant growth and diversity; geology and biology of lakes; and ground water and surface water flow, storage and contamination.
Letter grade only (A-F). (Lecture 1 hr ., laboratory and required field trips, 3 hrs.)

## 375I. Science and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; 3 units of general education natural science courses.
The nature of science by studying major discoveries in the life and physical sciences that currently have an impact on our lives. In addition to the basic science that contributed to these technological advances, the historical, political, philosophical, and economic contexts of these events will be examined. Included will be discussions of what is science, how is it done, and is it beneficial or destructive? Traditional views of science will be challenged and the social/cultural aspects will be explored. Recent discoveries and the underlying basic science also will be critically evaluated. Demands placed on society by rapidly advancing technology.
Letter grade only (A-F). (Lecture 3 hrs)

## 490. Special Topics in the Natural Sciences (1-3)

Prerequisites: At least upper division standing in the College of Natural Sciences and Mathematics and consent of instructor.
Faculty and student discussions and analysis of a current topic in the natural sciences.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 1-3 hrs.)
491. Special Topics Laboratory in Natural Science (1-2)

Prerequisites: Senior standing in the College of Natural Sciences and Mathematics and consent of instructor.
Topics from selected areas of the natural sciences. Content varies from section to section.
May be repeated to a maximum of 2 units toward any single degree. Letter grade only (A-F). (Laboratory 3-6 hrs.)

## 492. Internships In Natural Science (3)

Prerequisites: Major in the College of Natural Sciences and Mathematics, completion of 9 units of upper division science coursework, a 2.5 GPA overall or 2.75 GPA in the student's major, and consent of instructor prior to registration.
Qualifying students placed in a major or career-related assignment in private industry or at a public agency. May be placed in either a volunteer or paid work assignment. Teacher aide positions may be used for students interested in pursuing a career in science education in K-12 schools.
Learning assignments will be arranged through the Career

Development Center and the instructor. Final written report required. Class attendance and internships to be arranged by the instructor. Minimum of 120 hours of field experience required. Credit/No credit grading only.

## 496. Investigations in Natural Sciences and Mathematics (1-3)

Prerequisites: Consent of instructor.
Supervised study of current topics in the natural sciences or mathematics by a faculty member in the College of Natural Sciences and Mathematics.
Letter grade only (A-F).

# UNIVERSITY COLLEGE AND EXTENSION SERVICES 

Dean<br>Marilyn Crego<br>Associate Dean<br>Carolyn Shadle<br>Director of Programs<br>Sheila Thomas<br>Chief Financial Officer<br>Michael R. Jones<br>Director of Technology and Development<br>Mat Kaplan<br>Director of American Language Institute<br>Debra Jonas<br>Director of the Center for International Trade and Transportation<br>Marianne Venieris<br>College Office<br>6300 State University Drive, Ste. 104<br>UCES Customer Center<br>800/963-2250<br>Email<br>info@uces.csulb.edu<br>Website<br>www.uces.csulb.edu

University College and Extension Services (UCES) is one of the eight academic colleges and the selfsupport community outreach branch of the university. The college provides additional access to CSULB's exceptional academic programs and educational resources by offering over 550 credit and professional development (noncredit) programs every semester. The programs are designed to meet the personal and professional development needs of more than 30,000 individuals each year. UCES identifies and addresses the educational and training needs most relevant to its customers. Its capabilities extend internationally.

## Why UCES Is Different - Access and Opportunity

University College and Extension Services is different from CSULB's other academic colleges because it is not focused on one specific subject area, such as arts or sciences. Its purpose, aligned with the CSU Cornerstones Report, is to "provide increased access to graduate education and continuing education in programs central to the mission of the university, to lifelong opportunities for our students, and to the continued health of California's community and economy." (CSU Cornerstone Principle 6a)

This means that UCES provides a variety of ways to bring people to the university, and to bring the university and its programs to the people, through the innovative delivery of many different types of courses and programs across diverse subject areas. UCES' unique position as both an academic college and a community outreach entity means that partnerships and collaboration - with the university, businesses, organizations, and community leadership - are an integral part of its operation. Fostering collaborative academic initiatives, both credit and professional development (noncredit) has always been one of the highest priorities of the UCES administrative leadership.

UCES programs do not receive state funding and are supported entirely by student fees.

## The University College Milestone

Many universities across the U.S. have been changing the name of their Extension divisions to a name that better describes campus-approved, high quality credit course offerings taught by resident faculty. At CSULB, University Extension Services became University College and Extension Services in 1994. CSULB is the first in the CSU system to have a University College and an advisory committee to provide for an open line of communication with the faculty, students, and administration. As an academic college, UCES makes it easier for the campus to offer credit courses and degree programs to expanded constituencies in our community.

When students enroll in a credit course through University College, they will know that it is taught by resident faculty with the same course of study and academic expectations associated with state supported courses.

## UCES Goal

To provide individuals, institutions, organizations, and the global community with access to cost-effective, quality educational opportunities by offering the best educational choices for the best value.

## Programs

UCES maintains a customer-focused market-driven approach to developing and delivering programs. As a result, the programs may change often to adapt to the
training and educational needs of the marketplace. UCES offers both professional development (noncredit) and credit programs, in many different subject areas. Whether the program is credit-bearing, or not for university credit, UCES strives to provide the following features in every course:

- Quality curriculum
- Expert instructors
- Convenient days/times
- Affordable fees and payment plan options
- Fast, easy registration

In addition, UCES provides companies, organizations, and government agencies with customized professional development programs for employees at their work site or at CSULB.

For a free catalog of the latest comprehensive program listings and descriptions, call the UCES Customer Center 800/963-2250 or visit the web site http://www.uces.csulb. edu.

Following is a just sampling of the many types of programs offered by UCES.

## Professional Development Certificate Programs Offered

Human Resource Management
Professional Coaching and Mentoring
Professional Meeting and Events Planning
Basic Applied Forensic Science and Crime Analysis
Engineering and Architectural AutoCAD
IT Project Management
Windows 2000/.NET Network Specialist (MCSE/MCSA)
Oracle Internet Applications Developer Specialist
Writing Workshops
Professional Designation Programs and Industry-
Specific Exam Prep Programs
Global Logistics Specialist
Computer Applications, including: A+, CISCO, Network+, LINUX, Windows 2000, etc.
The SHRM Learning System (PHR/SPHR exam prep)

## On-line Programs

Accounting Fundamentals
Principles of Sales Management
Fundamentals of Supervision Management
Managing Technical Professionals
Project Management Fundamentals
Grant Writing Workshop
Career Development
Engineering
Finance
Many courses for university credit can be taken on-line through UCES.

## Degrees Offered

Degree programs offered by UCES are in partnership with other CSULB colleges.

- Master of Business Administration (Fully Employed MBA for Working Adults)
- Master of Science in Engineering Management
- Bachelor of Arts in Family and Consumer Sciences, Option: Child Development and Family Studies
- Master of Arts in Global Logistics
- Master of Science in Health Care Administration
- Master of Arts in Kinesiology, Option: Sport Management
- Master of Arts in Kinesiology, Option: Pedagogy
- Master of Public Administration
- Master of Social Work
- Bachelor of Science in Occupational Studies


## Credit Certificates Offered

- BCLAD
- Aerospace Manufacturing Engineering
- Phlebotomy


## The American Language Institute

The American Language Institute provides English as a Second Language instruction to international students. ALI offerings include long-term and short-term programs, and credit and non-credit courses. Programs offered through the ALI include the Intensive English Program, a non-credit program offered year-round, 3 sessions per year, in which students are in class up to 25 hours per week.

## Open University

Open University provides an opportunity for those people who are not currently admitted to and/or registered at CSULB to enroll in most courses offered by the university. Enrollment is on a space-available basis, and subject to approval of the instructor and department chair. Students receive Open University Special Sessions credit. For more information, call the UCES Customer Center at 800/963-2250.

## Centers/Consortiums

Center for International Trade and Transportation (CITT)
Southern California Process Improvement Network (SPIN)

## College Facilities

- Full service award-winning video and multimedia production facility located on campus, including a 2200 squarefoot studio, featuring the leading computer animation software
- Computer labs both on and off campus, equipped with the latest hardware and software - UNIX, IBM-PC, Macintosh, Silicon Graphics, Windows 2000, GIS
- Executive conference and training rooms


## Continuing Education Units

Continuing Education Units (CEUs) are a permanent record of attendance in professional development (noncredit) programs. They are awarded by The American Council on Education (ACE) and administered through UCES. CEUs can enhance ones resume and provide another opportunity to showcase a commitment to your own professional development. CEUs for specific professions are also available.

2006 marks the 35th anniversary of UCES at CSULB. Starting with the Fall semester, the college will be celebrating with a series of events and special offers to current students and alumni. Please check www.uces.csulb.edu for information.


## ACCOUNTANCY <br> College of Business Administration

Department Chair<br>Steven A. Fisher<br>Department Office<br>College of Business Administration (CBA) 411<br>Telephone<br>(562) 985-4653<br>Website<br>www.csulb.edu/depts/accounting/<br>Faculty<br>\section*{Professors}<br>Michael Chase, Michael Constas, David Bojarsky, Steven Fisher, Debra Grace, Herbert G. Hunt, III, John Lacey, Sitikantha Mahapatra, Jae K. Shim<br>\section*{Associate Professor}<br>Loc Nguyen<br>Assistant Professor<br>Jian Zhang<br>Administrative Support Coordinator<br>Kellee Zbornak

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

1. Lower Division: ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115, and PHIL 160.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score (70\%) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300; ACCT 320; ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after upper division prerequisite core courses have been completed (ACCT 320, FIN 300, MGMT 300, MKTG 300, IS 301).
C. Completion of Accountancy Option requirements.
4. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in Accountancy (code ACCTBS01) (120 units)

The Accountancy curriculum is designed to meet the general education goals of those entering the accounting profession. It satisfies the requirements established by the American Institute of Certified Public Accountants and may be used to meet educational requirements for the California CPA Certificate. The accounting program develops an understanding of an organization's management information system on a broad base of general education and business administration courses. The program is carefully planned and rigorous, building the conceptual, analytical, and communication skills necessary to succeed in the accounting profession. It prepares students for careers in all areas of accounting, including the necessary qualifications for professional examinations such as the C.P.A., C.M.A., C.I.A.

## Requirements

1. ACCT 300A-B, 351, 400, 470, 480
2. One course from ANTH, PSY, or SOC

## Courses (ACCT)

## LOWER DIVISION

## 201. Elementary Financial Accounting (3)

Introduction to financial accounting, practice.
For business majors. Laboratory and/or class computer applications required.

## UPPER DIVISION

## 300A-B. Intermediate Accounting (4,4)

Prerequisites: 300A: ACCT 201 or equivalent with a grade of " $C$ " or better; 300B: ACCT 300A with a grade of "C" or better.
Accounting theory including recording, valuation, and statement presentation of assets, liabilities, capital, and earnings. Funds statements, financial analysis, compound interest theory, and applications.
Laboratory and/or class computer applications required.

## 310. Cost Accounting for Managers (3)

Prerequisites: ACCT 201 or equivalent.
Use and interpretation of financial statements. Evaluation of accounting information systems. Accounting for and analysis of costs. Managerial use of accounting data for planning and decision making.
Not open to accounting majors for course or unit credit. Laboratory and/or class computer applications required.

## 320. Cost Accounting (4)

Prerequisites: ACCT 201 or equivalent with a grade of " C " or better.
Theory and practice of cost accounting. Managerial use of cost accounting data for planning, controlling and decision making. Emphasis on cost accumulation and management information systems.
Laboratory and/or class computer applications required.

## 351. Federal Tax Law II (4)

Prerequisites: any upper division accountancy course with a grade of "C" or better.

Federal income taxation of partnerships, corporations, and s corporations. Personal and family tax planning and ethics.
Laboratory and/or class computer applications required. Not open for credit to students with credit in ACCT 451.

## 400. Advanced Accounting (4)

Prerequisites: ACCT 300B with grade of "C" or better, IS 301.
Specialized problems in partnership and corporate accounting. Consolidations, foreign currency transactions, and translations. Fund accounting and selected topics.
Laboratory and/or class computer applications required.

## 465. International Accounting (4)

Prerequisites: Any 300-level accounting course with grade of "C" or better, IS 301.
Contemporary accounting theory and practice from an international perspective. Comparative accounting systems in various countries based on prevailing practice in the United States. Analysis of international accounting and auditing standards.
Laboratory and/or class computer applications required.

## 470. Auditing (4)

Prerequisites: ACCT 300A, 300B, 320 with grades of " $C$ " or better, IS 301.

Problems of verification, valuation and presentation of financial information in reports covered by opinion of independent public accountant. Major concepts of operational auditing and relationship to independent audit. Public accountant and internal auditor responsibilities. Rules of professional conduct.
Laboratory and/or class computer applications required.
480. Accounting Systems and Data Processing (4)

Prerequisites: IS 300, ACCT 300B and 320 with grades of "C" or better, IS 301.
Familiarization to accounting information systems development process. Analysis, design, development, and implementation of accounting information systems. Automation of accounting information systems studied through use and application of computers.
Laboratory and/or class computer applications required.

## 493. Accounting Internships (3)

Prerequisite: ACCT 300B, Accounting GPA 3.0, overall GPA 3.0.
Real world accounting experience by working in public accounting or accounting divisions of private industry or governmental agencies. Class seminar analysis and evaluation of academic theory in terms of the real world environment.

## 495. Selected Topics (I-4)

Consent of instructor, IS 301.
Intensive study of current topics in accounting.
May be repeated for a maximum of 8 units. Topics to be announced in the Schedule of Classes.

## 497. Directed Studies (I-4)

Prerequisites: Consent of instructor and department Chair, on Dean's List, Accounting GPA 3.0.
Advanced individual projects, study, and research in accounting.

## GRADUATE LEVEL PREREQUISITE

## 500. Managerial and Financial Accounting (3)

Prerequisite: MBA standing required.
Evaluation of accounting systems, preparation of financial statements, and computer information processes. Analysis and interpretation of accounting information as an aid to business decisions.
Laboratory and/or class computer applications required. Letter grade only (A-F).

## GRADUATE LEVEL

## 610. Advanced Cost Accounting, Budgeting and Control (3)

Prerequisite: ACCT 500 or equivalent with a grade of "C" or better.
Problems in planning, budgeting and cost control of decision making using a quantitative analysis approach. Emphasis on evaluation of the accounting information system.
Laboratory and/or class computer applications required. Not open for credit to students with credit in ACCT 510. Letter grade only (A-F).

## 620. Contemporary Problems in Management Accounting (3)

Examination of the literature on profit planning, control, and decision making. Current problems in management accounting. Behavioral implications of management information systems. Quantitative approaches to managerial accounting.
Letter grade only (A-F).

## 630. Accounting information Systems (3)

Information requirements and transaction processing procedures relevant to integrated accounting systems. Computer systems analysis, design, and controls.
Letter grade only (A-F).

## 640. Tax Research and Planning (3)

Study of income tax law, uses in researching problems arising under federal tax laws. Application of research techniques to compliance and tax planning problems. Analysis IRS procedures related to audits, tax collections, criminal prosecutions and federal tax litigation.
Letter grade only (A-F).

## 650. Accounting for Governmental and Not-for-Profit

 Organizations (3)Financial and managerial accounting concepts as they apply to organizations focused on providing service rather than generating profit.
Letter grade only (A-F).

## 660. International Accounting (3)

International accounting theory and practice. Comparison of United States GAAP and auditing standards with IAS and practice in other countries.
Letter grade only (A-F).

## 670. Contemporary Problems in Financial Reporting

 (3)Examination of Generally Accepted Accounting Principles and literature dealing with financial accounting and reporting. Current issues facing corporations and the accounting profession.
Letter grade only (A-F).

## 680. Financial Statement Analysis (3)

Understanding and using financial reporting to make investment and lending decisions.
Letter grade only (A-F).

## 695. Special Topics (1-3)

Prerequisites: Consent of instructor.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisite: MBA standing; consent of instructor.
Individual study under faculty direction.
Letter grade only (A-F).

## AEROSPACE STUDIES

College of Health and Human Services

## U. S. Air Force Reserve Officers Training Corps (AFROTC)

Through arrangements with Loyola Marymount University (LMU) in west Los Angeles, students may participate in the Air Force Reserve Officer Training Corps (AFROTC) program. AFROTC offers a variety of two, three, and four year scholarships, many of which pay the full costs of tuition, books, and fees. Successful completion of as little as four semesters of AFROTC academic classes and leadership laboratories can lead to a commission as a second lieutenant in the United States Air Force.

Classes consist of one hour of academics and two hours of laboratory for freshmen and sophomores and three hours of academics and two hours of laboratory for juniors and seniors. The academic hours earned can normally be counted as elective credit toward graduation. All AFROTC classes and laboratories are held on Fridays to better accommodate students commuting from other colleges and universities. Currently, LMU does not charge for the courses and offers cross-town students free parking while attending AFROTC activities. Additionally, AFROTC cadets under scholarship and all juniors and seniors receive a monthly tax-free stipend.

For more information, contact the Loyola Marymount University Department of Aerospace Studies (AFROTC) at (310) 338-2770.

# AMERICAN INDIAN STUDIES <br> College of Liberal Arts 

Director<br>Troy Johnson<br>Telephone<br>(562) 985-8203<br>Faculty<br>Professors<br>Richard Danay, Troy Johnson, Craig Stone, Gabriel Estrada<br>Academic Advisor<br>Troy Johnson<br>Interdisciplinary Degree Advisor<br>Troy Johnson<br>Department Secretary<br>Espie Contreras

Students desiring information should contact the department office for referral to one of the faculty advisors. American Indian Studies is an interdisciplinary study of the American Indian. The American Indian Studies program options are designed to provide students with the various fields of knowledge of American Indian Studies with opportunities for emphasis on particular topical, cultural and geographical interests.

The courses in the program offer two distinct directions: (1) classes that contain course content solely directed toward American Indian culture in the North Western Hemisphere; and (2) courses that contain sections or units on American Indians that have content relevant to understanding the American Indian experience.

American Indian Studies is governed by a committee of faculty representing a variety of schools and departments throughout the University.

In addition to offering a broad liberal education focusing on American Indian culture, traditions, and social issues, the various program options offer a useful background for careers in such diverse fields as Law, Administration, American Indian Affairs, Counseling, Teaching, Social Work, Government, Museums and Public Service.

Students may pursue a program in American Indian Studies through a minor, a certificate, a concentration in American Indian Studies within the Liberal Studies Degree Program, or an individually-designed undergraduate special major program under the Special Programs Office.

## Bachelor of Arts in Liberal Studies Track II (code L/STBA02) (120 units)

For advisement, contact the Liberal Studies Advisor in the College of Education.

## American Indian Studies Concentration

A minimum of 24 units of which 15 must be at the upper division (300-400) level. A maximum of 12 units of course work used to meet requirements of the core may be used to satisfy the requirements of the concentration. In such "double-counting," one course may satisfy two requirements but the units apply to total degree requirements only once. Unit requirements in some concentrations exceed the 24 unit minimum; no concentration requires more than 32 units. Only one course may be taken Credit/No Credit.

## Interdisciplinary Studies for American Indian Studies

## Bachelor of Arts (code IDSCBA01) Master of Arts (code IDSCMA01)

The Interdisciplinary Studies Program at CSULB allows students to design unique courses of study leading to a Bachelor's or Master's degree. Students wishing to pursue a self-designed Bachelor of Arts Degree or a Master of Arts degree with a focus on American Indian Studies should contact the Interdisciplinary Studies Progrm Office, Academic Services, Room 14, 562-985-7194 for advisement.

Applications for the Interdisciplinary Studies Major are reviewed by the Director of the Interdisciplinary Studies Program and approvals are granted on a case-by-case basis.

For assistance, contact the American Indian Studies Interdisciplinary Degree Advisor, Dr. Troy Johnson in FO3-328. For an appointment, call 562-985-8703.

## Certificate in American Indian Studies (code AIS_CT01)

Students pursuing any approved degree or credential program of the University may at the same time earn a Certificate in American Indian Studies. Courses taken to meet the requirements may also simultaneously be used, where applicable, to meet General Education requirements or the degree or credential requirements of cooperating departments. Certification of successful completion of requirements will be issued upon the recommendation of the American Indian Studies Program Director.

## Requirements

1. A Bachelor's degree with a major in a traditional discipline. (Certificate requirements may be completed prior to the completion of B.A. requirement).
2. Submission of all college/university transcripts to the academic advising coordinator, who will work with the student to develop a well-integrated program of studies. Interested students are strongly encouraged to meet with the academic advising coordinator after having completed the lower division core courses.
3. A minimum of 24 units, distributed as follows:

## Required Core Courses

Lower Division Core Courses (9 units) from: AIS 101, 105, 106, 200, 208, 215.

Upper Division Core Courses ( 15 units) from: AIS 300, 319, 320, 335, 340, 361, 400, 420, 421, 485, 490, 497, 499.

## Minor in American Indian Studies (code AIS_UM01)

Requirements: A minimum of 21 units.

## Required Core Courses

Lower Division (9 units) from: AIS 101, 105, 106, 200, 208, 215.

Upper Division (12 units) from: AIS 300, 319, 320, 335, 340, 361, 400, 420, 421, 485, 490, 497, 499.

Courses (AIS)

## LOWER DIVISION

## 101. Introduction to the Study of Native American People

 (3)Corequisite/Prerequisite: Any GE Foundation course.
Examines history, culture, religion, art and societies of American Indian. Introduction to historical aspects of Native American experience and discuss these aspects of Native life as applied to contemporary American Indian issues.
Letter grade only (A-F).

## 105. American Indian History - Pre 1871 (3)

Prerequisite/Corequisite: One course from GE category A1.
Survey of histories and cultures of American Indian Peoples in North America from pre-contact to 1871 and analysis of political, cultural, legal and military relationships that developed between American Indians and foreign nations.
Not open for credit to students with credit in AIS 100.
106. American Indian History - Post 1871 (3)

Prerequisite/Corequisite: One course from GE category A1.
Survey of histories and cultures of American Indian Peoples in North America from 1871 to present.
Not open for credit to students with credit in AIS 101.
200. Contemporary Issues in American Indian Studies (3)

Analysis of major issues in contemporary American Indian affairs, politics, art, philosophy, education, reservations life, economics, government relations, Indian organizations, Indian-white relations, legal issues, land rights, media issues, Indian activist movements, and community concerns.

## 208. California Indian History (3)

Study of relationship between Indian people and various European powers that influenced the settlement of the State of California. Areas to be explored include: indigenous people of California, Spanish invasion of 1769, Mexican secularization in 1834, and seizure by U.S. in 1846.
Letter grade only (A-F).
215. U.S. Diversity and the Ethnic Experience (3)

Survey of four major ethnic groups (American Indians, African American, Latino American, and Asian American) in American society from colonial era to present. Special attention given to formation and transformation of each ethnic group and individual and collective roles in development of United States.
Open only to Integrated Teacher Education Program students. Same course as ASAM 215, B/ST 215, CHLS 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. American Indians in Cinema (3)

Examine through medium of film creation of stereotypical and positive images of Americans in cinema. Beginning with cinema in the silent period through contemporary times these images will be observed, discussed, and identified, and examined to come to a comprehensive understanding of how values of these images are created and maintained in American popular society. Discusses contemporary images created from American Indian perspective that offer different images of American Indians in society.
Class content will vary dependent on films available for instruction. Letter grade only (A-F).
319. The Ethnic Experience in the U.S. (3)

Examination of dynamics of development of our multicultural society, emphasizing study of the four distinct ethnic strands of American society (Asian American, Black American, Mexican American, and American Indian) and their role in maintenance of cultural diversity in United States.
Same course as ASAM 319, B/ST 319, CHLS 319, W/ST 319. Lecture/Discussion.

## 320. American Indian Art and Material Culture (3)

Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

## 335. American Indian Philosophies (3)

Detailed examination of American Indian tribal cultures and worldviews. Comparison of tribal philosophy and beliefs with that of western society. Special emphasis placed on traditional philosophical traditions as practiced in the cultural regions of North America and the sub-Arctic.
Letter grade only (A-F).

## 340. American Indian Literature (3)

Prerequisites: Completion of GE Foundation requirements.
Analysis of written and oral literary traditions developed by American Indians. Range of works studied are: oral history, tales, myth, song, prayer, poetry, short story, and novel.

## 361. American Indian Education (3)

Study of historical development of American Indian Education from Boarding Schools to the contemporary period with focus on selected problems in various types of schools. Overview of role of women in traditional Indians education. Changes in Indian education occasioned by contact with Europeans.
(Lecture-discussion 3 hours.)

## 400. Advanced Historiography of American Indian

 People (3)Introduction to historical writings relating to American Indians. Analyze the attitudes, assumptions, and evidence that have been used to portray American Indian people and the settling of America. Provides a foundation for understanding of how history has been shaped and will advance research skills.
Letter grade only (A-F).
420. American Indian Traditional Material Culture, Arts and Crafts (3)
Prerequisites: AIS 320, or consent of instructor.
Techniques, materials, concepts and processes in the creation of American Indian traditional arts and crafts. Selected artistic projects in the creation of tribal arts.
(Lecture-activity 6 hours.)

## 421. American Indian Fine Arts: Post 1900 (3)

Examines North American Indian arts with emphasis on major art forms of the continental U.S., Alaska, and Canada. Explores relationship between contemporary art and artists with specific attention to aesthetic, theoretical, historical, religious, and philosophical aspects.
Letter grade only (A-F).

## 485. Federal Indian Law (3)

Designed to provide an in-depth study of legal relationship between the United States, Indian people, and Indian Nations. Legal development will begin with first contact between Indian people and English colonists and continue to the present time.
Letter grade only (A-F).
490. Special Topics in American Indian Studies (1-3) Prerequisite: Consent of instructor.
Topics of current interest in American Indian studies selected for intensive development.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.

## C. American Indians in Cinema and Literature

## 497. Fieldwork in American Indian Studies (1-3)

Prerequisites: Upper division standing, consent of instructor.
Supervised experience relevant to specific aspects of American Indian community in off-campus setting. Project must be related to student's major or certificate program. Regular meetings with faculty supervisor and written reports required.
May be repeated to a maximum of 6 units.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed Studies to permit individual students to pursue topics of special interest.
May be repeated to a maximum of 6 units.

## AMERICAN STUDIES

College of Liberal Arts

Director<br>Brett Mizelle<br>Department Office<br>Faculty Offices 2 (FO2), Room 109<br>Telephone / FAX<br>(562) 985-4424 / (562) 985-5431<br>Affiliated Faculty<br>Professors

Elyse M. Blankley (English/Women's Studies), Patricia A. Cleary (History), Sharon D. Downey (Communication Studies), J. William Gibson (Sociology), Paul Gilmore (English), George Hart (English) Troy Johnson (American Indian Studies), Maulana Karenga (Black Studies), Karen Kleinfelder (Art), Charles Noble (Political Science), Carlos R. Piar (Religious Studies), Karen Rasmussen (Communication Studies), Craig R. Smith (Communication Studies), John N. Tsuchida (Asian and Asian American Studies), Julie Van Camp (Philosophy)

## Associate Professors

Timothy Caron (English), Eve Oishi (Women's Studies), Frederick Wegener (English), Alison Wrynn (Kinesiology and Physical Education)

## Assistant Professors

Angela Bowen (Women's Studies), Linda N. España-Maram (Asian and Asian American Studies), Marc Flacks (Sociology), , Ann Johnson (Communication Studies), Brett Mizelle (History), Daniel J. O'Connor (Liberal Studies), Reiland Rabaka (Black Studies), Maythee Rojas (Women's Studies), Max Rosenkrantz (Philosophy), Anna Sandoval (Chicano and Latino Studies), Sarah L. Schrank (History), Nancy Strow Sheley (English/Liberal Studies), Jon R. Stone (Religious Studies), Dean S. Toji (Asian and Asian American Studies), Omar S. Valerio-Jimenez (History)

## Bachelor of Arts in American Studies (code AMSTBA01) (120 units)

Students desiring information should contact the department office for referral to a faculty advisor.

American Studies is an interdisciplinary study of American culture. The American Studies Program offers a major leading to the bachelor's degree, a minor, and a Liberal Studies concentration. The program also offers a variety of general education and interdisciplinary courses. Most students majoring or minoring in American Studies are interested in both (1) studying American culture as a whole from several disciplinary perspectives and (2) studying in depth a problem or theme according to individual choice. Reflecting these two interests, the major consists of a 5course core sequence and a 5-course elective pattern that centers on one theme or problem.

The American Studies Program is governed by a committee of faculty from various departments and schools who also serve as advisors. Students majoring in American Studies confer with advisors to plan their programs, which are recorded on official advising forms.

In addition to providing a broad liberal education focusing on American culture, traditions and institutions, the major in American Studies offers a useful background for careers in law, journalism, public service, government, business and teaching. The program also provides the foundation for
graduate work in American Studies and related fields
In preparation for the upper division major in American Studies, students are expected to have completed lower division courses appropriate as background to the study of American culture. Students planning to major in American Studies should consult the program director or one of the above-named faculty advisors early in their academic careers for general education and preparatory course recommendations and for teaching credential information.

## Requirements

A minimum of 33 units distributed as follows:
Core courses: AMST 300; HIST 477A,B; ENGL 270A,B.
Elective pattern: The student chooses one of the following topics or themes and plans with an advisor (who will have an up-to-date master list of appropriate courses) an elective pattern of a five-course sequence with no more than two courses coming from any one academic department: (A) American Institutions; (B) American People; (C) Women in America; (D) American Environment; (E) Arts and Communication in America; (F) American Mind; (G) Student-Designed Pattern. In place of one of the above topics or themes, the American Studies major, with the approval of the advisor and the program director, may design a sequence of courses focusing on a topic, theme, or problem in which he or she is particularly interested.

## Minor in American Studies (code AMSTUM01)

Minimum of 18 units, including AMST 300 and HIST 477A,B and 9 or more units chosen in consultation with faculty advisor.

## Courses (AMST)

Foundation Courses must be completed prior to taking any upper division course except language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## LOWER DIVISION

## 200. Explorations in American Popular Culture (3)

Prerequisites: Completion of GE Foundation requirements.
Examines broad terrain of American popular culture from multiple disciplinary perspectives, interrogating both the form and content of cultural production and reception in the past and present.
May be repeated to a maximum of 6 units with different topics in different semesters.

## UPPER DIVISION

## 300. Introduction to American Studies (3)

Interdisciplinary approaches to study of American civilization from colonial period through twentieth century. Significant issues and problems in American life examined from perspectives of several disciplines.

## 3501. California Culture (3)

Prerequisites: GE Foundation; upper division status Interdisciplinary examination of the culture of California.

Interdisciplinary examination of California culture. Emphasis on how California's history, politics, environment, social movements, art, and literature produce a contested and always changing culture.

## ANTHROPOLOGY <br> College of Liberal Arts

Department Chair<br>Daniel O. Larson<br>Department Office<br>Faculty Office FO3-305<br>Telephone

(562) 985-5171

FAX
(562) 985-4379

## Website

http://www.csulb.edu/depts/anthro
Faculty

## Professors

Pamela A. Bunte, Jayne Howell, Daniel O. Larson, Barbara C. LeMaster, Hector Neff, Eugene E. Ruyle, Marcus Young Owl

## Associate Professors

Larry L. Mai, George M. Scott

## Assistant Professors

Michael Cannon, Thamora V. Fishel, Carl P. Lipo, Karen Quintiliani, R. Scott Wilson

## Undergraduate Advisor

Jayne Howell

## Graduate Advisors

Pamela A. Bunte - Applied, Cultural, and Linguistics Hector Neff - Archaeology

## Administrative Coordinator

Tammi Baltin

Anthropology is the systematic study of our own species in our biological, social, and cultural aspects. Anthropologists study the full range of human experience in both the past and present. The breadth of anthropological studies gives students a unique perspective to understand other societies and their own. The programs offered by the Department of Anthropology are designed to enrich the personal and professional lives of our students.

The undergraduate major in Anthropology is designed to provide students with knowledge of the various fields of Anthropology and with opportunities for emphasis in particular topical and geographical interests. Students will find that Anthropology provides a useful perspective that has many applications in daily social interaction. The Anthropology major provides a strong liberal arts background that can contribute to success in many fields, such as teaching, public service, or business. Anthropology majors intending to pursue careers in these fields are urged to consider minoring in fields which provide appropriate entry-level skills, such as the Minor in Business Economics or in Public Policy. The major also prepares students for advanced studies in Anthropology. The undergraduate minor in Anthropology is recommended for students preparing for careers which will require practical knowledge of different cultural backgrounds. These include teaching, international business and engineering, foreign service, and public and social services within our own multicultural society.

The Department of Anthropology also offers a graduate program leading to the Master of Arts degree. The graduate program is designed to meet the needs of students who are: 1) seeking to expand their knowledge and increase their competence in Anthropology, 2) preparing for further advanced degrees, 3) preparing for a career in Applied anthropology. Graduate students are responsible for observing the general requirements for the M.A. degree as stated in this Catalog. It is also recommended that prospective students consult with the Graduate Advisor at their earliest opportunity.

## Bachelor of Arts (code ANTHBA01) (120 units)

Lower Division: ANTH 110, 120, 140, 170 and 202.
Upper Division: A total of 33 units. Required Core Courses (15 units): ANTH 313, 314, 401, 435 and 413 or 475.

In consultation with the Undergraduate Advisor, an additional 18 units will be selected from the courses listed below.
Archaeology: ANTH 202, 321, 322, 323, 345, 347, 349, 445, $450,451,453,455,456,464,471,472,473,481,485$, 486, 487, 488, 489
Biological Anthropology: ANTH 315, 317, 318, 319, 363, 402, 434, 436, 480A, 480B
Cultural Anthropology: ANTH 305I, 307I, 311I, 321, 322, 323, 324, 329, 332, 333, 335, 336, 345, 351, 353, 412I, 414, 415, 416, 417, 419, 420, 421, 422, 423, 424, 426, 427, 428, 429, 436, 440, 454, 458, 478, 479.
Linguistic Anthropology: ANTH 413, 421, 475

Students may apply a maximum of 2 Anthropology Capstone courses to the major. Students may apply Anthropology Human Diversity classes to the major.

Students may take a total of 6 units of ANTH 490 and, with approval of the undergraduate advisor and sponsoring faculty members, up to 6 units of ANTH 496, 498, or 499.

## Minor in Anthropology (code ANTHUM01)

A minimum of 21 units in a program approved by the major advisor, as follows:

Lower Division Required: ANTH 120, 140, 170 and 110.
Upper Division Electives: 9 units of anthropology courses selected in consultation with the major advisor to meet the specific needs of the student.

## Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code COEDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units): Culture: ANTH 421/LING 425 or EDP 432/EDEL 430 Language: EDSP 454 or LING/CD 329
Schooling: EDP/LING 485
Development: EDP 301, 302; HDEV 307I; or PSY 361
2. Six units, selected with an advisor, from the following: Culture: AIS 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319, ANTH 329, ANTH 412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430 Language: ANTH 170, CHLS 402, EDSP 454, LING/CD 329, LING/ENGL 327; LING 363I, 435, 472, 486.
Schooling: AIS 361, ASAM 310, B/ST 420, CHLS 340, EDP 305, 476, EDSP 350.
Development: EDP 301, 302, HDEV 307I, PSY 361.

## Master of Arts in Anthropology (code ANTHMA01)

The Department of Anthropology offers graduate work in cultural anthropology, archaeology and linguistic anthropology, leading to a master's degree in anthropology. Students interested in physical anthropology should contact either Dr. Mai or Dr. Young Owl.

## Prerequisites

1. A bachelor's degree in anthropology; or
2. A bachelor's degree with 24 units of upper division courses in anthropology, comparable to those required of anthropology majors at this University;
3. A B.A. degree in any field and other background appropriate to graduate study in anthropology. Students whose background in anthropology seems inadequate may be required to fulfill specific undergraduate deficiencies before admission to candidacy. Deficiencies will be determined by the departmental graduate advisor after consultation with the student and a review of the student's transcript records.

## Advancement to Candidacy

1. Acceptance into the M.A. program by the department;
2. Satisfaction of the general University requirements for advancement to candidacy (including fulfilling the GWAR);
3. Approval of the candidate's graduate program by the departmental graduate advisor;
4. The candidate must have taken ANTH 501, 510, and either 560 or 561 for a total of 9 core units.

## Requirements

1. A minimum of 33 units of 400 -level upper division and graduate courses, of which 21 units must be at the 500600 level in a program approved by the Graduate Advisor. These 33 units must include the following courses: ANTH 501,510 and 560 or 561;
2. Up to 6 units of course work outside the Department of Anthropology may be included in the 33 unit total;
3. Competence in appropriate research skills. These may include: familiarity with computer languages and use of computers, or statistical training and facility, or a reading knowledge of a foreign language;
4. Either A) a Comprehensive Examination, or B) a M.A. Thesis.

## Option in Applied Anthropology (code ANTHMA02)

The Department of Anthropology offers graduate work in applied anthropology leading to a Master of Arts degree in Anthropology. The program produces practitioners who use anthropological knowledge and methods to design, conduct, and evaluate research and action programs. Students with a B.A. in Anthropology, as well as those who can apply their previous training and experience to the practice of anthropology, are welcome to apply. In order to meet the growing demand in California and elsewhere for professionals capable of addressing the complex, global problems of multicultural urban and regional environments, the Applied Anthropology Program emphasizes knowledge of anthropological theory and specialized training for its application across a wide range of global contexts. All graduate students participate in research projects and internships. Within the global context of urban and regional cultural change, the program offers three concentrations: multicultural education, medical/health care, and community/ organizations. Regional emphasis begins with the languages, cultures, and organizations of southern California and the Southwest and extends globally.

## Prerequisites

1. A bachelor's degree in anthropology; or
2. A bachelor's degree with 24 units of upper division courses in anthropology, comparable to those required of anthropology majors at this University; or
3. A bachelor's degree in another field, either a social science, humanity, education, or medical science one, with fewer than 24 units of upper division course work in anthropology, showing evidence of strong potential skills in applied anthropology.
Students under category (3) should submit a petition together with whatever supporting materials as recommended by the Graduate Advisor. If the Graduate Student Committee considers an applicant to lack a basic understanding of
anthropological theories and methods, such an applicant will be accepted provisionally into the program (as an unclassified post- baccalaureate student), in which case he/she will be advised to enroll in courses during the first semester recommended by the Committee. Providing that the student performs satisfactorily in these courses, he/she will be admitted into the program the following semester, gaining classified status, and credit will be given for those courses completed the previous semester that are required for the Master of Arts degree.

## Advancement to Candidacy

1. Classified status;
2. Satisfaction of the general University requirements for advancement to candidacy (including fulfilling the GWAR);
3. Approval of the candidate's graduate program by the departmental graduate advisor.

## Requirements

Plan 1
The student must complete a minimum of 39 units of 400 upper level upper division and graduate courses in a program approved by the Graduate Advisor. Note: Students may substitute other courses for those normally required, but only with the approval of the Graduate Advisor.

1. ANTH 501, $503,505,510,517,560,561,675$ and six units of 698;
2. Three upper division/graduate elective courses related to the students may research interest;
Satisfy the language requirement. Each student will be considered individually in relation to this requirement which may be satisfied by ANTH 570. This requirement must be satisfied before he or she begins work on the thesis.
3. Satisfy the language requirement. Each student will be considered individually in relation to this requirement. Which may be satisfied by ANTH 570. This requirement must be satisfied before he or she begins work on the thesis;
4. Undertake and satisfactorily complete, under the supervision of the committee, a Thesis.

## Plan 2

The student must complete a minimum of 42 units of 400 upper division and graduate courses in a program approved by the Graduate Advisor. Note: Students may substitute other courses for those normally required, but only with the approval of the Graduate Advisor.

1. ANTH $501,503,505,510,517,560,675$.
2. Fifteen upper division/graduate units of courses related to the students main research interest.
3. Satisfy the Language requirement. Each student will be considered individually in relation to this requirement which may be satisfied by ANTH 570. This requirement must be satisfied by before he or she begins work on the Thesis.
4. Undertake and satisfactorily complete, under the supervision of an advisor, a Project, a written report on the project, and completion of three units of ANTH 698.

## Courses (ANTH)

## LOWER DIVISION

## 100. The Human Experience (3)

General introduction to anthropology, including cultural, archaeological, biological, and linguistic aspects. Recommended for non-majors.
Letter grade only (A-F).

## 110. Introduction to Physical Anthropology (3)

Prerequisites/corequisites: Completion of any B. 2 Foundation GE course.
Physical nature of human beings: relation of humans to other animals: heredity and principles of biological evolution: human fossils: significance of physical variation in modern populations: the origin and adaptive value of technology.
(CAN ANTH 2)

## 120. Introduction to Cultural Anthropology (3)

Prerequisite/corequisite: Any G.E. Foundations course.
Nature of culture; comparative and historical approach to religion, social organization, subsistence patterns and other aspects of cultures around the world; meanings of human nature, cultural universals and cultural differences.
(CAN ANTH 4)
140. Pyramids, Tombs and Treasure: Wonders of the Past (3)
Prerequisite/corequisite: Any G.E. Foundations course.
An exploration into the many enigmas that remain in the study of the human past. This course investigates how archaeologists are able to produce answers to many enduring problems using a scientific understanding of the archaeological record and material remains.
(CAN ANTH 6)

## 170. Introduction to Linguistics (3)

Prerequisite/corequisite: Any G.E. Foundations course.
Nature of language; its relation to culture; language structure and processes of change; language universals, contrasts and relationships.
Same course as LING 170.

## 202. Quantitative Methods in Anthropology (4)

Designed to strengthen quantitative skills; emphasis placed on analysis of large datasets, computer graphics, research design, and application of several statistical methods and software programs; Datasets used in this class have a multicultural base.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 301. Principles of Archaeology (4)

Exploration of techniques, methods, and goals of archaeological research; Study of ceramics, lithics and other parts of the archaeological record; general problems encountered in explaining archaeological phenomena.
Letter grade only (A-F).
305I. Radical Social Analysis (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Radical analysis of society and culture, focusing on classic Marxian texts as well as current critical theory and analysis.

## 307I. Modernization in Global Perspective (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Exploration of psychological and material problems in modern society (both western and Third World) due to accelerating change beginning with advance of technology, rise of capitalism, abandonment of "old values," increasing complexity of bureaucracy, and lowering of social barriers.

## 311. Human Adventure (3)

Prerequisite: Completion of GE Foundation requirements, one or more Explorations courses, and upper division standing.
An exploration of the evolution of key features of humanity from our origins through the present and into the future.

## 313. World Prehistory (3)

The origin of human beings and their cultures, the development of agriculture, the growth of city life, and the rise of civilization; a survey of world-wide prehistory from the Old Stone Age to the Iron Age.

## 314. Global Ethnography (3)

Prerequisites: Completion of GE Foundation requirements
Recent and contemporary cultures around the world; a comparative survey of their ecological adaptations, social institutions, technology, subsistence strategies, degrees of complexity, and patterns of change.

## 315. Human Variation (3)

Biological variation and differences in the modern humans; biological concepts of biospecies and subspecies; Biological adaptations; racism and genocide are discussed; rise of the race concept in North America and the social meaning of this concept; biology of several American ethnic groups.
Letter grade only (A-F).

## 317. Methodology in the Anthropological Life Sciences

 (4)Prerequisites: ANTH 110, 202 (or comparable statistics course) with a grade of " $C$ " or better.
Methodology used in biological research; theory, measurement, experimentation, models, predictions, use of statistics in the anthropological sciences, and laboratory vs. field studies. Applications in the various subdisciplines.
Lecture 3 hours, laboratory 3 hours. Letter grade only (A-F).

## 318. Human Genetics (3)

Prerequisites: ANTH 110 or equivalent BIOL course, a quantitative course.
Genetic background for normal and abnormal development; population differences; human reproduction, pregnancy, prenatal diagnosis and birth defects; introduction to population and evolutionary genetics; application to social, moral, legal and ethical problems and to genetic counseling.

## 319. Human Growth and Development (3)

Prerequisites: BIOL 205 or 207.
Analysis of the sequence of events in the development of people from conception to death; organ development; rapid and retarded growth patterns; the processes of aging and death from a broad ethnic and ecological perspective.

## 321. North American Indians (3)

Comparative study of traditional Native American societies, social organization, belief systems and religions, crafts and adaptation to varied environments; cultural changes in response to European contacts. .

## 322. California Indians (3)

Survey of native Californian groups; discussion of the diversity of aboriginal culture prior to western contact as background for analysis of the impact of Europeans; problems of intercultural relations; and the current status of native Californians.

## 323. Peoples of Mexico and Central America (3)

Survey of present-day peoples of Mexico and Central America; indigenous and mestizo cultures and their heritage; examination of recent change.

## 324. Peoples of South America (3)

Survey of the present day peoples of South America; tribal Indians, peasant communities, village life, the emerging middle class, and other social groups; examination of the Indian, European, and African heritage and present day cultural and social changes.

## 329. Cultural Diversity in California (3)

Prerequisite: Completion of G.E. Foundation requirements.
Examination of current cultural diversity in California, including ethnicity, nationality, class, gender, religion, and region; and the impact of this diversity on public institutions will be covered. Letter grade only (A-F).
332. Chinese Culture and Society (3)

Anthropological perspectives on revolution, socialism, and institutional change in China, ethnic diversity, family and kinship patterns, politics, economy, international relations, and religion in premodern and modern times.
333. Cultures and Societies of Southeast Asia (3)

Comparison of ecological, social, and symbolic systems of mainland and island Southeast Asia. Emphasis of traditional cultures of agricultural and small-scale societies. Effects of colonialism and modernization are also covered.

## 335. Japanese Culture and Society (3)

Cultural and social institutions; kinship, family structure, religion, law, politics and economy from traditional to modern times.

## 336. African Societies and Cultures (3)

Prerequisites: General Education Category A.
Anthropological survey of Africa examining social, cultural, and economic diversity of the continent over time; foundation for appreciation of current issues in Africa including cultural debates, nationalism, and cultural change and preservation.

## 345. Ancient Civilizations of Mexico and Central America (3)

Origin and growth of the Aztec, Maya and other civilizations of Mexico and Central America.

## 347. Prehistoric Cultures of North America (3)

Archaeological evidence of origin and growth of the native American cultures north of Mexico; regional cultures and broad continental patterns of development.

## 349. The Prehistory of California and the Southwestern United States (3)

Development of the native cultures of California and American Southwest from the earliest human occupation to the historic period.

## 351. Sex Roles and Culture (3)

Interaction of biological, cultural and historical factors on male/ female roles and status in traditional and contemporary cultures and societies.

## 353. Health and Healing (3)

Cultural perspective of health and health care delivery; coverage of diverse cultures in the United States and abroad; emphasis on increasing personal awareness through exposure to diverse perceptions of illness and treatment.

## 363. Natural History of Primates (3)

Prerequisites: ANTH 110.
Relationship of primates to other mammals; adaptation of arboreal mammals; functional and evolutionary aspects of primate anatomy and physiology; effects of size; primate ecology; survey of the Order Primates: Prosimii, Tarsoidea, New World and Old World Monkeys, Hominoids.

## 401. Foundations of Anthropology (3) F

Prerequisites: ANTH 313 and ANTH 314 with grade of "C" or better, or consent of instructor.

Introduction to history of anthropological theory from inception to current approaches; frames theories in the social context in which they emerged.

Letter grade only (A-F).

## 402. Evolutionary Theory (3)

Prerequisites: Upper-division standing and completion of Anthropology 110 with a grade of "C" or better.
Development of evolutionary thought and its impact on Anthropology; origins of physical anthropology; Mendelian genetics, transmutationalism, populational genetics, HardyWeinberg equilibrium, non-Darwinian evolution, and modern synthesis; scientific method, the application of evolutionary theory to human origins, primate biology, behavioral biology. Current theoretical perspectives.
Letter grade only (A-F).

## 403. Evolutionary Anthropology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Exploration courses, and completion of any lower division course in Anthropology with a grade of C or better.
Overview of the application of evolutionary theory to human behavior and culture. Fundamentals of Darwinian evolution, cultural transmission, behavioral ecology, and complex social systems. Applications in ethnology, archeology, biological anthropology and historical linguistics with relevance to issues facing modern societies.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

## 4121. Culture and Communication (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Culture and its influence on the communication process; practical application to intercultural and multicultural situations; cultural patterns in America and abroad and their effect on verbal and nonverbal communicative behavior; cultural dimensions of ethnocentrism, stereotypes, and prejudices and their effect on communication; multicultural approaches to human interaction.

## *413. Language and Culture (3)

Relation of language patterns to social life; problems of meaning in cross-cultural communication and language translation; practical application to business, government and religious contacts.
Not open for credit to students with credit in ANTH 440. Same course as LING 413.

## 414./514. Anthropology of Religion (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or consent of instructor.
An anthropological examination of religious behavior and beliefs, which will focus on these phenomena in their sociocultural and adaptive contexts. Using the cross-cultural and cultural evolutionary approach, hunter-gatherer religions through civilized ones will be covered.

## Letter grade only (A-F).

## 415./515. Economic Anthropology (3) S

Compares and contrasts the economies characteristic of huntergatherers, horticulturalists, and peasants; investigates the changing relations of tribal and peasant peoples to the developing global economy; and looks at production and marketing strategies within local, regional, and urban settings.
416./516. Urban Anthropology (3)

Comparative analysis of development and role of urban centers in ancient and modern cultures; interrelationships of urban and rural populations; patterns of similarity and difference in urbanism of contrasting cultures; implications for a multi-national world.

## 417./517. Applied Anthropology (3)

Prerequisites: ANTH 120 and upper division standing or graduate standing or consent of instructor.
Brief orientation to applied anthropology, its history and ethics; policy and applied anthropology domains (needs assessment, program evaluation, social impact assessment, environmental, advocacy); applied research methods; student proposals for internship research.

## 419./519. Encounters and Identities (3)

Prerequisite: Graduate and advanced undergraduate students only.
Examination of how cultural anthropologists have dealt, theoretically, with the concept of identity; concentrates more on theories than geographic regions, emphasis on recent theoretical developments such as post-modern and post-colonial approaches to the study of contemporary subjectivities.
Letter grade only (A-F).

## 420./520. Culture, Power and Politics (3)

Prerequisite: ANTH 120 and upper-division/graduate standing or consent of instructor.
Examines from an anthropological perspective how culture shapes the social construction of power and the practice of politics from an anthropological perspective.
*421. Education Across Cultures (3)
Cross cultural perspectives on education in modern society; problems in education of non-western peoples by those from western cultural backgrounds.
Same course as LING 425.

## 422./522. The Anthropology of Gender (3)

Prerequisites: Upper division standing and ANTH 351 or consent of instructor.
Examines anthropological perspectives on gender and how these perspectives have challenged and transformed anthropology and feminism; class will locate gender relations in the production of anthropological knowledge, in colonial and postcolonial social fields, and in the movement of global capitalism.
Letter grade only (A-F).
423./523. Modernity/Post-Modernity (3)

Exploration of how cultural anthropologists have dealt in the practice of fieldwork, and the writing of ethnographies, with the concepts of modernity and post-modernity and other processes that are normally seen as being the result of post-modern, flexible regimes of capitalist accumulation.
Letter grade only (A-F).

## 424. Anthropology and the Colonial Experience (3)

Prerequisite: ANTH 120, 314 or consent of instructor.
Comprehensive anthropological perspective on the immediate and long-term consequences of European colonization-the sustained political, social and economic domination of native populations by a foreign power-on nations in Asia, Africa, Latin America, and North America.

## 426. Post Colonial Africa (3)

Prerequisites: Completion of all Foundation coursework. Change and continuity in contemporary Africa, ethnography of postcolonial social and cultural issues including globalization and transnationalism, health, food security, peace and war, economic and political transformations, and the politics of culture.

## 427./527. Global East Asia (3)

Prerequisites: Graduate and advanced undergraduate students.
Students will examine how socio-cultural formations in an East Asian context articulate with global flows of capital, people, and ideas.
Letter grade only (A-F).

## 428./528. Historical Ethnography (3)

Prerequisite: Consent of instructor.
Development of the specialization of historical ethnography in anthropology, combined ethnographic and historical approaches to ethnographic questions, methodological and theoretical issues in historical ethnography.
Letter grade only (A-F).

## 429./529. Peasants (3)

Prerequisites: ANTH 120, 314 or consent of the Instructor.
Examines the anthropological debates about ways that peasants are integrated into a global economic system, and discusses related issues such as educational and employment opportunities, urbanization, international migration, and sustainable development.

## 434. Primate Evolution (3)

Prerequisite: ANTH 110. Recommended: ANTH 363, upper division physical anthropology, biology, or anatomy/physiology course.
Primate evolutionary biology, minus the sub-family hominidae; fossil record and analysis of fossils (through the use of fossil casts); detailed cranial anatomy (particularly teeth) will be examined in the laboratory section; literature on primate evolution will be surveyed.

## *435. Human Evolution (3)

Prerequisites: ANTH 110.
Fossil and molecular evidence for human evolution with a consideration of the importance of cultural factors.
Not open for credit to students with credit in ANTH 430.
*436. Medical Anthropology (3)
Prerequisites: ANTH 353 recommended.
Interaction of cultural, biological and environmental elements in human response to disease; emphasis on an ecosystem approach with evolutionary and comparative perspectives.

## 440. Ethnographic Field School (3-6)

Prerequisite: Consent of Instructor.
This experiential course gives students an opportunity to apply standard ethnographic methods to study, observe, and learn about a non-U.S. culture. Analysis of methodology and data collection will occur throughout the course. Location, topics and activities will vary. Letter grade only (A-F).

## 444./544. Transnational Migrants (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or consent of the instructor.
Anthropological examination of lives of immigrants and refugees. Explores the way studies of migration challenge understandings of local context of globalization and transnationalism. Through empirical studies and ethnographies of migration discussions will focus on major areas of anthropological contributions to theories of culture, ethnicity, identity, theories of incorporation, adaptation and nativism. Special emphasis on relevance of applied anthropology in reaching understanding through research and advocacy. Letter grade only (A-F).

## 445./545. Human Environment Interaction in Prehistory and History (3)

Prerequisites: ANTH 140 and ANTH 313 or consent of instructor.
Explores archaeological and paleoenvironmental evidence of how the natural environment has affected human biological and cultural evolution and how human activities have affected the environment.

## *450. Archaeological Field Research (1-10)

Prerequisite: Consent of Instructor.
Introduction to field acquisition of archaeological data through remote sensing, geophysics, survey, and excavation; instructional emphasis is on recovery, recording techniques, and the management of field projects; locations will vary and may be offered on Saturdays.
May be repeated to a maximum of 10 units in different semesters.

## 451./551. Archaeological Artifacts Analyses (4)

Prerequisite: ANTH 140 or equivalent.
Study of the products of human activity; nature of measurement and observation within the archaeological record;. Explanations of artifact variability. study of lithics, ceramics, and other types of archaeological materials. Practical experience in the study of materials, sampling, errors.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)

## 453./553. Archaeological Field Research Design (4)

Prerequisites: Consent of instructor and ANTH 301 or equivalent.
The nature of the archaeological record, research design, techniques of archaeological data collection and field research employing data sources and modern techniques. Practical experience in the use of mapping instruments, map interpretation, geophysics, surface survey, sampling designs, remote sensing photogrammetry.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)

## 454. Culture and Aging (3)

Cultural perspectives on aging and the aged in America and elsewhere. Attention to insider views from specific societies and to comparison of aging concerns in diverse settings.

## 455./555. Archaeological Method and Theory I (4)

Prerequisites: Consent of instructor and ANTH 301.
Examination of theoretical constructs in the analysis of archaeological data. Development and construction of a metalanguage for the discussion and analysis of historical phenomenon. Key debates in archaeological literature about the nature of theory, knowledge, theory and units.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
456./556. Archaeological Method and Theory II (4)

Prerequisites: Consent of instructor and ANTH 455.
Analysis of conceptual frameworks employed by archaeologists in obtaining explanation in the three major areas of culture history, cultural reconstruction, and explanatory prehistory, Introduction to evolutionary theory as used in archaeology. Debates about the nature of evolutionary explanations.
Letter grade only (A-F).

## 458. Ethnographic Methods (4)

Prerequisites: ANTH 110, 120, 140, and 170 or consent of the Instructor.
Introduces students to the purposes of cultural anthropology fieldwork, the methodology used to collect ethnographic data, and ways of analyzing and reporting the data collected; focus on identifying and defining research problems and populations, and ethical issues that arise when conducting research.

## 464./564. Quantitative Methods in Anthropological Research (4)

Prerequisites: ANTH 202 and consent of instructor:
Advanced statistical and analytical methods involved in anthropological research. Advanced statistical principles and techniques include principal components, ANOVA, MANOVA, factor analysis, bootstrapping, and sampling designs in the anthropological research.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
471./571. Prehistory of Eastern North America (3)

Prerequisites: ANTH 140 or equivalent.
Ecological and evolutionary account of prehistoric cultural developments in North America east of the Rocky Mountains. Cultural and environmental change from appearance of people in New World to collapse of indigenous cultural systems.
Letter grade only (A-F).

## 472./572. Archaeology of the Desert West (3)

Prerequisites: ANTH 140 or 301 or 313.
Overview of the archaeology of the Great Basin, the southwestern U.S., and northwestern Mexico. Major developments from the initial human colonization of North America through European contact, with emphasis on human ecology in arid environments. Letter grade only (A-F).

## 473./573. Archaeology of California (3)

Prerequisites: ANTH 140 or 301 or 313.
Overview of the archaeology of California, from initial human colonization through European contact. Emphasis on environmental change, human-environment interactions, the development of social complexity, and the consequences of European colonization.
Letter grade only (A-F).

## *475. Language and Gender in Cross-Cultural Perspective (3)

Analysis of men's and women's communication in its social and cultural context; role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions of perceptions and stereotypes and their effect on communication.
Same course as LING 470, W/ST 475.

## 478. Anthropology and Film (3)

Prerequisite: One lower division anthropology course or consent of instructor.
This seminar critically analyzes issues of an anthropological nature as presented in ethnographic and commercial films. Representations of anthropologists, anthropological theories and methods, and populations and concerns of anthropological interest are contrasted with scholarship published on the same issues.
Letter grade only (A-F) for Majors/Minors.

## 479. Anthropology of Literature (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Explores how written literature-novels, short stories, and poetry—reflects the cultural attributes of its settings; enhances understanding and appreciation of cultures different from our own; enhances critical thinking about the relationship between literature and anthropology.
Letter grade only (A-F).
*480A. Osteology I (3)
Introduction to skeletal anatomy, measurement and analysis of osteological collections, applied anthropometrics and morphometrics.
*480B. Osteology II (3)
Prerequisites: ANTH 480A or consent of instructor.
Osteological analysis of skeletal materials; detection of pathological conditions on archeological populations; methods of dietary analysis; faunal analysis from archeological sites.

## 481./581. Faunal Analysis (4)

Prerequisites: ANTH 140 or equivalent, consent of instructor.
An introduction to the analysis of animal bones from archaeological sites; exploration of the theoretical and methodological issues that are fundamental to the study of faunal remains and modern zooarchaeology.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
485. Physical Science Techniques in Archaeology (4)

Prerequisites: ANTH 140 and one other archaeology course or consent of the instructor.
Techniques of physics and chemistry in archaeology; use of laboratory equipment, including analytical balances, drying
ovens, furnaces, and other sample preparation techniques; use of chemical characterization techniques, including scanning-electron microscopy and inductively-coupled mass spectrometry.
Letter grade only (A-F).

## 486./586. Geoarchaeology (3)

Prerequisites: ANTH 301 or consent of instructor.
Identification, analysis, and interpretation of sediments and soils associated with archaeological remains. Laboratories deal with sediment description and chemical analysis; field trips and student projects focus on archaeological applications of these subjects.
(3 hours seminar; 3 hours activity) Letter grade only (A-F).

## 487./587. Cultural Resource Management (3)

Prerequisite: ANTH 301.
Introduction to the practice of public archaeology in the United States: historical and legal background; federal, state, and local programs; archaeology and Native Americans; contract archaeology; survey, evaluation, and mitigation projects; professional employment in U.S. cultural resource management. Letter grade only (A-F).

## 488. Advanced Methods in Near Surface Remote Sensing (4)

Prerequisites: ANTH 453 and consent of instructor.
Advanced exploration of the use of near surface geophysical techniques in the study of archaeological deposits; theory and methodology in the use of remote sensing in archaeology. Development of research designs; practical considerations when using geophysical equipment in archaeological research. Letter grade only (A-F).

## 489. Advanced Archaeological Analyses: Research

 Practicum (3)Prerequites: One of the following: ANTH 450, 451, 453, 464, 481, 485, 486, or 488.
Advanced study of the archaeological record using multiple laboratory and field research techniques. Research leading to group and independent projects. Collaborative and hands-on application of analytic and quantitative analyses. Preparation of results for publication and presentations.
Letter grade only (A-F). (6 hour activity)
*490. Special Topics in Anthropology (3)
Topics of current interest in anthropology selected for intensive development.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.

## 496. Internship (3)

Prerequisites: Student must have upper division standing, and have approval of a faculty mentor.
Supervised internship in an area of anthropology within or outside the University; field experience of 90 hours in which the student gains practical experience in an area of anthropology.
Letter grade only (A-F).

## 498. Senior Thesis (1-6)

Prerequisites: Student must be an Anthropology major, senior standing, and have approval of a faculty mentor.
Research for and writing of a senior thesis under the direction and guidance of an Anthropology Department faculty mentor.
Letter grade only (A-F).
499. Guided Studies in Anthropology (1-3)

Prerequisite: Consent of department.
Selected topics in anthropology and preparation of a research report.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 501. Current Trends in Anthropological Theory (3)

Prerequisites: ANTH 401 or its equivalent, and graduate standing.
Examination of current themes used by leading anthropologists in the areas of our graduate program, i.e.: Applied Anthropology, Linguistic Anthropology, and Archaelogy. Investigation of how theories shape problems and analytic techniques, and what makes theory 'cutting edge'.
Letter grade only (A-F).

## 503. The Anthropological Perspective (3)

Prerequisite: Graduate standing or consent of instructor.
Through reading and discussion of ethnographies and reports of applied anthropological work, this course reviews the scientific understanding of the process of inquiry and action in the human sciences, leading to the identification of a common core perspective within anthropology.
Letter grade only (A-F).

## 505. Practicing Anthropology (3)

Prerequisite: Graduate standing or consent of instructor.
Review of practical contributions by anthropologists in nonacademic settings; Attention to specific skills used by practicing anthropologists; business writing including resumes, contracts; oral presentations using audiovisual aides; internal and external contracting; time management; project management; working across disciplines; ethics.
Letter grade only (A-F).

## 510. Proseminar (3) F

Prerequisites: Six units of upper-division anthropology courses or consent of instructor.
Development of proposal planning, budgeting, and writing skills, particularly in applied anthropology, linguistics, and archaeology; both academic and contract/consulting types of proposals will be covered.
Letter grade only (A-F).

## 514./414. Anthropology of Religion (3)

Prerequisite: ANTH 120 and upper-division/graduate standing or consent of instructor.
Anthropological examination of religious behavior and beliefs, which will focus on these phenomena in their sociocultural and adaptive contexts using cross-cultural and cultural evolutionary approach, hunter-gatherer religions through civilized ones.
Letter grade only (A-F).

## 515./415. Economic Anthropology (3)

Compares and contrasts the economies characteristic of huntergatherers, horticulturalists, and peasants; investigates the changing relations of tribal and peasant peoples to the developing global economy; and looks at production and marketing strategies within local, regional, and urban settings.

## 516./416. Urban Anthropology (3)

Comparative analysis of development and role of urban centers in ancient and modern cultures; interrelationships of urban and rural populations; patterns of similarity and difference in urbanism of contrasting cultures; implications for a multi-national world.
Letter grade only (A-F).

## 517./417. Applied Anthropology (3)

Prerequisites: ANTH 120 and upper division standing or graduate standing or consent of instructor.
Brief orientation to applied anthropology, its history and ethics; policy and applied anthropology domains (needs assessment, program evaluation, social impact assessment, environmental, advocacy); applied research methods; student proposals for internship research.
Letter grade only (A-F).

## 519./419. Encounters and Identities (3)

Prerequisite: Graduate and advanced undergraduate students only. Examination of how cultural anthropologists have dealt, theoretically, with the concept of identity; concentrates more on theories than geographic regions, emphasis on recent theoretical developments such as post-modern and post-colonial approaches to the study of contemporary subjectivities.
Letter grade only (A-F).

## 520./420. Culture, Power and Politics (3)

Prerequisite: ANTH 120 and upper-division/graduate standing or consent of the instructor.
Examines from an anthropological perspective how culture shapes the social construction of power and the practice of politics from an anthropological perspective.

## 522./422. The Anthropology of Gender (3)

Prerequisite: Graduate standing or consent of instructor (ANTH 351 recommended).
Examines anthropological perspectives on gender and how these perspectives have challenged and transformed anthropology and feminism; class will locate gender relations in the production of anthropological knowledge, in colonial and postcolonial social fields, and in the movement of global capitalism.
Letter grade only (A-F).

## 523./423. Modernity/Post-Modernity (3)

Exploration of how cultural anthropologists have dealt in the practice of fieldwork, and the writing of ethnographies, with the concepts of modernity and post-modernity and other processes that are normally seen as being the result of post-modern, flexible regimes of capitalist accumulation.
Letter grade only (A-F).

## 527./427. Global East Asia (3)

Prerequisites: Graduate and advanced undergraduate students.
Students will examine how socio-cultural formations in an East Asian context articulate with global flows of capital, people, and ideas.
Letter grade only (A-F).

## 528./428. Historical Ethnography (3)

Prerequisite: Graduate status or consent of instructor.
Development of the specialization of historical ethnography in anthropology, combined ethnographic and historical approaches to ethnographic questions, methodological and theoretical issues in historical ethnography.
Letter grade only (A-F).
529./429. Peasants (3)

Prerequisite: Graduate standing or consent of the instructor.
Examines the anthropological debates about ways that peasants are integrated into a global economic system, and discusses related issues such as educational and employment opportunities, urbanization, international migration, and sustainable development.

## 530. Ethnography of Communication (3)

Prerequisite: Graduate standing.
Study of talk and other forms of communication from an ethnographic perspective. Emphasizes relevant methods and theories. Among the major topics presented from this perspective are language socialization, genres of speaking, intercultural communication, speech styles, strategic uses of language, and literacy.
Letter grade only (A-F). Same course as LING 533.

## 540. Ethnographic Field School (3-6)

Prerequisite: Consent of Instructor.
This experiential course gives students an opportunity to apply standard ethnographic methods to study, observe, and learn about a non-U.S. culture. Analysis of methodology and data collection will occur throughout the course. Location, topics and activities will vary. Letter grade only (A-F).

## 544./444. Transnational Migrants (3)

Prerequisites: Graduate standing or consent of the instructor Offers an anthropological examination of the lives of immigrants and refugees. It explores the way studies of migration challenge our understandings of the local context of globalization and transnationalism. Through empirical studies and ethnographies of migration discussions will focus on major areas of anthropological contributions to theories of culture, ethnicity, and identity as well as theories of incorporation, adaptation and nativism. Special emphasis is on the relevance of applied anthropology in reaching this understanding through research and advocacy.
Letter grade only (A-F).

## 545./445. Human Environment Interaction in Prehistory and History (3)

Prerequisite: Graduate standing or consent of instructor.
Explores archaeological and paleoenvironmental evidence of how the natural environment has affected human biological and cultural evolution and how human activities have affected the environment. Letter grade only (A-F).

## 551./451. Archaeological Artifacts Analyses (4)

Prerequisites: Graduate standing and consent of instructor.
Study of the products of human activity; nature of measurement and observation within the archaeological record;. Explanations of artifact variability. study of lithics, ceramics, and other types of archaeological materials. Practical experience in the study of materials, sampling, errors.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)

## 553./453. Archaeological Field Research Design (4)

Prerequisites: Graduate standing and consent of instructor.
The nature of the archaeological record, research design, techniques of archaeological data collection and field research employing data sources and modern techniques. Practical experience in the use of mapping instruments, map interpretation, geophysics, surface survey, sampling designs, remote sensing photogrammetry. Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
555./455. Archaeological Method and Theory I (4)

Prerequisite: Graduate standing and consent of instructor.
Examination of theoretical constructs in the analysis of archaeological data. Development and construction of a metalanguage for the discussion and analysis of historical phenomenon. Key debates in archaeological literature about the nature of theory, knowledge, theory and units.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
556./456. Archaeological Method and Theory II (4)

Prerequisite: Graduate standing and consent of instructor.
Analysis of conceptual frameworks employed by archaeologists in obtaining explanation in the three major areas of culture history, cultural reconstruction, and explanatory prehistory, Introduction to evolutionary theory as used in archaeology. Debates about the nature of evolutionary explanations.
Letter grade only (A-F).

## 560. Ethnographic Research Methods (3)

Prerequisite: Graduate standing or consent of instructor.
A practice-oriented seminar in ethnographic research methodology, emphasizing techniques, methods, and concepts of ethnographic research. The course examines several qualitative, in-depth methods used by anthropologists as well as research design and research ethics.

## 561. Basic Computer Research Applications in Anthropology (3)

Prerequisite: ANTH 560 or consent of instructor.
Basics of both qualitative and quantitative computer methods, employing currently appropriate software and statistical techniques. Methods covered will be specifically related to research in
archaeology and applied anthropology; and the presentation of results, as well as various research problems, will be addressed.
Letter grade only (A-F).

## 564./464. Quantitative Methods in Anthropological Research (4)

Prerequisites: ANTH 560, graduate standing, and consent of instructor.
A consideration of advanced statistical and analytical methods involved in anthropological research. Advanced statistical principles and techniques include principal components, ANOVA, MANOVA, factor analysis, bootstrapping, and sampling designs in the anthropological research.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)

## 570. Linguistic Field Methods (4)

Introduces the student to the practical study of unfamiliar languages; through the help of a native speaker of a non-European language, the student will learn how to write down the sounds of the language and how to determine the structure of the language.
Same course as LING 580. (Lecture-activity 5 hours.) Letter grade only (A-F).

## 571./471. Prehistory of Eastern North America (3)

Prerequisites: Graduate standing and consent of instructor.
Ecological and evolutionary account of prehistoric cultural developments in North America east of the Rocky Mountains. Cultural and environmental change from appearance of people in New World to collapse of indigenous cultural systems.
Letter grade only (A-F).

## 572./472. Archaeology of the Desert West (3)

Prerequisite: Graduate standing or consent of instructor. Overview of archaeology of Great Basin, southwestern U.S., and northwestern Mexico. Major developments from the initial human colonization of North America through European contact, with emphasis on human ecology in arid environments.
Letter grade only (A-F).

## 573./473. Archaeology of California (3)

Prerequisite: Graduate standing or consent of instructor.
Overview of archaeology of California, from initial human colonization through European contact. Emphasis on environmental change, human-environment interactions, the development of social complexity, and the consequences of European colonization. Letter grade only (A-F).

## 581./481. Faunal Analysis (4)

Prerequisites: Graduate standing and consent of instructor. Introduction to the analysis of animal bones from archaeological sites; exploration of the theoretical and methodological issues that are fundamental to the study of faunal remains and modern zooarchaeology.
Letter grade only (A-F). (Lec 3 hrs, Lab 2 hrs)
585. Physical Science Techniques in Archaeology (4)

Prerequisites: Graduate standing and consent of Instructor.
Covers application of techniques of physics and chemistry in archaeology. Provides practical experience in use of laboratory equipment, including analytical balances, drying ovens, furnaces, and other sample preparation techniques. Provides experience in use of chemical characterization techniques, including scanning-electron microscopy and inductively-coupled mass spectrometry.
Letter grade only (A-F).

## 586./486. Geoarchaeology (3)

Prerequisite: Graduate standing or consent of Instructor. Identification, analysis, and interpretation of sediments and soils associated with archaeological remains. Laboratories deal with sediment description and chemical analysis; field trips and student projects focus on archaeological applications of these subjects.
(3 hours seminar; 3 hours activity). Letter grade only (A-F).

## 587./487. Cultural Resource Management (3)

Prerequisite: Graduate standing or consent of instructor. Introduction to the practice of public archaeology in the United States: historical and legal background; federal, state, and local programs; archaeology and Native Americans; contract archaeology; survey, evaluation, and mitigation projects; professional employment in U.S. cultural resource management. Letter grade only (A-F).

## 588. Advanced Methods in Near Surface Remote Sensing (4)

Prerequisites: Graduate Standing, ANTH 553, and consent of Instructor:
Advanced exploration of the use of near surface geophysical techniques in the study of archaeological deposits; theory and methodology in the use of remote equipment in archaeology research; critical evaluation of applications and technological developments.
Letter grade only (A-F).
591. Preceptorial Reading in Archaeological Science (3)

Prerequisite: Graduate standing.
Training in the problems, principles, and methods involved in the explanation of prehistory within a scientific framework; Meeting times to be arranged.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

## 592. Research Preparation in Archaeological Science (3)

## Prerequisite: Graduate standing.

Training in steps required for conducted research in archaeological science. Consists of development of research questions, research design and proposal.
May be repeated to a maximum of 6 units in different semesters. Credit/No Credit only.

## 597. Directed Readings in Anthropology (1-3)

Prerequisites: Senior or graduate standing and consent of instructor.
Selected topics in anthropology will be studied in depth. A written report will be prepared.
Letter grade only (A-F).

## 600. Seminar in Ethnology and Social Anthropology (3)

Topics of substantive and theoretical importance and their application to research problems.
May be repeated to a maximum of 6 units. Letter grade only (A-F)

## 620. Seminar in Archaeology (3)

Prerequisites: Six upper division units in archaeological courses or consent of instructor.
Important recent discoveries; contemporary ideas, trends and problems.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 630. Seminar in Anthropological Linguistics (3)

Prerequisite: Consent of instructor.
Areas and methods of linguistic study and research; evaluation and intensive scrutiny.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 675. Applied Anthropology Internship Analysis (3-6)

Prerequisites: ANTH 510, 517, 560.
Guided review and discussion of internship in applied anthropology; hands-on introduction to team analysis and other analytic methods drawing on research conducted during the internship.
Credit/No Credit grading only.

## 697. Directed Research (1-3)

Prerequisite: Consent of department.
Research in anthropology on an individual basis.
Letter grade only (A-F).

## 698. Thesis or Applied Project (1-6)

Prerequisite: Consent of department.
Planning, preparation and completion of a thesis (6 units) or an applied project (3 units) in anthropology.
May be repeated to a maximum of 6 units in the same semester. Letter grade only (A-F).

## ART

College of the Arts

## Department Chair

David A. Hadlock
Department Administrative Office
Fine Arts (FA) 4, Room 102
Department Student Services Office
Fine Arts (FA) 4, Room 106
Telephone/FAX
(562) 985-4376/985-1650

Undergraduate Advisor
B.A./B.F.A.: John Snidecor

Telephone: (562) 985-4381
Graduate Advisor
M.A./M.F.A.: Jay Kvapil

Telephone: (562) 985-7910
Faculty
Professors
Archie Boston Jr. (Emeritus), Domenic A. Cretara, Connie Glenn, Jen Grey, David A. Hadlock, Thomas E. Hall (Emeritus), Elisabeth Hartung, Tor Hovind, Karen Kleinfelder, Thomas J. Krumpak, Jay Kvapil, Anthony Marsh, Julia I. Miller, Roxanne Sexauer, Carol Shaw-Sutton, John C. Snidecor (Emeritus), Craig C. Stone, Marie Thibeault

## Associate Professor

Kendall Brown, Todd Gray, Peter Holliday, Yu Ji, Elizabeth Kenneday, Peter Mendez (Emeritus), Robin Richesson, Carlos Silveira

## Assistant Professors

Tanya Cummings, Linda Day, Christopher Miles, Kimiko Miyoshi, Kristen Morgin, Lara Nguyen, Catha Paquette, Kyle Riedel, Mark Ruwedel, Fran Siegel, Matthew Simms, Michael Whitlow, George Zebot

## Administrative Coordinator

Vacant

Students should contact the Department Student Services Office for referral to one of the faculty advisors: Art/Credential Advisor, B.A./B.F.A. Advisor, Graduate M.A./M.F.A. Advisor.

In recognition of the quality of its programs and the standards it maintains, the Art Department is an accredited institutional member of the National Association of Schools of Art and Design (National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

The Art Department at California State University, Long Beach, is one of several campuses in the California State University system authorized to offer the Master of Fine Arts degree in Art with a large number of specializations. The diversity of its programs, the quality of instruction, and the professional caliber of its faculty all combine to provide an exceptional opportunity and challenge to students seeking meaningful educational experiences and careers in the visual arts.

The Art Department has curricular programs leading to the following undergraduate degrees: (1) Bachelor of Arts (Art); (2) Bachelor of Arts (Art History); (3) Bachelor of Arts (Art Education); (4) Bachelor of Fine Arts in eight specializations (Photography, Ceramics, Drawing/Painting, Visual Communication (Graphic Design), Illustration, Printmaking, Sculpture, 3-D Media-Fiber/Metal/Wood).

At the graduate level the Art Department offers both the Master of Arts degree and the Master of Fine Arts degree. As the terminal degree for studio artists, the Master of Fine Arts degree requires a minimum of two years and provides eight professional specializations as follows: Ceramics, Drawing/ Painting, Illustration, Photography, Printmaking, Sculpture, 3-D Media-Fiber/Metal/Wood, Graphic Design.

The Master of Arts degree, designed as a oneyear program, is offered by the Art Department in ten specializations; in addition to the seven studio areas listed above, the M.A. degree is granted in Art History and Art Education. The department also offers a graduatelevel Certificate Program in Museum Studies and an interdisciplinary program leading to a Certificate in Biomedical Art.

As is customary in most schools, the Art Department may request projects completed by students for class credit for a short specified period for purposes of promotion and exhibition.

## Admission to Baccalaureate Degree Programs in Studio Art

The number of applicants to several of the programs in Art exceeds the number that can be accommodated. For this reason, the department has been authorized by the California State University to apply supplemental admission criteria. Admission is on a competitive basis, and continuing CSULB students and tansfer applicants will be considered equally. Freshmen applying to the university as Art Education or Art History majors will be admitted to the major if they meet all requirements for admission to the university. Students applying to the B.A. in Studio Art or to one of the BFA degree programs will be admitted as pre-Studio Art majors. Admission as a pre-Studio Art major does not guarantee admission to the major.
Continuing students must apply for admission to the major during the month of November for following fall or during the month of August for admission for the following spring. Applications must be received in time that students can be admitted to a major by the time they reach 60 units.
Transfer applicants must apply during the initial filing period and must designate the major on the application. Students who are not admitted to the major will be admitted to an alternate major if they have listed one on the application. If no alternate major is listed, the student will not be admitted to the university.
Students who qualify for admission to the university will be admitted to the Art Education or Art History major. Students applying for the B.A. in Studio Art, other than for Art Education or Art History, must meet the criteria for admission to the major. Students applying to a B.F.A. program must supply a portfolio of their creative work to the Art Department.

Students who are not admitted to the designated major will be admitted to an alternate major if they have listed one on the application. If no alternate major is listed, the student will not be admitted to the university.

## Admission Under Impaction to the Bachelor of Arts in Studio Art

To be eligible for admission to the Option in Studio Art under the Bachelor of Arts (B.A.), applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 60 units applicable toward a CSULB degree prior to the term for which the application is submitted. Eligible applicants will be selected for admission on a space-available basis based on cumulative grade point average.

## Admission Under Impaction to the Bachelor of Fine Arts Degree

To be eligible for admission to a Bachelor of the Fine Arts (B.F.A.) program, applicants must must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 60 units applicable toward a CSULB degree prior to the term for which the application is submitted. Applicants must provide a portfolio of their creative work to the Department of Art. Your portfolio can be submitted before you enter the Department but it is highly suggested that students interested in the B.F.A. programs enter the university as a Studio Art major, take between six to nine upper division units in the area of specialization, and then submit a portfolio. By doing so, you will become acquainted with the Department and the specific requirements for our portfolio review. You only have two chances to apply for a B.F.A. program. By applying early you may use one of your chances before you are ready.

## Admission Procedures for Change of Major

Currently enrolled students who are undeclared or majors in other departments and who wish to apply for admission to degree programs in art must:

1. Submit a Change of Degree Objective form to the Art Department Student Services Office during the months of November or August;
2. Students applying for the B.F.A. degree programs in Art must also supply transcripts of college-level academic work attempted, and a portfolio of their creative work.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Art

## Option in Studio Art (code ART_BA01) (120 units)

This program is for students who seek a broad understanding and application in art. Total Art units required: 27 lower division, 36 upper division.

## Requirements

Lower Division: AH 113A or 113B or 111C, 111A, 111B; ART 10, 130, 131, 149, 181, 184, 187, plus one course selected from: ART 151A, 151B, 161, 263.
Upper Division:

1. ART 320;
2. Six units of Art History only three of which may be AH 438 or 439;
3. One course from two of the following programs to total 6 units: Drawing and Painting, Printmaking, Illustration , Photography, Graphic Design (Visual Communication);
4. One course from two of the following programs to total six units: Ceramics, Fiber, Metal, Sculpture, or Wood;
5. Plus an additional 12 units upper division from one of the following programs: Art History, Art Education, Ceramics, Drawing and Painting, Fiber, Graphic Design (Visual Communication), Illustration, Metal, Photography, Printmaking, Sculpture, Wood.

## Option in Art History (code ART_BA02) ( 120 units)

This program is for students who wish to specialize in the study of the history of art.

Lower Division: AH 113A, 113B, 111A, 111B, 111C; ART 10, 130, 181; HIST 131, 132, plus one course selected from ART 131, 184, 187, or 263.

Upper Division Art History: AH 307, 497, plus one course selected from AH 308, 309, concentration in "major" field (3 courses from one of the following groups plus required AH 497), plus one course from each of the remaining five groups: I: AH 408, 409, 410; II: AH 423, 424, 425, 426, 427; III: AH 401, 402, 436, 437, 438, 439; IV: AH 466, 467, 468, 469, 470A/B, 471A/B; V: AH 455, 456, 457, 458, 459; VI: AH 416, 417, 465.

Other: A score of 450 in either French or German on the Graduate School Foreign Language Test or complete two years of French or German with an average grade of "B" or better.

## Option in Art Education (code ART_BA03) (120 units)

The Option in Art Education is a four year degree program for students who wish to become art teachers at the middle and secondary school levels (or art specialists at the elementary level). Completion of this major meets the subject matter competence requirement for the Preliminary Single Subject Credential.

## Requirements

Lower Division: AH 113A or 113B or 111C; AH 111A, 111B, ART 10, 130, 131, 151A, 151B, 181, 184, 187.

Upper Division: ART 300, 301, 305, 407, 412, 415: Art History: one course selected from AH455, 456, 457, 458, 469, $466,467,468,469,470 A, 470 B, 471$ A, 471B, and AH 438 or 439; one course selected from ART 381, 383, 384, 385, 387; course selected from Art 328A, 355, 3556, 357A, 357B, 358A, 359A, 362A, 363; one course selected from ART 340, 349, 370, 371A; and one course selected from ART 317, 341A, 341B, 450A.

## Single Subject Art Education Credential (code 110)

In addition to meeting the subject matter competence requirement for the Preliminary Single Subject Credential in Art, prospective art teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may
also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Art Education Advisor early to plan their program. Before student teaching in art, students must pass a portfolio review. A passing score on the CBEST is also required. For information concerning requirements for the B.A. program, teacher preparation, as well as the fifth year for the credential, consult the art education advisor.

The Option in Art Education Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Bachelor of Fine Arts Degree

The Bachelor of Fine Arts degree is offered for the student eventually seeking a Master of Fine Arts degree, the position of a professional artist or designer, and for the student seeking a career of teaching studio art within a selected specialization. The B.F.A. degree program is demanding, requiring high quality performance in order to develop the professional competence of talented students toward successful entrance into the professional art field. There are seven professionally-oriented specialized programs leading to the B.F.A. degree. Total art and support units required: 70 (30 lower division, 40 upper division). Total units for graduation: 132.

## Option in Art Photography (code ART_BF01) (132 units)

Lower Division: AH 113A or 113B or 111C; AH 111A, 111B; ART 10, 130, 131, 141,149, 181; select one from ART 161 or 184.

Upper Division: ART 320, 340, 342A, 406A, 444, 447, 491C, 499V; 473 for a total of 6 units; select one from ART 349, 436A, 475; select two courses from ART 406B, 414, 449; AH 411 and one from AH 438 or 439 ; and six units outside of specialization.

## Option in Ceramics <br> (code ART_BF02) (132 units)

Lower Division: AH 113A or 1113B or 111C; AH 111A, 111B; ART 10, 130, 131, 151A, 151B, 161 or 184, 181, 187.

Upper Division: ART 320, 341A, 341B, 343A, 343B, 352A, 352B, 451A, 451B, 491A: AH 364 and 6 additional units of Art History only 3 of which may be AH 438 or 439; and 9 units outside the specialization.

## Option in Drawing and Painting (code ART_BF03) (132 units)

Lower Division: AH 113A or 1113B or 111C; AH 111A, 111B; Art 10, 130, 131, 181, 184, 187, plus one course selected from: ART 151A, 151B, 161, 263.

Upper Division: ART 320, 381, 383, 384, 387, 388, 499D, 499K, 491G.
Pathway A: ART 483, 484, 492F, 492Z, 481 or 487; AH 6 units, 6 units outside the specialization.
Pathway B: ART 483 or 484, 492G, 481, 487; AH 6 units and 9 units outside of the specialization.

## Option in Illustration (code ART_BF04) (132 units)

Lower Division: AH 113A or 113B or 111C, 111A, 111B; ART 10, 130, 131, 181, 184, 187, 223, 271.

Upper Division: ART 322A, 371A, 371B, 372, 471A, 471B. A minimum of 6 units from ART 373, 385, or 483; select one ART 374A or 499F; ART 382, 383, and 482; 6 units of Art History only 3 of which may be AH 438 or 439 ; and 3 units outside the specialization.

## Option in 3-D Media (Fiber, Metal or Wood) (code ART_BF05) (132 units)

Lower Division: AH 113A or 113B or 111C, 111A, 111B; ART 10, 130, 131, 151A or 151B, 161 or 184, 181, 187, 263. Upper Division: ART 320, 381, 491B; plus one of the following specializations:
Fiber: ART 316, 317, 328A, 428A, 432, 499N; select 3 units from ART 328B, 428B or 430; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.
Metal: ART 357A, 357B, 358A, 358B, 458A, 458B; select 3 units from: ART 355, 356, 359A, 359B, or 499J; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.
Wood: ART 354A, 354B, 454A, 454B, 499B for 9 units; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.

## Option in Printmaking (code ART_BF06) (132 units)

Lower Division: AH 113A or 1113B or 111C; AH 111A, 111B; ART 10, 130, 131, 141 or 149, 181, 184, 187.

Upper Division: ART 320, 370, 376, 377, 378, 379, 381, 475, 480, 499R, 491P; AH 365, 439, and 3 units elective upper division Art History (AH) plus 12 units outside the specialization.

## Option in Sculpture (code ART_BF07) (132 units)

Lower Division: AH 113A or 113B or 111C; AH 111A, 111B; ART 10, 130, 131, 141, 161, 181, 184, 187, 263;

Upper Division: ART 320, 360A, 360B, 362A, 363, 450A, 491F; select two courses from the following: ART 361, 362B, 436A, 436B; AH 438 and 439, and 3 units elective upper division Art History, and 12 units outside the specialization.

## Option in Graphic Design (Visual Communication) (code ART_BF08) (132 units)

Lower Division: AH 113A or 113B or 111C, 111A, 111B; ART 10, 130, 131, 181, 184, 187, 223.

Upper Division: ART 318, 322A, 322B, 323, 325, 326, 329, 331, 422A, 422B; Select 6 units from the following: ART 420, 442, 499S; DESN 368 and 3 units of Art History (AH); and 6 units outside the specialization.

## Certificate Program in Biomedical Art (code ART_CT01)

The Certificate Program in Biomedical Art is an interdisciplinary program sponsored by the Art and Biological Sciences Departments.

Biomedical art is commissioned principally by (1) hospitals or individual researchers for publication, (2) by publishers
and film and television producers serving the biomedical professions, (3) by producers of educational aids for biomedicine. Therefore, proficiency in commercial art and printing procedures including photography and typography is required.

Special permission is not required for a student to pursue the Certificate in Biomedical Art. The student may apply for certification upon completion of the following CSULB course work and conditions:

## Requirements

1. A major in art or biology:
2. A 2.75 overall GPA and 3.25 in the major:
3. 34 units as listed: ART 141 (3), 149 (3), 181 (3), 184 (3), 271 (3), 372 (2), 374A (3), 374B (3), 499F (3); and BIOL 200 (4), 208 (4): the BIOL 200 is waived for Biology majors. Co-directors of the CSULB Biomedical Art program are in Art: Peter Mendez; and in Biological Sciences: Dr. Kenneth Gregory. Questions may be addressed to them during office hours which are listed in the respective departmental offices.

## GRADUATE PROGRAMS

## Master of Arts in Art (code ART_MA01)

## Master of Fine Arts in Art (code ART_MF01)

The Department of Art offers the Master of Arts degree with a Studio Art concentration (33 units), an Art Education concentration (30 units) and an Art History concentration (36 units). The Department also offers the Master of Fine Arts degree with a Studio Art concentration (60 units). All Studio Art concentrations include emphases in: Ceramics, Drawing \& Painting, Fiber, Illustration, Metals, Photography/Digital, Printmaking, Sculpture/Intermedia, and Wood.

## Departmental Review Process

Admission to a degree program at CSULB is a two-part process that requires acceptance by both the department and the University into a specific degree program. (See the detailed information on CSULB graduate application and admission requirements earlier in this catalog.)

For graduate programs, the Art Department accepts applications for Fall admission only, with applications being due by February 1. Application forms are available on the web (www.art.csulb.edu). Application materials must be sent to the Art Department Student Services Office, FA4-106, not to the individual Art Department programs. Some art programs may conduct applicant interviews, in which case they will contact you directly. Acceptance decisions are normally sent out by March 1st.

Acceptance to a degree program in Art: After submitting the Art Department application materials, those who pass the program review are recommended by the faculty to be admitted as either Classified or Conditionally Classified. A Classified Graduate has satisfied all prerequisites. A Conditionally Classified Graduate has outstanding prerequisites to complete. Acceptance is not complete until the applicant files a CSU Graduate Application at the Enrollment Services Office and has received a formal letter of acceptance from this office.

NOTE: The Art Department requires a GPA of 3.0 in upper division (junior and senior level) art prerequisite units for acceptance to our graduate program. All applicants must be accepted by the Art Department in order to be officially accepted by the University. There is no fee for the departmental application process.

Foreign Students must be accepted by the Art Department and pass the TOEFL examination (minimum score of 550) before they can be admitted to the University. Foreign students must apply to CSULB through the Center for International Education at (562) 985-5476.

Degree Outside Art: Those who have a degree in another field need to complete the required Studio Art and/or Art History prerequisites to qualify for applying for the Department of Art MA or MFA degrees.

University Admissions Process: Applicants must file a complete application as described in the California State University Graduate Admissions booklet. CSU general requirements include: a bachelor's degree from a regionally accredited institution; a grade point average of at least 2.5 in the last 60 semester units taken; and good standing at the last college attended.

The open filing periods (at the Enrollment Services Office, Brotman Hall) begin: October 1st for the following Fall semester. Call (562) 985-4145 or 1655 to obtain a CSU application booklet or apply online at www.csumentor.edu There is a $\$ 55.00$ fee for the University application process. (Do not send the Art Department this fee; we will send it back to you.)

## MA and MFA Prerequisites

1. A bachelor's degree from an accredited institution.
2. A minimum of 36 units in Art, including at least 30 at the upper division (300-400) level, and a GPA of 3.0 in upper division Art and Art History units.

## Specific prerequisites for each major:

Art Education applicants must complete 36 units in a combination of Studio Art, Education and Art History classes comparable to those required for an Art Education major at this university:
15 upper division units (junior \& senior level) approved by the Art Education faculty
9 upper division units of Art or Education electives
12 units Art History ( 6 may be lower division, 6 must be upper division)
36 total units required
Art History applicants must complete 36 units comparable to those required for an Art History major at this university:
15 upper division units in Art History, which must include AH 307- Historiography in Art and either AH 308 - Art Theory or AH 309 - Art Criticism.
9 upper division units of Art or Art History electives
$\underline{12}$ units (or the equivalent) of foreign language
36 total units required
NOTE: Art History majors must complete two years (or a minimum of 12 units) of college-level French or German with an average grade of " B " or better, or pass the Art History In-house Foreign Language Exam within the first year of study. (With approval from the Art History faculty, another language may be substituted.)

Studio Art applicants must complete 36 units in Studio Art and Art History comparable to those required for a Studio Art major at this university:
15 (for MA) or 18 (for MFA) upper division units in the specific program area plus the prerequisites for those courses
9 (for MA) or 6 (for MFA) upper division units of Art electives
12 units Art History ( 6 may be lower division, 6 must be upper division)
36 total units required

## Departmental Application Requirements

Art Education: Submit the Department of Art application, a writing sample, a portfolio of studio work, transcripts, and two letters of recommendation
Art History: Submit the Department of Art application, transcripts, and two letters of recommendation
Studio Art: Submit the Department of Art application, a portfolio of studio work, transcripts, and two letters of recommendation
A faculty list is available on the website; contact the appropriate professor if you need particular information on a specific program.

## Transcripts

When you formally apply to the University, two official (sealed) sets are required; send one to Enrollment Services and one to the Art Department.

## Transfer Units

With faculty approval, up to six post-baccalaureate units from another university may be accepted into the MA degree program and up to 24 units (for example, from a previous MA degree) into the MFA degree program. In the case of an existing MA degree from CSULB, the total of 30 units will be accepted into the MFA degree.

## MA and MFA Degree Requirements

1. Successful completion of all MA or MFA course requirements (selection of classes determined by the student and the three faculty members on their Graduate Committee). These include:

## Art Education Concentration for the MA

30 units of approved graduate and asterisked (*) upper division units to include a minimum of 18 in the major. At least $60 \%$ of the 30 units must be 500/600 level courses taken at CSULB, and must include ART 509A, 509B, 601A and 601B. 6 units of graduate level Art History beyond the 12 units taken as prerequisites, to complete a cumulative total of 18 units. Final requirements are the completion of a written Thesis or a Project with a Project Report, documentation, orals and comprehensive exam (ART 698A).

## Art History Concentration for the MA

36 units of approved graduate and asterisked (*) upper division units to include a minimum of 18 units in the major, and 6 units in AH 597 Seminar. At least $60 \%$ of the 30 units must be 500/600 level courses taken at CSULB. Satisfying foreign language proficiency (see Advancement requirements below). The final requirement is the completion of a written Thesis (AH 698). For advancement candidacy, a student must exhibit writing and research skills.

## Museum Studies Emphasis

36 units of approved graduate and asterisked (*) upper division units to include 18 units of specially tracked 500 level courses in museum studies and practices, which include an internship and exhibition. Three Art History courses are also required (AH 310*, 539, and 597). A minimum of 3 additional units in upper division Art History or another approved elective is also required. Satisfying foreign language proficiency as outlined by the MA in Art History. The final requirement is the completion of a written Thesis (AH 698).

## Studio Art Concentration for the MA

33 units of approved graduate and asterisked (*) upper division units to include a minimum of 21 in the major. 6 units of graduate level Art History beyond the 12 units taken as prerequisites, to complete a cumulative total of 18 units. Final requirements are the completion of a Project (ART 698B) and presentation of a Project Exhibition (ART 692) with a written Artist's Statement.

## Studio Art Concentration for the MFA

60 units of approved graduate and asterisked (*) upper division units to include a minimum of 36 in the major. At least $60 \%$ of the 60 units must be 500/600 numbers taken at CSULB. Six units of graduate level Art History beyond the 12 units taken as prerequisites are required, for a cumulative total of 18 units. Six units in Art Department Graduate Seminar courses 690A \& B are also required for the MFA program. Final requirements are the completion of a Project and Project Report (ART 699), and the Project Exhibition (ART 692).
2. A minimum overall GPA of 3.0 , with no grade below a "C".
3. Successful fulfillment of the Graduation Writing

Assessment Requirement (GWAR), usually completed in the first semester in residence at CSULB and required to be fulfilled prior to Advancement to Candidacy.
4. Successful completion of an Advancement to Candidacy review. Reviews occur after taking 15 MA units or 30 MFA units and require the submission of a complete list of coursework for the master's degree. Additional advancement requirements:

- Art Education majors satisfy assigned written topics and prepare an oral defense of their research.
- Art History majors present a qualifying paper and satisfy the language requirement in either French or German (or an approved substitution).
- Studio Art majors participate in a group exhibition in the Art Department galleries and present an oral defense of their work.
If all scheduled units for the MA or MFA degree have been completed but the final written component has not been approved and submitted, registration in GS-700 (I unit, no credit) through University Extension is required in order to maintain in enrollment until the semester of graduation. Care should be taken not to exceed the University limit of seven years for all masters' degrees.

Additional information may be found in the "Department of Art Graduate Guidelines," given to each student accepted into a master's program.

## Graduate Certificate Program in Museum Studies (code ART_CT02)

The Certificate Program in Museum Studies is primarily directed toward graduate students in Art History and the visual arts, but does not exclude students in other fields. The specifically tracked course of study has an emphasis placed primarily on contemporary art. The certificate can be pursued on its own or as a complement to the M.A. or M.F.A. degree. Admission to the program is by permission of the Museum Studies faculty and the head of the Art History Program. Interested students are directed to the Art History Graduate Advisor for an application.

## Requirements

A total of 30 units to include: ART 545A-B, AH 530, 531, 542 (Museum Internship), 539, and 597; plus one course selected from AH 307 or 310 , and additional units selected from AH 599Q or other art history courses, subject to the approval of the Museum Studies faculty.

## Foundation Art

The classes listed below are the foundation art classes that are required of all studio art majors. When foundation classes are chosen, be aware of the prerequisites; do not take the classes out of order.
AH 111A, B,C. Foundation Art History I, II, III
130. Foundation Two-Dimensional
131. Foundation Three-Dimensional
181. Foundation Drawing
184. Foundation Life Drawing
187. Foundation Painting

## Art Courses (ART)

## LOWER DIVISION

## 10. Art Matrix (1)

Participation in art and design exhibitions, openings, lectures and special events.
Required of art majors. Must be repeated to a maximum of 5 units in different semesters. These units do not count toward graduation. Credit/No Credit grading.

## 110. Introduction to the Visual Arts (3)

Prerequisite or corequisite: A General Education Foundation class.
Exploration of meanings, purposes, styles, materials and forms of art and architecture. Multicultural perspective. Development of awareness through examination and comparison of art and artifacts, past and present.

## 130. Foundation Two-Dimensional (3)

Introduction to, and exploration of, basic principles, components and terminology of two-dimensional design. Students apply these in problem solving exercises to develop a working vocabulary of those fundamental visual elements and relationships applicable to all forms of visually creative endeavor.
(6 hrs. lab.) Letter grade only (A-F).
131. Foundation Three Dimensional (3)

Investigation and problems in the organization of threedimensional phenomena.
(6 hrs. lab.) Letter grade only (A-F).

## 141. Basic Photography (3)

Prerequisites: ART 130, 181.
A beginning course to familiarize students with the fundamentals of black and white photography. Units pertaining to cameras, darkroom techniques, photographic vision and critical issues.
(6 hrs. lab.) Letter grade only (A-F).
149. Introduction to Computer Art (3)

Prerequisites: ART 130.
Introduction to basic operating characteristics of computer and project-based creative exploration of major art-related software programs such as Illustrator, Photoshop QuarkXpress, Painter, Dimensions, etc., exposure to research and connectivity capabilities Not open for credit to students with credit in ART 349A. (6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

151A. Beginning Ceramics: Handbuilding (3)
Prerequisites/Corequisites: ART 131.
Introduction to ceramics as an art making material using handbuilding techniques such as slab, coil, and molding, including glazing and processes.
(6 hrs. lab.) (CAN ART 6) Letter grade only (A-F).

## 151B. Beginning Ceramics: Wheel Throwing (3)

Prerequisites/Corequisites: ART 131.
Introduction to ceramics as art making material emphasizing the use of the potters wheel to develop forms. Includes glazing and firing.
(6 hrs. lab.) Letter grade only (A-F).

## 161. Foundation Life Sculpture (3)

Prerequisites/Corequisites: ART 131,181, or consent of instructor.
Modeling from the human figure with emphasis on composition.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

## 181. Foundation Drawing (3)

Introduction to drawing with emphasis on perspective, light, shadow, and volume in composition using a variety of media.
(6 hrs. lab.) (CAN ART 8) Letter grade only (A-F).

## 184. Foundation Life Drawing (3)

Prerequisites: ART 181.
Introduction to drawing from the human figure.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
187. Foundation Painting (3)

Prerequisites: ART 130, 181.
Introduction to painting problems using opaque media.
(6 hrs. lab.) (CAN ART 10) Letter grade only (A-F).

## 221. Shop Orientation (1)

Familiarity with student workshop facilities, specific instruction on safety procedures and methods in use of tools and equipment. Safety lectures and technical demonstrations followed by handson experience. Projects familiarize students with machinery and facilitate the acquisition of basic woodworking skills.
Credit/No Credit grading only. (2 activity hours)
223. Lettering-Typography (3)

Prerequisite: ART 181, 130.
Introduction to historic and contemporary letterforms, with emphasis on recognition, construction and representation. Students apply design fundamentals to modification, combination and composition of existing typographic forms. Computers may be utilized.
( 6 hrs. lab.) Letter grade only (A-F). Course fee may be required.
263. Beginning Sculpture (3)

Prerequisites/Corequisites: ART 131, 181, or consent of instructor.
Principles of sculpture expressed through basic experiences in modeling, carving, construction and mold making.
( 6 hrs lab) (CAN ART 12) Letter grade only (A-F).

## 271. Rendering (3)

Prerequisite: ART 181, 130.
Graphic visualization for convincing representation. (6 hrs. lab.) Letter grade only (A-F).

## Art Education

(ART 407 and 499P are acceptable for the M.A. with a specialization in Art Education.)
300. Art, Adolescence, and the Child
*301. Cross-Cultural Perspectives in Art Education
305. Art Disciplines and New Technology
*407. Art Practicum
412./512. Aesthetic Theories and Art Education
415. On-Site Studies in Art Education
*499P. Special Studies in Art Education

## Art History

AH *307. Historiography in Art
AH *308. Western Art Theory and Criticism to the Mid-Nineteenth Century
AH *309. Western Art Theory and Criticism Mid-Nineteenth to MidTwentieth Century
AH *310. Western Art Theory and Criticism Mid-Twentieth Century to Present
AH *364. History of Ceramics 1900 to Present
AH *365. History of Prints and Drawings
AH 401./501. American Art to 1900
AH 402. The Rise of Landscape Painting
AH 408./508. Early Christian and Byzantine Art
AH 409./509. Romanesque Art
AH 410./510. Gothic Art
AH 411./511. History and Criticism of Photography
AH 416./516. Greek Art
AH 417./517. Roman Art
AH 423./523. Early Renaissance Art in Italy
AH 424./524. High Renaissance Art in Italy
AH 425./525. Northern Renaissance Painting
AH 426./526. Baroque Art in Spain, the Netherlands, and England
AH 427./527. Baroque Art in Italy, France, and Germany
AH 431./531. History of Museums and Exhibitions
AH 430./530. Museum Practices
AH 436./536. Neo-Classicism to Romanticism, 1789-1850
AH 437./537. Impressionism to Post-Impressionism, 1850-1900
AH 438./538. Twentieth Century Art to 1945
AH 439./539. Twentieth Century Art from 1945
AH 440. Art and Society
AH 455./555. Traditional Art of Africa: A Thematic Approach
AH 456./556. American Indian Art: Western Perspectives
AH 457./557. Pre-Columbian Art
AH 458./558. Modern Latin American Art
AH 459./559. Contemporary Latin American Art
AH 465./565. Ancient Art of the Near East
AH 466./566. Buddhist Art of India and S.E. Asia

AH 467./567. Hindu and Islamic Art of India
AH 468./568. Early Chinese Art
AH 469./569. Later Chinese Art
AH 470A./570A. Japanese Buddhist Art to 1500
AH 470B./570B. Japanese Art 1500-1868
AH 471A. Modern Japanese Graphic Art
AH 471B. Modern Japanese Plastic Art
AH 495. Independent Study In Art History
AH 496. Special Studies in Art History
AH 497./597. Seminar in Art History
AH 498. Special Topics in Art History
AH 499Q. Special Studies in Museum Studies

## Ceramics

*341A. Intermediate Ceramics: Handbuilding
*341B. Intermediate Ceramics: Wheel Throwing
*343A. Ceramics Sculpture
*343B. Advanced Wheel Throwing
*352A. Ceramics: Glaze Technology
*352B. Ceramics Plaster Shop
*451A-B. Advanced Ceramics
453./573. Seminar in Ceramic Arts

491A. Ceramics: Senior Project
*499A. Special Studies in Ceramics

## Drawing and Painting

381. Intermediate Drawing
*383. Life Painting
382. Intermediate Life Drawing
*385. Watercolor Painting
*387. Painting
*388. Color Theory and Composition
*389. Materials and Craft of Drawing and Painting
*481. Advanced Drawing
*483. Advanced Life Painting
*484. Advanced Life Drawing
*487. Advanced Painting
*492F. Concentrated Studies in Life Drawing
*492G. Concentrated Studies in Abstract Painting
*492Z. Concentrated Studies in Life Painting
*499D. Special Studies in Drawing
*499K. Special Studies in Painting

## Fiber

*316. Surface Design
*317. Surface Design
*328A. Fiber: Sculpture
*328B. Fiber: Sculpture
*428A-B. Weaving
*430. Fiber: Papermaking and Artist Books
*432. Fiber: Advanced
491B. 3-D Media -:Senior Project
*499N. Special Studies in Fiber

## Graphic Design (Visual Communications)

318. Typographic Design
*322A-B. Visual Communication Design
*323. Visual Communication Design/Production
*324. Visual Communication Design/Portfolio Preparation
*325. Packaging Design
*326. Computer Graphics
*329. Advertising Design
*331. Visual Communications Design/Concept Development
*386A-B. New Media Design
*420. Visual Communication Design Workshop
*422A-B. Advanced Visual Communications Design
*442. Internship in Visual Communications
*486. Advanced New Media Design
*499S. Special Studies in Visual Communications Design

## Illustration and Biomedical Art

*371A-B. Illustration
*372. Anatomy for Artists
*373. Costumed Figure Drawing
*374A-B. Biomedical Rendering
*382. Production for Fine Arts
*471A./B. Advanced Illustration
472./572. Storyboarding for Film and Television
*482. Sequential Imagery
*499F. Special Studies in Illustration

## Metal

*355. Enameling
*356. Jewelry Casting
*357A-B. Beginning Metals and Jewelry
*358A-B. Metalsmithing
*359A. Architectural Metalwork and Blacksmithing
*359B. Sculptural Metalwork
*458A,B. Advanced Metalsmithing/Jewelry and Enameling
491B. Senior Project
*499J. Special Studies in Metalsmithing and Jewelry

## Museum Studies

AH *431. History of Museums and Exhibitions
AH *499Q. Special Studies in Museum Studies

## Photography

*340. Intermediate Photography
*342A. Color Photography
*406A. Digital Imagery for the Arts
*406B. Advanced Digital Imagery for the Arts
414./514. Documentary Photography
*444. Fine Print Photography
*447. Photography Studio Specialties
*449. Experimental Practives in Photography
*473. Seminar in Photo-Based Art
491C. Photography - Senior Project
*499V. Special Studies in Art Photography

## Printmaking

370. Printmaking
*376. Printmaking: Relief Printing
*377. Printmaking: Silkscreen
*378. Printmaking: Etching
*379. Printmaking: Lithography
*475. Printmaking: Photo Processes
*480. Printmaking: Monotype/Monoprint
491P. Printmaking: Senior Project
*499R. Special Studies in Printmaking

## Sculpture

*360A. Intermediate Sculpture
*360B. Intermediate Sculpture
*361. Life Sculpture
*362A. Sculpture Foundry: Investment Casting
*362B. Sculpture: Molding and Reproduction
*363. Sculpture: Carving and Fabrication
436A./536A. Video Art
436B./536B. Video Art
*450A,B. Intermedia
*460A.,B. Advanced Sculpture
*461. Advanced Life Sculpture
*491F. Sculpture Senior Project
*499M. Special Studies in Life Sculpture
*4990. Special Studies in Studio Sculpture

## Wood

*354A-B Wood
*454A-B. Handcrafted Furniture
491B. 3-D Media Fiber/Metal/Wood and Integrated Media: Senior Project
*499B. Special Studies in Wood

## Art Courses (ART)

## UPPER DIVISION

## 300. Art, Adolescence, and the Child (3)

Experiences in self-expression from the California Visual and Performing Arts Framework while addressing children's artistic and aesthetic development. Following state content standards, students develop aesthetic perception, learn skills for talking about art, and gain understanding in historical and cultural contexts. ( 6 hrs. lab.) Letter grade only (A-F).

## *301. Cross Cultural Perspectives in Art Education (3)

Prerequisites: Completion of 12 units of Art Foundation.
Theory and practice as understood in and across cultures. Application of the state content standards as written in the California Visual and Performing Arts Framework and reflecting racial, ethnic, linguistic, gender, sexual, cultural and cross-cultural perspectives.
(6 hrs. lab.) A minimum of 15 hours of community service learning required. Letter grade only (A-F).

## 305. Art Disciplines and New Technology (3)

Prerequisites: Completion of 12 units of Art Foundation.
Develops skills in making and talking about art through interrelating art production with art criticism, cultural-historical connections, and philosophical aesthetics. Emphasizes newer art forms and technology, including video and computer, providing additional approaches for the artist and art educator.
Course fee may be required. ( 6 hrs. lab.) Letter grade only (A-F).
309. Studio Art For Educators (3)

Examines studio art with educational practices. Concepts, methods, and evaluative techniques are explored within the production of artwork emphasizing art and education issues which impact one another in various educational settings following state content standards.
(6 hrs. lab.) Letter grade only (A-F).
*316. Fiber: Pattern Design and Printing (3)
Prerequisites: ART 130, 131, 181, 187; six units from AH 111A, 111B, 111C.
Variety of design concepts for both hand and commercial application of pattern to textiles and other surfaces. To include pattern system design, stamping, and silkscreen printing.
(6 hrs. lab) Letter grade only (A-F).

## *317. Fiber: Textile Dyeing (3)

Prerequisites: ART 130, 131, 181, 187; six units from AH 111A, 111B, 111C.
Variety of design concepts and processes to include chemical and antural dye technology with discharge, shibori, batik, and direct painting techniques.
Not open for credit to students with credit in ART 327B. (6 hrs. lab.) Letter grade only (A-F).

## 318. Typographic Design (3)

Prerequisites: ART 130, 181, 184, 223; six units from AH 111A, 111B, 111C; or consent of instructor.
More complex design experiences with type families, exploration of combinations of display and text; development of logotypes and design of new typographic forms. Computers may be utilized.
( 6 hrs. lab.) Letter grade only (A-F). Course fee may be required.
320. Practical and Theoretical Issues in the Visual Arts (3)

Focus on developments in art of 60s through present. Consideration of factors that shape the face of contemporary art. Includes lectures, slide presentations, screenings and guest lectures from artists.
Not open for credit to students with credit in ART 320A. (6 hrs. lab.) Letter grade only (A-F).
*322A,B. Visual Communication Design $(3,3)$
Prerequisites: For ART 322A: ART 130, 131, 181, 184, 187, 223 and 6 units from AH 111A, 111B, 111C. For ART 322B: ART 322A, 323.
Introductory and intermediate experiences in conceptualization, design and finalization of projects appropriate to the visual communication profession. Computers may be utilized.
( 6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *323. Visual Communication Design/Production (3)

Prerequisites: Visual communications major or consent of instructor. Computer-based introduction to design and production techniques for major printing processes from concept to digital finished art. Field trips, lectures, critiques.
( 6 hrs. lab.) Letter grade only (A-F).

## 324. Visual Communication Design/Portfolio Preparation

 (3)Prerequisites: ART 318, ART 322A, ART 331, ART 326.
Designed for pre-graphic design majors and art majors who will graduate with emphasis in graphic design. Students present new or revised class work for critiques to improve their portfolios. Only two pieces will be critiqued from each student during class session. Critiques include short lectures on portfolio preparation, individual and group critiques. All completed work will be reviewed at end of semester.
(6 hrs. lab.) Letter grade only (A-F).

## *325. Packaging Design (3)

Prerequisite: Visual Communications major or consent of instructor. Materials, processes and the design of packaging.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.
*326. Computer Graphics (3)
Prerequisites: ART 322A.
Entry level introduction to the graphics-oriented computer, emphasizing its potential as a visual communication design tool. Includes "hands on" exploration of the major software applications as related to layout, typography and illustration.
( 6 hrs. lab.) Letter grade only (A-F). Course fee may be required.
*328A. Fiber: Sculpture (3)
Prerequisites: ART 130, 131, 181, 187; six units from AH 111A, 111B, 111C.
Introductory course explores concepts and materials using nonloom textile techniques. Development from 2-D relief surface to full 3-D for. Basic fiber structures of stitching, wrapping, feltmaking, papermaking, and coiling introduced.
(6 hrs. lab) Letter grade only (A-F).
*328B. Fiber: Sculpture (3)
Prerequisites: ART 328A.
Designed to strengthen a working understanding on non-loom fiber structures. Eemphasis on development of personal expression within media.
(6 hrs. lab) Letter grade only (A-F).
*329. Advertising Design (3)
Prerequisites: ART 322A, 331, majors only.
Explores small space advertising, television, and outdoor billboards from the conceptual stage through comprehensive layouts.
( 6 hrs. lab.) Letter grade only (A-F).

## *331. Visual Communications Design/Concept Development (3)

Prerequisites: ART 130, 181, 184, 187, 318, 322A; 6 units from AH 111A, 111B, 111C.
Development of conceptual thinking and visual representational skills from thumbnail sketches to full size layouts covered.
Emphasis on various approaches to problem solving in advertising and design. Corporate identity and page layout addressed.
(6 hrs. lab.) Letter grade only (A-F).
*340. Intermediate Photography (3)
Prerequisites: ART 130, 141, 181, 184, 187; 6 units from AH 111A, 111B, 111C.
More advanced black and white darkroom and camera work. An introduction to the view camera as well as the development of a body of work.
(6 hrs. lab.) Letter grade only (A-F).
*341A. Intermediate Ceramics: Handbuilding (3)
Prerequisites: ART 130, 131, 151 A, 181; six units from AH 111A, 111B, 111C.
Design problems with handbuilt ceramic forms with emphasis on surface.
(6 hrs. lab.) Letter grade only (A-F).
*341B. Intermediate Ceramics: Wheel Throwing (3)
Prerequisites: ART 130, 131, 151 B, 181; six units from AH 111A, 111B, 111C.
Design problems with wheel-thrown ceramic forms with emphasis on surface.
(6 hrs. lab.) Letter grade only (A-F).
*342A. Color Photography (3)
Prerequisite: ART 340.
Survey of current color materials and processes with emphasis on exposing, developing and printing. Contemporary approach to color photography will be stressed.
(6 hrs. lab.) Letter grade only (A-F).
*343A. Ceramics Sculpture (3)
Prerequisites: ART 341A.
Advanced studies in ceramic sculpture.
(6 hrs. lab.) Letter grade only (A-F).
*343B. Advanced Wheel Throwing (3)
Prerequisites: ART 341B.
Advanced studies in ceramic form employing the potters wheel. (6 hrs. lab.) Letter grade only (A-F).
*349. Computer Art (3)
Prerequisites: ART 149, six units from AH 113A, 113B, 111A, 111B, 111C.

Basic theory and hands-on use of microcomputers employing graphics in "Paint Programs" with color hardcopy output and animation production on video tape. Emphasis on computer graphic applications in students' individual studio art disciplines.
Not open for credit to students with credit in ART 349B. (6 hrs. lab) Letter grade only (A-F). Course fee may be required.
*352A. Ceramics: Glaze Technology (3)
Prerequisite: ART 130, 131, 151A or 151B, 181; six units from AH 111A, 111B, 111C.
Nature of raw materials as they relate to the development of clay bodies and ceramic glazes.
(6 hrs. lab.) Letter grade only (A-F).

## *352B. Ceramics Plaster Shop (3)

Prerequisites: ART 130, 151A or 151B, 181; six units from AH 111A, 111B, 111C.
Use of plaster molds for making ceramic art including press molds, slip casting, and jiggering.
(6 hrs. lab.) Letter grade only (A-F).
*354A. Introduction to Wood (3)
Prerequisites: ART 130, 131, 181, 221; six units from AH 111A, 111B, 111C.
Introduction to tools, techniques, and concepts used in making of handcrafted wood objects. Basic shaping techniques of carving, joinery, and construction with intent of understanding character and language of wood.
(6 hrs. lab) Letter grade only (A-F).

## *354B. Intermediate Wood (3)

Prerequisites: ART 130, 131, 181, 221; six units from AH 111A, 111B, 111C.
Intermediate study of tools and processes of making complex wooden structures. Layout techniques, joinery methods, and nonrectilinear form are explored in greater detail.
( 6 hrs. lab) Letter grade only (A-F).

## *355. Enameling (3)

Techniques, materials, and concepts of enameling on metals. Introduction to tools and metalworking techniques associated with making enameled metal objects. Emphasis on exploration of characteristics of enamels and metals, stressing individual advancement of interest and expression.
Course fee required. May be repeated once for credit. (6 hrs. lab.) Not open for credit to students with credit in ART 355A. Letter grade only (A-F).
*356. Jewelry Casting (3)
Prerequisite: ART 130, 131, 181; six units from AH 111A, 111B, 111C; or consent of instructor.
Design and creation of jewelry through lost-wax casting techniques and processes.
Course fee may be required. May be repeated to a maximum of 6 units. (6 hrs. lab.)
*357A-B. Beginning Metals and Jewelry (3-3)
Prerequisites: For ART 357A: ART 130, 131, 181, 187; six units from: AH 111A, 111B, 111C. For ART 357B: ART 357A.
Design and creation of jewelry.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*358A. Metalsmithing (3)
Prerequisites: ART 357A.
Design and creation of flatware and hollowware.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*358B. Metalsmithing (3)
Prerequisites: ART 357A.
Design and creation of flatware and hollowware.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*359A. Architectural Metalwork and Blacksmithing (3)
Prerequisite: ART 130, 131, 181; six units from AH 111A, 111B, 111C.
Techniques, materials and concepts of metal craft for developing art forms in larger scale and in architectural context. Hot forging and fabricating with ferrous metals. Basic techniques of cutting, forming, joining welding and surface design of metals. Making of tools.
May be repeated to a maximum of 6 units. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

## *359B. Sculptural Metalwork (3)

Prerequisite: ART 130, 131, 181; six units from AH 111A, 111B, 111C. Introduction to metalforming and construction techniques in the design and creation of sculptural form and composition in metal on an architectural scale.
May be repeated to a maximum of 6 units. Course fee may be required. ( 6 hrs . lab.) Letter grade only (A-F).

## *360A. Intermediate Sculpture (3)

Prerequisites: ART 130, 131, 161, 181, 263; 6 units from AH 111A, 111B, 111C or consent of instructor.
Exploration and refinement in wide range of sculptural techniques and strategies. Introduction to installations and public work. Some work wil be with time-based kinetic art. Course will include introduction to 3-D art theory.
(6 hrs. lab.) Letter grade only (A-F).
*360B. Intermediate Sculpture (3)
Prerequisites: ART 360A or consent of instructor.
Exploration and refinement in a wide range of sculptural techniques and strategies. Introduction to installations and public work. Some work will be with time based kinetic art. Will include introduction to 3-D art theory.
(6 hrs. lab.) Letter grade only (A-F).
*361. Life Sculpture (3)
Prerequisite: ART 130, 131, 161,181; six units from AH 111A, 111B, 111C.
Intensive study of the figure through individual student concepts. Mold and casting techniques and direct plaster parging.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*362A. Sculpture Foundry: Investment Casting (3)
Prerequisites: ART 130, 131, 161, 181; six units from AH 111A, 111B, 111C.
Traditional lost wax techniques of casting non-ferrous metal. Wax formation and manipulation, gating theory and practice. Investment procedures, foundry management, metal casting, patination and tool making.
(6 hrs. lab.) Letter grade only (A-F).

## *362B. Sculpture: Molding and Reproduction (3)

Prerequisites: ART 130, 131, 161, 181; six units from AH 111A, 111B, 111C.

Construction and use of flexible and plaster molds.
(6 hrs. lab.) Letter grade only (A-F).

## *363. Sculpture: Fabrication and Carving (3)

Prerequisites: ART 130, 131, 161, 181, 263; six units from AH 111A, 111B, 111C, or consent of instructor.
Exploration of fabrication using a number of materials, such as metal, wood, fabric, and objects, along with carving techniques in both traditional and non-traditional materials. Emphasis will be on techniques, personal content, and form.
(6 hrs. lab.) Letter grade only (A-F).

## *370. Printmaking (3)

Prerequisites: ART 130, 131, 181, 187; six units from AH 111A, 111B, 111C.
Studio course exploring a range of printmaking techniques and imagery, selected from the areas of etching, lithography, silkscreen, relief and monoprinting.
(6 hrs. lab.) Letter grade only (A-F).
*371A,B. Illustration $(3,3)$
Prerequisites/Corequisites: For ART 371A: ART 130, 131, 181, 184, 187; six units from AH 111A, 111B, 111C. For ART 371B: ART 223 and 271 as prerequisite or corequisites; 371A.
Editorial and advertising drawing, professional media, skills and techniques survey.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *372. Anatomy for Artists (3)

Prerequisites: ART 130, 131, 181, 184; six units from AH 111A, 111B, 111C.
Skeletal and muscle structure emphasizing the development of skill in depicting the human figure.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

## *373. Costumed Figure Drawing (3)

Prerequisites: ART 371A, 372; six units from AH 111A, 111B, 111C.
Drawing from costumed models with props and controlled
lighting. Emphasis on development of "staging." Manipulation of composition, light, shadow, value, color, proportion, and scale are explored to achieve mood, gesture, drama, and attitudes related to human reactions, situations and character.
(6 hrs. lab.) Course fee may be required. Letter grade only (A-F).
*374A,B. Biomedical Rendering $(3,3)$
Prerequisite: ART 130, 184, 187; six units from AH 111A, 111B, 111C; or consent of instructor.

Introduction to and practice in techniques of descriptive drawing and press reproduction of drawing. Emphasis on skill.
(6 hrs. lab.) Letter grade only (A-F).

## *376. Printmaking: Relief Printing (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Instruction in relief printing techniques and image development, including woodcut, wood engraving, linocut, collagraphs and alternative print surfaces. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

## *377. Printmaking: Silkscreen (3)

Prerequisites: ART 130, 181, 184; six units from AH 111A, 111B, 111C.

Instruction in fine art screen printing techniques and image development, including resist, paper, film, emulsion and alternative stencil methods.
(6 hrs. lab.) Letter grade only (A-F).
*378. Printmaking: Etching (3)
Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Instruction in intaglio printing techniques and image development, including etching, engraving, dry-point, aquatint and alternative platemaking methods. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

## *379. Printmaking: Lithography (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Instruction in stone lithography techniques and image development, including crayon drawing, flats, washes, transfers and alternative drawing methods. In black and white and color. (6 hrs. lab.) Letter grade only (A-F).

## 381. Intermediate Drawing (3)

Prerequisites: ART 130, 181, 184; six units from AH 111A, 111B, 111C.

Problems and concepts in drawing using a variety of media.
(6 hrs. lab.) Letter grade only (A-F).
*382. Production for Fine Art (3)
Prerequisites: ART 223 or consent of instructor.
Exploration of printing and reproduction process related to needs of artist, illustrator, and museum professional. Introduction to skills and vocabulary necessary for preparation of art for print and electronic media. Emphasis on interaction with various commercial production professionals.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *383. Life Painting (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Painting from the human figure with emphasis on representing form in space, structure, color, value, and composition.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*384. Intermediate Life Drawing (3)
Prerequisites: ART 130, 181, 184; six units from AH 111A, 111B, 111C.
Continued study in drawing from the human figure from direct observation.
Course fee may be required. ( 6 hrs . lab.) Letter grade only (A-F).
*385. Watercolor Painting (3)
Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Nature and use of the watercolor media.
(6 hrs. lab.) Letter grade only (A-F).
*386A. New Media, Motion Graphic Design (3)
Prerequisites: ART 326 or consent of instructor.
Basic theory and use of motion graphic software with emphasis on concept, theory, historical precedence, and aesthetics as relates to motion graphic design. Hands on approach to major motion graphic, and interactive software applications with focus on layout, typography, color, movement and animation.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *386B. New Media, Web Design (3)

Prerequisites: ART 326 or consent of instructor.
Basic theory and use of web design software with emphasis on concept, theory, design, business practices, and aesthetics as it relates to web design. Hands on approach to major web and interactive software applications with focus on interactivity, typography, color, movement and animation.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *387. Painting (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Problems and concepts in space, form, structure, color and content in studio painting.
(6 hrs. lab.) Letter grade only (A-F).

## *388. Color Theory and Composition (3) C7

Prerequisites: ART 130 and 6 units selected from AH 111A, 111B, 111C.
Focuses on visual and aesthetic interactions of color as pertains to painting. Utilizes theories of colorists such as Itten, Albers, Hofmann to study distinct color properties and functions. Combines lecture, demonstration, and critique with hands-on exploration, problem solving.
Not open for credit to students with credit in ART 182.) Letter grade only (A-F).
*389. Materials and Techniques of Drawing and Painting (3) Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Theory and practice in the craft of drawing and painting.
May be repeated to a maximum of 6 units in different semesters. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

## 406A./506A. Digital Imagery for the Arts (3)

Prerequisites: ART 149, 340, or consent of instructor.
Examination of digital imaging through Adobe Photoshop software. Emphasis on relationship of digital imaging to photography. Variety of exercises sharpen skills and reveal new thinking strategies necessary for fluency in digital media. Concentration on theory of media and representation as well as individual projects.
(6 hrs lab.) Letter grade only (A-F). Course fee may be required.

406B./506B. Advanced Digital Imagery for the Arts (3)
Prerequisites: ART 406A or 506A, 444.
Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

## *407. Art Practicum (3)

Prerequisite: Completion of 12 units of Art Foundation.
Attitude and skill development for production, evaluation, and appreciation of visual arts. Consideration for art processes and product in ethnically diverse societies. Inquiry methods of artists, critics, historians, and aestheticians examined for active learning. Art Education Bound Portfolio addressed.
Course fee may be required. ( 6 hrs lab) Letter grade only (A-F).
*412. Aesthetic Theories and Art Education (3)
Prerequisites: Completion of 12 units of Art Foundation.
Past and current philosophical writings of aestheticians, critics, artists, and art educators will be investigated with theoretical, practical, and cross-cultural implications for the arts educator. Letter grade only (A-F).

## 414./514. Documentary Photography (3)

Prerequisites: ART 340, 444, or consent of instructor.
History, theory, practice, and production of still documentary photographic works with emphasis on the photograph as an instrument for social influence and change.
(6 hrs. lab.) Letter grade only (A-F).
*415. On-Site Studies in Art Education (3)
Prerequisites: Completion of 12 units of Art Foundation.
Theory generated and practiced during study and participation at approved sites including The Art Workshop for Youth and Art to Schools Program. Consideration to state and national standards involving multifaceted, cross-cultural, and interdisciplinary experiences with art.
(6 hrs lab) Letter grade only (A-F).
*420. Visual Communication Design Workshop (3)
Prerequisite: Consent of instructor and portfolio review; majors only.
On-campus design studio experience oriented toward development of printed portfolio-quality design work. Professional designer/art director environment with involvement in actual projects with clients, budgets and deadlines. Students responsible for all project phases from design to production, print supervision and completion.
May be repeated to a maximum of 9 units. ( 6 hrs . lab.) Letter grade only (A-F). Course fee may be required.
*422A,B. Advanced Visual Communications Design $(3,3)$
Prerequisites: For ART 422A: ART 322B, 323, 325. For ART 422B:
ART 422A.
ART 422A involves advanced projects in computer-based design, typography, photographic modification and grid layout systems development.
ART 422B emphasizes advanced advertising design, art direction and campaign development for the advertising agency environment.
( 6 hrs . lab.) Letter grade only (A-F). Course fee may be required for 422A.

## *428A,B. Fiber: Woven Structures $(3,3)$

Prerequisites: For ART 428A: ART 130, 131, 181, 187; six units from AH 111A, 111B, 111C. For ART 428B: ART 428A.
Techniques and materials of woven structural textile design with emphasis on personal expression with the contemporary idiom. To include loom and off-loom processes.
(6 hrs lab.) Letter grade only (A-F).

## *430. Fiber: Papermaking and Artist Books (3)

Prerequisite: ART 328A.
Basic materials and techniques of papermaking and handmade artist books with an emphasis on concept and form development.
May be repeated to a maximum of 6 units. ( 6 hrs. lab) Letter grade only (A-F).

## *432. Fiber: Advanced (3)

Prerequisites: ART 130, 131, 181, 187 and 6 units chosen from ART 327, 328, 317, and 428A or 430).
Designed for the advanced Fiber students. Students will work on conceptual assignments using materials and media from a wide range of fiber processes of their choice. there will be some reading and group discussion assignmetns as well.
May be repeated to a maximum of 6 units. ( 6 hrs. lab) Letter grade only (A-F).

## 436A./536A. Video Art (3)

Historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media.
Course fee may be required. ( 6 hrs. lab.) Letter grade only (A-F).

## 436B./536B. Video Art (3)

Prerequisites: ART 436A.
Continuation of Art 436A. Advancement in historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
440./540. Art in Public Places: Theory and Practice (3)

Prerequisites: ART 130, 131, and 6 units of Art History selected from AH 111A, 111B, 111C, or by consent of instructor.
Exploration of media and strategies recently introduced to field of sculpture, including performance, installation, video, electronic media and other time-based media and mass media.
( 6 hrs. lab.) Letter grade only (A-F).
*442. Internship in Visual Communications (3)
Prerequisite: Visual Communications major or consent of instructor.
Student internship experience in selected studios, advertising agencies and in-house creative departments. Opportunity to work under supervision of professionals in the field for six hrs. per week.
May be repeated to a maximum of 6 units in different semesters. (6 hrs. lab.)

## *444. Advanced Black and White Photography (3)

Prerequisite: ART 340.
Presentation of advanced printing techniques and darkroom skills. Includes printing chemistry, photographic papers and refined negative making as well as further exploration of the view camera.
(6 hrs. lab.) Letter grade only (A-F).

## *447. Photography Studio Specialties (3)

Prerequisites: ART 340, 444.
Designed to explore camera, laboratory techniques and professional practices as applied to studio work in photography. (6 hrs. lab.) Letter grade only (A-F).
*449. Experimental Practices In Photography (3)
Prerequisites: ART 340.
Course work to generate experimental solutions to conceptual problems. Emphasis placed on contemporary approaches to the photograph and the exploration of new ideas for the development of photographic art.
(6 hrs. lab.) Letter grade only (A-F).

## *450A. Intermedia (3)

Prerequisites/Corequisites: ART 360A or consent of instructor.
Exploration of media and strategies recently introduced to field of sculpture, including performance, installation, video, electronic media and other time-based media and mass media.
(6 hrs. lab.) Letter grade only (A-F).
*450B. Intermedia (3)
Prerequisites/Corequisites: ART 360A, 450A or consent of instructor.
Continuation of 450A. Exploration of media and strategies recently introduced to the field of sculpture, including performance, installation, video, electronic media and other time-based media and mass media.
(6 hrs. lab.) Letter grade only (A-F).

## *451A-B. Advanced Ceramics (3-3)

Prerequisite: A: ART 343A or 343B. B: ART 451A.
Individual problems in ceramics.
(6 hrs. lab.) Letter grade only (A-F).

## *453. Seminar in Ceramic Arts (3)

Prerequisite: Senior Ceramics major or consent of instructor.
Critical analysis of work of historical and contemporary ceramic artists; the changing role of ceramic art as it becomes part of the contemporary art mainstream.
May be repeated to a maximum of 6 units with different artists in different semesters. Letter grade only (A-F).
*454A,B. Advanced Wood $(3,3)$
Prerequisites: ART 354A and 354B.
Development of individual problems and expression in creation of wooden art/craft structures. Emphasis on exploring personal expression through focused study of chosen techniques and discussion of related wood issues and aesthetics.
(6 hrs. lab) Letter grade only (A-F).

## *458A,B. Advanced Metalsmithing/ Jewelry and Enameling (3,3)

Prerequisites: ART 357B, 358B or consent of instructor.
Individual problems in metalsmithing, jewelry, enameling and architectural metalwork and blacksmithing.
Course fee may be required. ( 6 hrs. lab.) Letter grade only (A-F).
*460A. Advanced Sculpture (3)
Prerequisites: ART 130, 131, 149 or 349, 161; six units from AH $111 \mathrm{~A}, 111 \mathrm{~B}, 111 \mathrm{C}$, or consent of instructor.
Within problem-solving assignments, students work with media and content of choice, exploring new material. Utilizes strategies such as installations, site work, time-based art, and includes some theory and discussions on art-related issues.
(6 hrs. lab) Letter grade only (A-F).
*460B. Advanced Sculpture (3)
Prerequisites: ART 460A or consent of instructor.
Within problem-solving assignments, students work with media and content of choice, exploring new materia. Utilize strategies such as installations, site work, time-based art, includes some theory and discussions on art-related issues.
(6 hrs. lab) Letter grade only (A-F).

## *461. Advanced Life Sculpture (3)

Prerequisites: ART 361, 362A and B.
Large-scale sculpture from the model emphasizing expressive content. Work in clay and plaster, armature and stand construction, oil-clay formulation and advanced moldmaking techniques.
Course fee may be required. ( 6 hrs. lab.) Letter grade only (A-F).
*471A,B. Advanced Illustration $(3,3)$
Prequesites: For ART 471A: ART 371B: For ART 471B: ART 471A. Illustraton in part from live models.
ART 471B is open only to students in the Illustration option. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F)

## 472./572. Storyboarding for Film and Television (3)

Prerequisites: ART 130, 181, 184, 271 or consent of instructor.
Storyboarding for television commercials and feature films. Focuses on sequential structure of film including pacing and continuity related to storytelling. Includes discussion of camera movement, uses of storyboards, emphasis on drawing skills needed to visually communicate ideas for entertainment industry.
(6 hrs. lab.) Letter grade only (A-F).

## 473./573. Seminar in Photo-Based Art (3)

Prerequisite: Advanced standing in Photography or consent of instructor.
Critical analysis of work by contemporary photo-based artists and investigation of relevant theoretical issues.
May be repeated to a maximum of 6 units with rotating topics in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## *475. Printmaking: Photo and Digital Processes (3)

Prerequisites: ART 130, 141, or 149, 181; six units from AH 111A, 111B, 111C.
Instruction in the photo printmaking processes for lithography, etching, and silkscreen using digital and analog techniques to explore photographic and non-photographic imagery.
(6 hrs. lab.) Letter grade only (A-F).
480./580. Printmaking: Monotype/Monoprint (3)

Prerequisites: ART 130, 181,184, 187; six units from AH 111A, 111B, 111C.

Instruction in all aspects of monotype and monoprint form of printmaking as expansive medium capable of diverse applications and linkages with other procedures and disciplines. Emphasis on extension and refinement of individual expression. Black and white and color.
(6 hrs. lab.) Letter grade only (A-F).
*481. Advanced Drawing (3)
Prerequisite: ART 381.
Advanced problems and concepts in drawing designed to explore modes of representation and issues pertaining to contemporary drawing.
(6 hrs. lab.) Letter grade only (A-F).
*482. Sequential Imagery (3)
Prerequisites: ART 223.
Concept of book or magazine (electronic or print) as art form. Image/word relationship within context of sequential aesthetics. Editorial and visual issues of pacing, continuity, and closure.
( 6 hrs . lab.) Not open for credit to students with credit in ART 382B. Letter grade only (A-F).

## *483. Advanced Life Painting (3)

Prerequisite: ART 383.
Continued study in painting from the human figure with emphasis on pictorial structure, color and individual expression.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
*484. Advanced Life Drawing (3)
Prerequisite: ART 384.
Continued study in drawing the human figure from observation with emphasis on structure, form and composition, as well as individual expression.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

## *486. Advanced New Media Design (3)

Prerequisites: ART 386 A or 386B or consent of instructor.
Advanced application/design within new media environments.
Emphasis on advanced knowledge of software, attention to concept/ aesthetics as it relates to interactive design. Hands-on /research based approach to exploration of major motion graphic, web-based and interactive software applications.

## *487. Advanced Painting (3)

Prerequisite: ART 387.
Continued study in studio painting, exploring advanced modes of pictorial structure with emphasis on individual expression.
(6 hrs. lab.) Letter grade only (A-F).
*489. Special Topics in Visual Art (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in the visual arts will be selected for intensive study.
May be repeated to a maximum of 12 units with different topics. Topics will be announced in the Schedule of Classes.

## 491A. Ceramics: Senior Project (1)

Prerequisite: ART 451A or 451B or consent of instructor.
Planning, preparation, completion, and photographic slide
documentation of a creative exhibition and written thesis as approved by faculty.
Should be taken in last semester before graduation. Required of all BFA ceramics majors. Letter grade only (A-F). May be repeated to a maximum of 2 units.

## 491B. 3-D Media-Senior Project (1)

Prerequisite: 3-D Media major or consent of instructor.
Organizing, completing, and photographing (35mm slides) a creative exhibition of their work. Exhibition culminates with written thesis with faculty approval.
Should be taken in the last semester before graduation. Required of all 3-D Fiber, Wood, Metal and Integrated Media majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units in the same semester.

## 491C. Photography - Senior Project (1) F,S

Planning, preparation, completion, and photographic slide documentation of a creative exhibition and written thesis as approved by faculty.
Should be taken in the last semester before graduation. Required of all Photography majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units.

## 491F. Sculpture Senior Project (1)

Prerequisites: Senior Sculpture major; consent of instructor.
Students will complete their work, organize an exhibition and write an Artist's Statement.
Required by all Sculpture majors. Should be taken in the final semester of a student's BFA program. Credit/No Credit grading only.

## 491G. Drawing and Painting: Senior Project (1)

Exhibition of a cohesive body of work evidencing advanced study in Drawing and Painting. Planning, preparation, completion and photographic slide documentation of creative exhibition. Written project report and artist statement as approved by faculty.
Should be taken in the last semester before graduation. Required of all Drawing and Painting majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units.

## 491P. Printmaking: Senior Project (1)

Planning, preparation, completion, and photographic slide documentation of a creative exhibition and a written expanded artist's statement as approved by faculty.
Should be taken in the last semester before graduation. Required of al Printmaking majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units.

## *492F. Concentrated Studies in Life Drawing (3)

Prerequisites/Corequisites: ART 384 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in life drawing.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).
*492G. Concentrated Studies in Abstract Painting (3) Prerequisites/Corequisites: ART 387 or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in abstract and nonobjective painting and drawing.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## 492Z./592Z. Concentrated Studies in Life Painting (3)

Prerequisites/Corequisites: ART 383 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in painting the human figure. A more open relationship in attitudes and processes of working from the figure in class and total self-direction on work done outside the class.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## *495. Field Studies in Art (1-6)

Independent work with an instructor of student's choice, usually outside area of specialization.
Department Chair or Undergraduate Advisor/Graduate Advisor approval, restricted to undergraduate and graduate art majors. (2-12 hrs. lab.) Letter grade only (A-F).

## *499A. Special Studies in Ceramics (3)

Prerequisite: Ceramics major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in ceramics.

May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. ( 6 hrs . lab.) Letter grade only (A-F).
*499B. Special Studies in Wood (3)
Prerequisite: ART 354B or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems using wood as the media.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)
*499D. Special Studies in Drawing (3)
Prerequisite: ART 381; Drawing and Painting Major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in drawing.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. ( 6 hrs . lab.)
*499F. Special Studies in Illustration (3)
Prerequisite: Illustration major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in illustration or biomedical art.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).
*499J. Special Studies in Metalsmithing and Jewelry (3)
Prerequisite: ART 458A or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in metalsmithing and jewelry.
Course fee may be required. May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## *499K. Special Studies in Painting (3)

Prerequisite: ART 387; Drawing and Painting Major or consent of instructor.

Opportunity for extensive work with faculty supervision on individual problems in painting.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. ( 6 hrs . lab.)
*499M. Special Studies in Life Sculpture (3)
Prerequisite: Sculpture major or consent of instructor.
Opportunity for extensive work with faculty suprvision on individual problems in sculpture.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## *499N. Special Studies in Fiber (3)

Prerequisite: 3-D Media major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in textile design.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).
*4990. Special Studies in Studio Sculpture (3)
Prerequisites: Sculpture major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in sculpture.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. (6 hours lab). Letter grade only (A-F).

## *499P. Special Studies in Art Education (3)

Prerequisite: Art Education major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in art education.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. ( 6 hrs . lab.) Letter grade only (A-F).

## *499R. Special Studies in Printmaking (3)

Prerequisite: Printmaking major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in printmaking.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## *499S. Special Studies in Visual Communications Design (3)

Prerequisite: Visual Communications major or consent of instructor.
Opportunity for extensive contract work with faculty supervision on problems in visual communications design.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. ( 6 hrs. lab.) Letter grade only (A-F).
*499V. Special Studies in Art Photography (3)
Prerequisites: ART 444 and Photography Major, or consent of instructor.
Opportunity for extensive work, with faculty supervision, on individual problems in photography as an art form.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. ( 6 hrs . lab.) Letter grade only (A-F).

## GRADUATE LEVEL

## 506A./406A. Digital Imagery for the Arts (3)

Prerequisites: ART 149, 340, or consent of instructor.
Examination of digital imaging through Adobe Photoshop software. Emphasis on relationship of digital imaging to photography. Exercises sharpen skills and reveal new thinking strategies necessary for fluency in digital media. Concentration on theory of media and representation as well as individual projects.
(6 hrs. lab.) Letter grade only (A-F).

## 506B./406B. Advanced Digital Imagery for the Arts (3)

Prerequisites: ART 406A, 444, or consent of instructor.
Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects.
(6 hrs. lab.) Letter grade only (A-F).

## 509A-B. Research in Art Education (2-2)

Prerequisite. Art Education major or consent of instructor.
Advanced individual graduate problems in art education with projects related to specific learning situations.
Letter grade only (A-F).

## 512./412. Aesthetic Theories and Art Education (3)

Past and current philosophical writings of aestheticians, critics, artists, and art educators will be investigated with theoretical, practical, and cross-cultural implications for the arts educator. Letter grade only (A-F).

## 514./414. Documentary Photography (3)

Prerequisites: ART 340, 444, or consent of instructor.
History, theory, practice, and production of still documentary photographic works with emphasis on the photograph as an instrument for social influence and change.
(6 hrs. lab.) Letter grade only (A-F).

## 536A./436A. Video Art (3)

Historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media.
Course fee may be required. ( 6 hrs. lab) Letter grade only (A-F)
536B./436B. Video Art (3)
Prerequisites: ART 436A or 536A.
Continuation of ART 436A. Advancement in historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
540./440. Art in Public Places: Theory and Practice (3)

Prerequisites: ART 130, ART 131, and 6 units of Art History selected from AH 111A, 111B, 111C, or consent of instructor.
Exploration of various approaches to production of art in public places; the history and development explored in preparation for creation of artist-initiated and commissioned temporary and permanent art works for public sphere. Viewpoints influencing evaluation, production, selection, and commissioning of temporary and permanent art projects in public spaces. Strategies explored for conceptual development of projects will incorporate both individual and team approaches.
(6 Hrs. Lab.) Letter grade only (A-F).

## 544./444. Fine Print Photography (3)

Prerequisite: ART 340.
Presentation of advanced printing techniques and mastery of darkroom skills. Includes exposure, development, processing chemistry, film and paper types, toners and archival processing (lab fee required). ( 6 hrs. lab.) Letter grade only (A-F).

## 545A,B. Museum-Gallery Practices $(3,3)$

Prerequisites: AH 431 or consent of instructor.
Pre-professional training in museum-gallery techniques:
administration, exhibition, budget planning, curatorial problems, public relations, insurance, packing and shipping. The University Gallery will be the lab for practical experience; students will assist in conceiving and realizing exhibitions.
Letter grade only (A-F).

## 547./447. Photo Studio Specialties (3)

Prerequisite: ART 340.
Designed to give exploration of camera and laboratory techniques as applied to studio work in photography. Related photo assignments of studio and location problems will be given
(laboratory included). (6 hrs. lab.) Letter grade only (A-F).

## 549./449. Experimental/Alternative Practices in

 Photography (3)Prerequisite: ART 340.
Experimental solutions to conceptual problems. Emphasis on Alternative Processes, non-traditional photographic processes, exploration of new ideas and procedures for the development of art work and meaning significant to each individual student.
(6 hrs. lab.) Letter grade only (A-F).

## 550. Intermedia (3)

Exploration of media and strategies new to sculpture vocabulary such as performance, installation, video electronics media, other timebased media and mass media in conjunction with other sculptural techniques. Insight into art theory and strategies pertaining to contemporary art practices.
May be repeated to a maximum of 9 units in different semesters. Letter grade only (A-F).

## 551A. Advanced Ceramics - Graduate (3)

Prerequisite: ART 451B.
Opportunity for beginning graduate students to do research employing various ceramics materials, processes and visual solutions in preparation for a more narrow and concentrated study.
(6 hrs. lab.) Letter grade only (A-F).

## 551B. Advanced Ceramics - Graduate (3)

Prerequisite: ART 551A.
Selection of a specific area of concentration in ceramics, limiting the materials and processes to develop a project which will reflect a predetermined statement.
(6 hrs. lab.) Letter grade only (A-F).
554A,B. Wood - Graduate $(3,3)$
Prerequisites: ART 454B or consent of instructor.
Development of individual problems and expression in the creation of wooden art/craft structures. Emphasis on exploring personal expression through focused study of chosen techniques and the discussion of related wood issues and aesthetics.
(6 hrs. lab) Letter grade only (A-F).
558A. Metalsmithing, Jewelry and Enameling (3)
Prerequisite: 3-D Media major or consent of instructor.
Individual graduate level studio projects involving investigation of materials, processes and visual solutions in preparation for more concentrated study in metalsmithing, jewelry, enameling, or architectural metalwork and blacksmithing.
Course fee may required. May be repeated to a maximum of 6 units. (6 hrs. lab.) Letter grade only (A-F).

## 558B. Metalsmithing, Jewelry and Enameling (3)

Prerequisite: 3-D Media major or consent of instructor.
Selection of a specific area of concentration in metalsmithing and jewelry, enameling, or architectural metalwork and blacksmithing; focus on creative objectives based on a projected theme.
Course fee may be required. May be repeated to a maximum of 6 units. ( 6 hrs. lab.) Letter grade only (A-F).

564A,B. Advanced Wood Studio - Graduate $(3,3)$
Prerequisites: ART 354B or consent of instructor.
Development of individual skill, technique, and concept through the exploration of a unique and personal language in wood. Creation of body of work supported by research projects on related work and concepts in the field.
(6 hrs. lab) Letter grade only (A-F).

## 572./472. Storyboarding for Film and Television (3)

Prerequisites: ART 130, 181, 184, 271 or consent of instructor. Introduction to storyboarding for television commercials and feature films. Focuses on sequential structure of film including pacing and continuity as related to storytelling in medium of motion pictures. Includes discussion of camera movement, uses of storyboards, emphasis on drawing and skills needed to visually communicate ideas for entertainment industry.
(6 hrs. lab.) \Letter grade only (A-F).

## 573./473. Seminar in Photo-Based Art (3)

Prerequisite: Advanced standing in Photography or consent of instructor.
Critical analysis of work by contemporary photo-based artists and investigation of relevant theoretical issues.
May be repeated to a maximum of 6 units with different artists in different semesters. Letter grade only (A-F).
575./475. Printmaking: Photo and Digital Processes (3)

Prerequisites: ART 130, 141, or 149, 181; six units from AH 111A, 111B, 111C.
Instruction in the photo printmaking processes for lithography, etching, and silkscreen using digital and analog techniques to explore photographic and non-photographic imagery.
(6 hrs. lab.) Letter grade only (A-F).
580./480. Printmaking: Monotype/Monoprint (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 111A, 111B, 111C.
Instruction in all the aspects of the monotype and monoprint form of printmaking as an expansive medium capable of diverse applications and linkages with other procedures and disciplines. Emphasis will be on the extension and refinement of individual expression. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

## 583. Advanced Life Graduate Painting (3)

An intensive studio course in painting from the model for graduate students.
(6 hrs. lab.) Letter grade only (A-F).
590. Special Problems in Studio Art (1-3)

Prerequisites: Consent of instructor.
Special topics of current interest in studio art will be selected for intensive study.
May be repeated to a maximum of 12 units with different topics. Topics will be announced in the Schedule of Classes. (2-9 hrs. lab.) Course fee may be required. Letter grade only (A-F).
A. Visiting Artists

## 591. Graduate Interdisciplinary Critique (3)

Critique and discussion forum for graduate students in all areas of studio practice, and from all Art Department programs. Emphasis on development of critical discussion and writing skills. Group meetings and individual meetings with instructor.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

592Z./492Z. Graduate Concentrated Studies in Life Painting (3)
Opportunity for extensive work with faculty supervision on individual problems in painting the human figure. A more open relationship in attitudes and processes of working from the figure in class and total self-direction on work done outside class.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

## 599. Studio Problems In Art (3)

Prerequisites: Consent of instructor.
Advanced individual graduate projects, with faculty supervision, in an area of art specialization.
May be repeated to a maximum of 12 units with different topics in the same semester. ( 6 hrs. lab). Letter grade only (A-F). Area will be designated by letter at time of registration:

## A. Ceramics

B. Wood
D. Drawing
F. Illustration
J. Metal (course fee required)
K. Painting
L. Life Drawing (course fee required)
M. Life Sculpture (course fee required)
N. Fiber
O. Sculpture
R. Printmaking
S. Visual Communication Design
V. Photography

## 601A-B. Seminar in Art Education (3-3)

Prerequisite: Graduate student in Art Education or consent of instructor.
Special studies, research and evaluation of the role of the art teacher.
ART 601A is required for the M.A. in Art Education; ART 601B may be required by the student's M.A. committee. Letter grade only (AF).

## 649. Seminar in Drawing and Painting (3)

Advanced critical dialog related to contemporary drawing and painting with faculty peers and visiting artists. Additional activities include research, readings and presentations pertaining to contemporary professional practice within the changing art world.
Limit to 3 units in one semester. May be repeated to a maximum of 12 units in different semsters. Letter grade only (A-F).

## 651. Seminar in Ceramic Art (3)

Prerequisite: Graduate student in Ceramics or consent of instructor.
Critical analysis of work of historical and contemporary ceramic artists; the changing role of ceramic art as it becomes part of the contemporary art mainstream.
May be repeated to a maximum of 12 units with different artists in different semester. Letter grade only (A-F).

## 690A. Graduate Seminar in Studio Art (Critical Studies)

 (3)Prerequisite: Graduate M.F.A. student or consent of instructor.
Selected reading and writing concerning topics relevant to student's specific disciplines in the visual arts with an opportunity for interdisciplinary discussion.
Letter grade only (A-F).

## 690B. Graduate Seminar in Studio Art (Professional Practices) (3)

Prerequisite: Graduate M.F.A. student or consent of instructor.
Professional preparation for studio artists stressing practical concerns as well as current trends in art practices, theory and criticism.
Letter grade only (A-F).

690M. 3-D Graduate Seminar (3)
Graduate seminar for 3D students. Examination of media, concerns, strategies relevant to the spectrum of contemporary three-dimensional art production. Includes critique of student work, readings, discussion and written assignments.
May be repeated to a maximum of 3 units in one semester and 9 units in different semesters. Letter grade only (A-F).

## 692. Project Exhibition (3)

Prerequisite: Advancement to Candidacy and a registration in ART 698 or 699. Open only to M.A. and M.F.A. candidates with Project Statement approval, consent of their graduate committee and an assigned exhibition date.
Planning, preparation, and installation of a public exhibition of creative work done for ART 698 or 699.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

## 693. Teaching Internship (3)

Opportunity to work with full-time Art faculty mentor on course preparation and instruction. Required for eligibility for Graduate Teaching Associate positions.
Restricted to graduate art majors. May be repeated to a maximum 6 units. (6 hrs. lab.) Letter grade only (A-F).

## 694. Directed Studies Studio (1-3)

Independent studies in creative studio. Department Chair or Graduate Advisor approval, restricted to graduate art majors.
(2-6 hrs. lab.) Letter grade only (A-F).
695. Field Problems in Art (1-6)

Opportunity to study artistic monuments, objects, theories, techniques or literature at appropriate off campus locations.
Department Chair or Graduate Advisor approval, restricted to graduate art majors. (2-12 hrs. lab.) Letter grade only (A-F).

## 697. Directed Studies (1-3)

Independent studies in technical and/or historical aspects of art.
Department Chair or Graduate Advisor approval, restricted to graduate art majors. (2-6 hrs. lab.) Letter grade only (A-F).

## 698A. Thesis or Project (1-6)

Prerequisite: Advancement to Candidacy and an approved Thesis or Project Statement.
Execution and completion of an approved thesis, or project, project report, documentation, orals and comprehensive exam.
Open only to Art Education students. Required of all candidates for the MA in Art, specialization in Art Education. May be repeated to a maximum of 3 units in different semesters to a total of 6 units. Letter grade only (A-F).

## 698B. Project (1-6)

Prerequisite: Advancement to Candidacy and an approved Project Statement.
Execution and completion of an approved Studio Project and Project Report for the MA degree.
Open only to Studio Art students. Required, in conjunction with ART 692, Project Exhibition, of all candidates for the MA in Art, specialization in Studio Art. Letter grade only (A-F).

## 699. Project (1-6)

Prerequisite: Advancement to Candidacy and an approved Project Statement.
Execution and completion of a Studio Project and Project Report for the M.F.A. degree.
Open only to Studio Art students. Required, in conjunction with ART 692, Project Exhibition, of all candidates for the MFA in Art. Letter grade only (A-F).

## Art History Courses (AH)

## LOWER DIVISION

## 111A. Foundation Art History I (3)

Prerequisites: A General Education Foundation class.
Chronological survey of art as an integral part of Western Culture from pre-History through the Middle Ages.
Not open for credit to students with credit in AH 115A. (CAN ART 2)

## 111B. Foundation Art History II (3)

Prerequisite: A General Education Foundation class.
Chronological survey of art as an integral part of Western Culture from Proto-Renaissance to contemporary.
Not open for credit to students with credit in AH 115C. (CAN ART 4)
111C. Foundation Art History III (3)
Prerequisites: AH 111A or AH 111B and a General Education Foundation class.
Basic theoretical considerations about art and its relation to society in both Western and non-Western cultures.
Not open for credit to students with credit in AH 115A.
113A. Survey Asian Art: Early Sacred Cultures (3)
Prerequisites or corequisite: A General Education Foundation class.
Survey of art as an integral part of Asian culture: India and SE Asia, China, and Japan from earliest times to c. 1000.
Not open for credit to students with credit in ART 113A.
113B. Survey Asian Art:Later Traditions (3)
Prerequisites or corequisite: A General Education Foundation class.
Survey of art as an integral part of Asian culture: India and SE Asia, China, and Japan from earliest times from c. 1000 to 1900.
Not open for credit to students with credit in ART 113B.

## UPPER DIVISION

## *307. Historiography in Art (3)

Prerequisites: Graduate student in Art History or undergraduate major with senior status.
History of art history as intellectual discipline. Reading- and writingintensive seminar designed specifically for undergraduate art history majors in final year of study and for graduate students in M.A. in Art History program.
Not open for credit to students with credit in ART 307. Letter grade only (A-F).

## *308. Western Art Theory and Criticism to the MidNineteenth Century (3)

Prerequisites: For art and art history majors; and 111A, 111B, or consent of instructor.
A text-based examination of western art theory and criticism up to the mid-nineteenth century.
Letter grade only (A-F).

## *309. Western Art Theory and Criticism Mid-Nineteenth to

 Mid-Twentieth Century (3)Prerequisites: For art and art history majors; and AH 111A, 111B, or consent of instructor.
A text-based examination of western art theory and criticism from the mid-nineteenth to mid-twentieth centuries.
Letter grade only (A-F).

## *310. Western Art Theory and Criticism Mid-Twentieth Century to Present (3)

Prerequisite(s): AH 111A, 111B.
A text-based examination of western art theory and criticism from the mid-twentieth century to the present.
Letter grade only (A-F).

## *364. History of Ceramics 1900 to Present (3)

Developed in order to survey the development of modern and contemporary ceramic art in the United States from 1900 to the most current. Through slide lectures offered by faculty, students and guest scholars modern \& contemporary American ceramic art will be studied within the context of contemporary art history. This will require the alignment and analysis of seminal or significant ceramic works of the $20^{\text {th }}$ century with modern and postmodern movements in art in order to examine the common ground and the differences. Letter grade only (A-F).

## *365. History of Prints and Drawings (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Historical survey of prints and drawings, with emphasis on technical and stylistic developments and on the role played by these media in relation to other arts through the 20th century.
Not open for credit to students with credit in ART 365. Letter grade only (A-F).

## 401./501. American Art to 1900 (3)

Prerequisites: AH 111A, 111B or consent of instructor.
Survey of American painting, sculpture, and photography from the time of European settlement to roughly 1900 with a special focus on cultural, political, and historical contexts. Discussion of topics such as the construction of an American identity, the ideaology of Manifest Destiny, and the trauma of the Civil War. Combines slide lecture with discussion of primary and secondary readings.
Letter grade only (A-F).

## *402. The Rise of Landscape Painting (3)

Prerequisites: AH 111A, 111B or consent of instructor.
Examination of emerence and transformation of landscape painting in Europe and America between 1750 and 1850. We will examine national schools while exploring important contextual factors including the traditional hierarchy of genres, the development of the concepts of he picturesque and sublime in the $18^{\text {th }}$ century aesthetics, the emergence of the greater emotional expression and ecological awareness in Romanticism, and the ideological role of spirituality and so-called manifest destiny of the $19^{\text {th }}$ century views of the American West.
Letter grade only (A-F).
408./508. Early Christian and Byzantine Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Architecture, mosaics and sculpture of Rome, Ravenna and
Constantinople from the decline of the Roman Empire to the end of the Byzantine era.
Not open for credit to students with credit in ART 408 or 598B. Letter grade only (A-F).

## 409./509. Romanesque Art (3)

Prerequisites: AH 111A, 111C, or consent of instructor.
Arts of Northern Europe from Merovingian through the Romanesque periods.
Not open for credit to students with credit in ART 409 or 598C. Letter grade only (A-F).

## 410./510. Gothic Art (3)

Architecture, sculpture, and painting in western Europe from the $12^{\text {th }}$ through the $14^{\text {th }}$ centuries, with special attention to the construction and decoration of the great cathedrals, and to the development of new approaches to style and content in the figural art of the $14^{\text {th }}$ century Italy.
Not open for credit to students with credit in ART 410 or 598D. Letter grade only (A-F).

## 411./511. History and Criticism of Photography (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
History of photography from its origins to contemporary developments in the twentieth century. Critical and philosophical approaches to the photographic medium.
Not open for credit to students with credit in ART 411 or 511. Letter grade only (A-F).

## 416./516. Greek Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Survey traces Greek Art from its first beginnings in Aegean period and survey its development on through the late Hellenistic period. Key monuments of architecture, sculpture, painting, vase-painting, and so-called minor arts discussed against background of contemporary theories, criticism, and history. Of particular concern are techniques and materials of various arts.
Not open for credit to students with credit in ART 416 or 598E. Letter grade only (A-F).

## 417./517. Roman Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Overview of the arts of Italy before the Romans including both the indigenous art of the Italic peoples as well as the better known art of the Etruscans. The survey of Roman Art itself will begin with the early Republic and end with the Age of Constantine. The major art forms of architecture, painting, sculpture and the so-called minor arts will be discussed. Contemporary criticism, theory, and history will be part of the sub-text of the course.
Not open for credit to students with credit in ART 417 or 598L. Letter grade only (A-F).

## 423./523. Early Renaissance Art in Italy (3)

Painting, sculpture, and architecture in Italy during the $15^{\text {th }}$ century. The course examines stylistic and technical aspects of the works, along with the interaction of cultural, social, and religious developments with the visual arts. Special attention paid to the revival of classicism, and the influence of private patrons such as the Medici family in Florence.
Not open for credit to students with credit in ART 423 or 598F. Letter grade only (A-F).

## 424./524. High Renaissance Art in Italy (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Painting, sculpture, and architecture in Italy from the 16th century especially in Florence, Venice, and Rome. Provides an historical, cultural, religious, and theoretical framework within which the meaning and function of the works can be better understood. Works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists) will receive special attention.
Not open for credit to students with credit in ART 424 or 598G. Letter grade only (A-F).

## 425./525. Northern Renaissance Painting (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Covers artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. Provides historical, cultural, and religious framework within which style, meaning, and function of works can be better understood. Special attention to issues such as iconography, and the changing role of the artist in society.
Not open for credit to students with credit in ART 425 or 598 H . Letter grade only (A-F).

## 426./526. Baroque Art in Spain, the Netherlands, and

 England (3)Prerequisites: AH 111A, 111B, or consent of instructor.
Examines the closely intertwined political and artistic situations in Netherlands (Flanders and Holland), England and Spain during 17th and early 18th centuries. Emphasis on relationship between Rubens and Velasquez, and contrast between Rubens and Rembrandt; also Flemish influence in England, due especially to Anthony van Dyck.
Not open for credit to students with credit in ART 426 or 598J. Letter grade only (A-F).
427./527. Baroque Art in Italy, France, and Germany (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Explores birth of Baroque in Rome, and role of CounterReformation in shaping artistic genres in Italy and France in early 17th century. Covers influence of Versailles court of "Sun King," Louis XIV, in late 17th and early 18th centuries, especially in independent Teutonic states.
Not open for credit to students with credit in ART 427 or 598 K . Letter grade only (A-F).

## 430./530. Museum Practices (3)

Prerequisites: AH 431 or by consent of student advisor and instructor.
Comprehensive introduction to the administrative, strategic and financial aspects of exhibiting art and maintaining art collections in museums.
Designed for students seeking Museum Studies Certificate and those pursuing MA with an emphasis in Museum Studies. Letter grade only (A-F). Not open to students with credit for AH 435B/535B.

## 431./531. History of Museum and Exhibitions (3) C 5

Prerequisites: AH 111A, 111B or by consent of student advisor and instructor.
Open to students interested in history of art museums and role museums play in manifesting cultural values, and in impact exhibitions of art have had on development of arts and controversies they have stirred.
Class is required of students seeking Museum Studies Certificate and those pursuing MA with emphasis in Museum Studies. Not open for credit to students with credit in ART 435; AH 435, 435A, or 535A. Letter grade only (A-F).
436./536. Neo-Classicism to Romanticism, 1789-1850 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Neo-Classicism, Realism, Romanticism, photography and the academic tradition in art and culture of Europe from 1789-1850.
Not open for credit to students with credit in ART 436 or 598 M . Letter grade only (A-F).
437./537. Impressionism to Post-Impressionism,18501900 (3)
Prerequisites: AH 111A, 111B, or consent of instructor.
Analysis of the development of Impressionism and PostImpressionism in France from 1850 to 1900.
Not open for credit to students with credit in ART 437 or 598 N . Letter grade only (A-F).

## 438./538. Twentieth-Century Art to 1945 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism.
Not open for credit to students with credit in ART 438 or 598P. Letter grade only (A-F).
439./539. Twentieth-Century Art from 1945 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art.
Not open for credit to students with credit in ART 439 or 598Q.
Letter grade only (A-F).
*440. Art and Society (3)
Considers nature of art in Western culture from several disciplinary perspectives including art theory, social and political theory, history, philosophy and economics. Seeks to demonstrate that art is a construct based on human intellect and belief.
Not open for credit to students with credit in ART 440. Letter grade only (A-F).
455./555. Traditional Art of Africa: A Thematic Approach (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Exploration from a Western perspective of the conceptual, expressive, and aesthetic aspects of traditional African art as related to its cultural context and to Western concepts of art. Focus on West Africa.
Not open for credit to students with credit in ART 455 or 598R. Letter grade only (A-F).
456./556. American Indian Art: Western Perspectives (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Exploration from a Western perspective of the historically various and changing frames of reference surrounding perception, interpretation, and consideration of Native American art through focus on selected traditions.
Not open for credit to students with credit in ART 456 or 598 S. Letter grade only (A-F).

## 457./557. Pre-Columbian Art (3)

Prerequisites: AH 111A, AH 111B, or consent of instructor.
A survey of art and architecture in Mesoamerica and the Andean region of South America from about 1000BC to the Spanish conquest. Special attention will be focused on the social, political and economic contexts of objects and architecture from this period, as well as on the research methods and theoretical assumptions of scholars investigating this field.
Letter grade only (A-F).

## 458./558. Modern Latin American Art (3)

Prerequisites: AH 111B or consent of instructor.
Investigation of developments in visual culture in Latin America from the late- $18^{\text {th }}$ century to the mid- $20^{\text {th }}$ century, with special emphasis on artists in Argentina, Brazil, Colombia, Mexico, Uruguay, and Venezuela.
Letter grade only (A-F).

## 459./559. Contemporary Latin American Art (3)

Prerequisites: AH 111B or consent of instructor.
Investigation of developments in visual culture in Latin America from the mid-20 ${ }^{\text {th }}$ century to the present, with special emphasis on artists in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, and Venezuela, as well as Latino/Latina artists.
Letter grade only (A-F).

## 465./565. Ancient Art of the Near East (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Near Eastern, Egyptian and Aegean art.
Not open for credit to students with credit in ART 465 or 598U. Letter grade only (A-F).

## 466./566. Buddhist Art of India and S.E. Asia (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Formation and development of Buddhist art in India and subsequent metamorphoses in Cambodia, Thailand and Indonesia examined.
Not open for credit to students with credit in ART 466 or 598 V . Letter grade only (A-F).

## 467./567. Hindu and Islamic Art of India (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Formation and development of Hindu art in India and the genesis, as well as transformation, of Islamic art of India compared to panIslamic characteristics will be examined.
Not open for credit to students with credit in ART 467 or 598 W . Letter grade only (A-F).

## 468./568. Early Chinese Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Formation and development of Chinese art from third millennium to $10^{\text {th }}$ century A.D.
Not open for credit to students with credit in ART 468 or 598X. Letter grade only (A-F).

## 469./569. Later Chinese Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Development of Chinese art from the $11^{\text {th }}$ century A.D. through the culmination of the tradition and its transformation in the 2oth century will be explored.
Not open for credit to students with credit in ART 469 or 598 Y . Letter grade only (A-F).
470A./570A. Japanese Buddhist Art to 1500 (3)
Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, consent of instructor.
Survey of sacred architecture, sculpture, painting, gardens and decorative art from neolithic culture through Zen Buddhism, reading images in regard to religious, political and social values.
Not open for credit to students with credit in AH 470. Letter grade only (A-F).
470B./570B. Japanese Art 1500-1868 (3)
Prerequisite: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Analysis of secular painting, architecture, ceramics and garden design in the Momoyama and Edo periods, linking the wide variety of subjects and styles to the competing values of samurai, priest, aristocrat or merchant class patrons.
Not open for credit to students with credit in AH 470. Letter grade only (A-F).

## 471A./571A. Modern Japanese Graphic Art (3)

Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Examination of painting, prints, photography and graphic design in regard to the issues of individual and national identity in an era when being modern was often linked to being Western. We also consider manga in regard to earlier modern adaptations of traditional design.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

## 471B./571B. Modern Japanese Plastic Art (3)

Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Investigation of architecture, gardens, sculpture and ceramics in light of debates over internationalism or nationalism, modernity or tradition. The political and economic implications of design choices will be highlighted.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

## 495. Independent Study In Art History (1-6)

Independent, in-depth research projects to be conducted by students under the supervision of a faculty member.
As per university policy on independent studies courses, each student enrolled in this course must have an agreement, or "contract" on file in department office. Agreement is to be made between student and instructor at beginning of course, and must include: description of work to be accomplished, specific information on tasks required; nature of final report, and basis for determining final grade. Agreement must be signed by both instructor and student.
Letter grade only (A-F).

## 496. Special Studies in Art History (3)

Prerequisite: AH 307 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in art history.
May be repeated to a maximum of 9 units. Not open for credit to students with credit in ART 496. Letter grade only (A-F).

## 497./597. Seminar in Art History (3)

Prerequisite: AH 307 or consent of instructor.
Directed individual research and group discussion concerning a topic in art history.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. Not open for credit to students with credit in ART 497 or 611 beyond combined maximum units. Letter grade only (A-F).

## 498. Special Topics in Art History (3)

Prerequisite: AH 307 or consent of instructor.
Variable topics from selected areas of Art History. Content may vary each semester.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F).

## 499Q. Special Studies in Museum Studies (3)

Prerequisites: AH 431 or consent of instructor.
Opportunity for extensive individual work with faculty supervision on problems in museum studies, including utilizing the resources of The Center for Southern California Studies in the Visual Arts.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. ( 6 hrs. lab.) Not open for credit to students with credit in ART 499Q. Letter grade only (A-F).

## GRADUATE LEVEL

## 501./401. American Art to 1900 (3)

Prerequisites: AH 111A, 111B or consent of instructor.
Survey of American painting, sculpture, and photography from the time of European settlement to roughly 1900 with a special focus on cultural, political, and historical contexts. Discussion of topics such as the construction of an American identity, the ideaology of Manifest Destiny, and the trauma of the Civil War. Combines slide lecture with discussion of primary and secondary readings.
Letter grade only (A-F).

## 502. The Rise of Landscape Painting (3)

Prerequisite(s); AH 111A, 111B or consent of instructor.
Examination of the emergence and transformation of landscape painting in Europe and America between 1750 and 1850. We will examine national schools while exploring important contextual factors including the traditional hierarchy of genres, the development of the concepts of he picturesque and sublime in the $18^{\text {th }}$ century aesthetics, the emergence of the greater emotional expression and ecological awareness in Romanticism, and the ideological role of spirituality and so-called manifest destiny of the $19^{\text {th }}$ century views of the American West.
Letter grade only (A-F).
508./408. Early Christian and Byzantine Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Architecture, mosaics and sculpture of Rome, Ravenna and Constantinople from the decline of the Roman Empire to the end of the Byzantine era.
Not open for credit to students with credit in ART 408 or 598B. Letter grade only (A-F).

## 509./409. Romanesque Art (3)

Prerequisites: AH 111A, 111C, or consent of instructor.
Arts of Northern Europe from Merovingian through the Romanesque periods.
Not open for credit to students with credit in ART 409 or 598C. Letter grade only (A-F).

## 510./410. Gothic Art (3)

Architecture, sculpture, and painting in western Europe from the $12^{\text {th }}$ through the $14^{\text {th }}$ centuries, with special attention to the construction and decoration of the great cathedrals, and to the development of new approaches to style and content in the figural art of the $14^{\text {th }}$ century Italy.
Not open for credit to students with credit in ART 410 or 598D. Letter grade only (A-F).

## 511./411. History and Criticism of Photography (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
History of photography from its origins to contemporary developments in the twentieth century. Critical and philosophical approaches to the photographic medium.
Not open for credit to students with credit in ART 411 or 511. Letter grade only (A-F).

## 516./416. Greek Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
This survey will trace Greek Art from its first beginnings in the Aegean period and survey its development on through the late Hellenistic period. The key monuments of architecture, sculpture, painting, vase-painting, and the so-called minor arts will be discussed against the background of contemporary theories, criticism, and history. Of particular concern are the techniques and materials of the various arts.
Not open for credit to students with credit in ART 416 or 598E. Letter grade only (A-F).

## 517./417. Roman Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Overview of the arts of Italy before the Romans including both the indigenous art of the Italic peoples as well as the better known art of the Etruscans. The survey of Roman Art itself will begin with the early Republic and end with the Age of Constantine. The major art forms of architecture, painting, sculpture and the so-called minor arts will be discussed. Contemporary criticism, theory, and history will be part of the sub-text of the course.
Not open for credit to students with credit in ART 417 or 598L. Letter grade only (A-F).

## 523./423. Early Renaissance Art in Italy (3)

Painting, sculpture, and architecture in Italy during the $15^{\text {th }}$ century. The course examines stylistic and technical aspects of the works, along with the interaction of cultural, social, and religious developments with the visual arts. Special attention paid to the revival of classicism, and the influence of private patrons such as the Medici family in Florence.
Not open for credit to students with credit in ART 423 or 598F. Letter grade only (A-F).

## 524./424. High Renaissance Art in Italy (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Painting, sculpture, and architecture in Italy from the 16th century especially in Florence, Venice, and Rome. Provides an historical, cultural, religious, and theoretical framework within which the meaning and function of the works can be better understood. Works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists) will receive special attention. Not open for credit to students with credit in ART 424 or 598 G. Letter grade only (A-F).

## 525./425. Northern Renaissance Painting (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Covers artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. The course provides an historical, cultural, and religious framework within which the style, meaning, and function of the works can be better understood. Special attention to issues such as iconography, and the changing role of the artist in society.
Not open for credit to students with credit in ART 425 or 598 H .
Letter grade only (A-F).
526./426. Baroque Art in Spain, the Netherlands, and England (3)
Prerequisites: AH 111A, 111B, or consent of instructor.
Examines the closely intertwined political and artistic situations in the Netherlands (Flanders and Holland), England and Spain during the 17th and early 18th centuries. Emphasis on the relationship between Rubens and Velasquez, and the contrast between Rubens and Rembrandt; also Flemish influence in England, due especially to Anthony van Dyck.
Not open for credit to students with credit in ART 426 or 598J. Letter grade only (A-F).
527./427. Baroque Art in Italy, France, and Germany (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Explores the birth of the Baroque in Rome, and the role of the Counter-Reformation in shaping artistic genres in Italy and France in the early 17 th century. Also covers the influence of the Versailles court of the "Sun King," Louis XIV, in the late 17th and early 18th centuries, especially in the independent Teutonic states.
Not open for credit to students with credit in ART 427 or 598 K . Letter grade only (A-F).

## 530./430. Museum Practices (3)

Prerequisites: AH 431 or by consent of student advisor and instructor.
Comprehensive introduction to the administrative, strategic and financial aspects of exhibiting art and maintaining art collections in museums. Designed for students seeking Museum Studies Certificate and those pursuing MA with an emphasis in Museum Studies.
Letter grade only (A-F). Not open for credit to students with credit in AH 435B/535B.

## 531./431. History of Museum and Exhibitions (3)

Prerequisites: AH 111A, 111B or by consent of student advisor and instructor.
Open to students interested in history of art museums and role museums play in manifesting cultural values, and in impact exhibitions of art have had on development of arts and controversies they have stirred.
Class is required of students seeking Museum Studies Certificate and those pursuing MA with emphasis in Museum Studies. Not open for credit to students with credit in ART 435; AH 435, 435A, or 535A. Letter grade only (A-F).
536./436. Neo-Classicism to Romanticism, 1789-1850 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Neo-Classicism, Realism, Romanticism,
photography and the academic tradition in art and culture of Europe from 1789-1850.
Not open for credit to students with credit in ART 436 or 598 M . Letter grade only (A-F).

## 537./437. Impressionism to Post-Impressionism, 18501900 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Analysis of the development of Impressionism and Post-
Impressionism in France from 1850 to 1900.
Not open for credit to students with credit in ART 437 or 598 N . Letter grade only (A-F).

## 538./438. Twentieth Century Art to 1945 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism.
Not open for credit to students with credit in ART 438 or 598P. Letter grade only (A-F).
539./439. Twentieth Century Art from1945 (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Examination of Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art. Not open for credit to students with credit in ART 439 or 598Q. Letter grade only (A-F).
542. Internship in Museum Studies (3)

Prerequisites: AH 431 or consent of instructor.
Student internship experience in selected museums, college and community art centers appropriate to the student's particular academic interest. Opportunity to work under supervision of museum professionals in the field to expand student understanding of the complexities, discipline and challenges in the profession.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. ( 6 hrs. lab.) Not open for credit to students with credit in ART 542. Letter grade only (A-F).
555./455. Traditional Art of Africa: A Thematic Approach (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Exploration from a Western perspective of the conceptual, expressive, and aesthetic aspects of traditional African art as related to its cultural context and to Western concepts of art. Focus on West Africa.
Not open for credit to students with credit in ART 455 or 598R. Letter grade only (A-F).
556./456. American Indian Art: Western Perspectives (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Exploration from a Western perspective of the historically various and changing frames of reference surrounding perception, interpretation, and consideration of Native American art through focus on selected traditions.
Not open for credit to students with credit in ART 456 or 598 S . Letter grade only (A-F).

## 557./457. Pre-Columbian Art (3)

Prerequisites: AH 111A, 111B or consent of instructor.
A survey of art and architecture in Mesoamerica and the Andean region of South America from about 1000BC to the Spanish conquest. Special attention will be focused on the social, political and economic contexts of objects and architecture from this period, as well as on the research methods and theoretical assumptions of scholars investigating this field.
Letter grade only (A-F).

## 558./458. Modern Latin American Art (3)

Prerequisites: AH 111B or consent of instructor.
An investigation of developments in visual culture in Latin America from the late- $18^{\text {th }}$ century to the mid- $20^{\text {th }}$ century, with special emphasis on artists in Argentina, Brazil, Colombia, Mexico, Uruguay, and Venezuela.
Letter grade only (A-F).

## 559./459. Contemporary Latin American Art (3)

Prerequisites: AH 111B or consent of instructor.
An investigation of developments in visual culture in Latin America from the mid-20 ${ }^{\text {th }}$ century to the present, with special emphasis on artists in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, and Venezuela, as well as Latino/Latina artists.
Letter grade only (A-F).

## 565./465. Ancient Art of the Near East (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Prehistoric, Near Eastern, Egyptian and Aegean art.
Not open for credit to students with credit in ART 465 or 598 U . Letter grade only (A-F).

## 566./466. Buddhist Art of India and S.E. Asia (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
The formation and development of Buddhist art in India and its subsequent metamorphoses in Cambodia, Thailand and Indonesia will be examined.
Not open for credit to students with credit in ART 466 or 598 V . Letter grade only (A-F).

## 567./467. Hindu and Islamic Art of India (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
The formation and development of Hindu art in India and the genesis, as well as transformation, of Islamic art of India compared to pan-Islamic characteristics will be examined.
Not open for credit to students with credit in ART 467 or 598 W . Letter grade only (A-F).

## 568./468. Early Chinese Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
The formation and development of Chinese art from the third millennium to the $10^{\text {th }}$ century A.D.
Not open for credit to students with credit in ART 468 or 598X. Letter grade only (A-F).

## 569./469. Later Chinese Art (3)

Prerequisites: AH 111A, 111B, or consent of instructor.
Development of Chinese art from the 11th century A.D. through the dulmination of the tradition and its transformation in the 2oth century will be explored.
Not open for credit to students with credit in ART 469 or 598Y. Letter grade only (A-F).

## 570A./470A. Japanese Buddhist Art to 1500 (3)

Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of instructor.
Survey of sacred architecture, sculpture, painting, gardens and decorative art from neolithic culture through Zen Buddhism, reading images in regard to religious, political and social values. Not open for credit to students with credit in AH 470. Letter grade only (A-F).
570B./470B. Japanese Art 1500-1868 (3)
Prerequisite: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Analysis of secular painting, architecture, ceramics and garden design in the Momoyama and Edo periods, linking the wide variety of subjects and styles to the competing values of samurai, priest, aristocrat or merchant class patrons.
Not open for credit to students with credit in AH 470. Letter grade only (A-F).

## 571A./471A. Modern Japanese Graphic Art (3)

Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Examination of painting, prints, photography and graphic design in regard to the issues of individual and national identity in an era when being modern was often linked to being Western. We also consider manga in regard to earlier modern adaptations of traditional design.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

## 571B./471B. Modern Japanese Plastic Art (3)

Prerequisite: One of the following: AH 113A, 113B, 111A, 111B, 111C, A/ST 393, 451, or consent of the instructor.
Investigation of architecture, gardens, sculpture and ceramics in light of debates over internationalism or nationalism, modernity or tradition. The political and economic implications of design choices will be highlighted.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

## 595. Independent Study In Art History (1-6)

Independent, in-depth research projects to be conducted by students under the supervision of a faculty member.
As per university policy on independent studies courses, each student enrolled in this course must have an agreement, or "contract" on file in the department office. The agreement is to be made between the student and the instructor at the beginning of the course, and must include: a description of the work to be accomplished, specific information on the tasks required; the nature of the final report, and the basis for determining the final grade. The agreement must be signed by both the instructor and the student.
Letter grade only (A-F).

## 596. Special Problems in Art History (3)

Graduate level variable directed study projects providing a way for students to independently pursue special research topics in art history under instructor supervision.
May be repeated to a maximum of 9 units. Letter grade only (A-F).

## 597./497. Seminar in Art History (3)

Prerequisite: AH 307 or consent of instructor.
Directed individual research and group discussion concerning a topic in art history.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. Not open for credit to students with credit in ART 497 or 611 beyond combined maximum units. Letter grade only (A-F).

## 598. Special Topics in Art History (3)

Prerequisite: AH 307 or consent of instructor.
Topics from selected areas of Art History. Content may vary each semester.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F).

## 599Q. Special Problems in Museum Studies (3)

Prerequisite: Consent of instructor.
Advanced individual graduate projects, with faculty supervision, in museum studies.
May be repeated to a maximum of 6 units in same semester and a total of 12 units in different semesters. ( 6 hrs. lab.) Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisite: Advancement to Candidacy and an approved Thesis Statement.
Execution and completion of an approved thesis.
Open only to Art history students. Required of all candidates for the MA in Art, specialization in Art History. Letter grade only (A-F).

# ASIAN AND ASIAN AMERICAN STUDIES <br> College of Liberal Arts 

Department Chair<br>John N. Tsuchida<br>Vice Chair<br>Hsin-sheng C. Kao<br>Department Office<br>Faculty Offices FO3-340<br>Telephone<br>(562) 985-4645<br>FAX<br>(562) 985-1535<br>\section*{Center}<br>Center for Asian Pacific American Studies<br>Website<br>http://www.csulb.edu/dept/as<br>Faculty<br>\section*{Professors}<br>Arnold P. Kaminsky, Hiroko Kataoka, Hsin-sheng C. Kao, San-pao Li (Emeritus), Yoko Pusavat (Emeritus), John N. Tsuchida

## Associate Professors

Linda N. España-Maram, Tianwei Xie

## Assistant Professors

Masako O. Douglas, Atsuko Hayashi, Barbara W. Kim, Feng-Ying Ming, Dean S. Toji
Graduate Advisor
Hsin-sheng C. Kao
Undergraduate Advisor
Hsin-sheng C. Kao

## Associate Faculty

Christine Bhat (Educational Psychology, Administration and Counseling), Jeffrey Broughton (Religious Studies), Kendall Brown (Art History), Pamela Bunte (Anthropology), Chi-Ah Chun (Psychology), Vincent Del Casino (Geography), Thamora Fishel (Anthropology), Frank Gossette (Geography), Lisa Grobar (Economics), Sarath Gunatilake (Health Science), Jack W. Hou (Economics), Tomotaka Ishimine (Economics), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), William Mulligan (Journalism), Kim Oanh Nguyen-Lam (CLMER), Alan T. Nishio (Public Policy), Eve Oishi (Women's Studies), Karen Quintiliani (Anthropology), Eugene Ruyle (Anthropology), George Scott (Anthropology), Sharon Sievers (History), Paul Tang (Philosophy), Teresa Wright (Political Science), R. Scott Wilson (Anthropology), and Teri Yamada (Comparative World Literature and Classics).

## Administrative Support Coordinator

Yuriko Toma

Students desiring information should contact the department office for referral to one of the faculty advisors.

The Department of Asian and Asian American Studies (AAAS), through its multiple offerings and those in related departments, fosters multi-ethnic and cross-cultural understanding within a global, multi-disciplinary perspective; facilities a greater understanding of Asians in America to enhance multi-cultural education and appreciation of ethnic diversity in California and the United States; and pursues an active language education program to promote cross-cultural awareness and intercultural understanding.

In the broad context, the department's major responsibilities revolve around international/area studies, ethnic studies and language studies. Asian Studies enables students to explore Asian civilizations from an interdisciplinary perspective; Asian American Studies investigate the nature of Asian immigration and Asian American experiences in the United States; Chinese Studies provices students with cultural, literary, and linguistic preparations; and Japanese language studies provide linguistic and cultural training in Japanese language and language related areas. Asian language courses are also appropriate electives to support several of the majors offered by the University.

Students in all programs are encouraged to integrate the study of Asian cultures and societies across the Pacific with that of Asian American communities in the United States and to support the study of culture and society with appropriate language training.

The department curricula provide students with knowledge and training necessary for (1) various occupations and careers including teaching, school administration, social work, public service, urban planning, communications and the media, foreign business and trade, (2) professional work in the Asian American community, (3) exploring an educational dimension by emphasizing and focusing on ethnic minorities.

Through courses of its own and those of cooperating departments, the Department of Asian and Asian American Studies offers the B.A. and M.A. in Asian Studies; the B.A. in Chinese Studies; a Single Subject Teaching Credential in Japanese, the B.A. in Japanese, a Minor in Asian American Studies, a Certificate in Asian Studies, a Certificate in Asian American Studies, and a Certificate in Japanese. The department also offers a Concentration in Japanese and a Concentration in Asian American Studies under Track II of the Bachelor of Arts in Liberal Studies. (See University Programs in this Catalog.) Additional information and advice relative to the programs are available through the department office, FO3-340.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Asian Studies (code A/STBA01) (120 units)

Students choosing an Asian Studies major are advised to select one of two tracks for the degree. The student may choose an area of studies track, concentrating on one or more specific Asian societies, such as China, Japan, India, or Southeast Asia. Or, the student may choose to focus on an Asian American Studies track and combine the study of Asian Americans as ethnic minorities with supporting investigation of the countries of their historical origin.

## Requirements

1. ASAM 200 or 220 ;
2. A/ST 300I, 301I and 492;
3. Three semesters (or the equivalent) of a single Asian language, chosen from courses in Chinese, Japanese, or an Asian language approved by the undergraduate advisor.
Upper Division: A minimum of 21 units; students should select one of the following two tracks:

## I. Area Studies Track

21 units of upper division work, including A/ST 492
(Proseminar in Asian Studies), and additional courses selected from the list of approved electives with the following provisions: (1) no more than 9 units shall be counted in a single discipline such as art or history, (2) no more than 9 units shall be credited that concentrate upon any one area of Asia, chosen from among the following: China, India, Japan, or Southeast Asia. No more than 6 units of courses on the Americas can be applied toward this requirement (N.B. In the case of seminar, thematic, or variable topic courses, the assignment of a disciplinary and/or geographic category will be made by the undergraduate advisor in consultation with the appropriate faculty member).

## II. Asian American Studies Track

21 units of upper division work, selected from the list of approved electives with the following provisions: (1) A/ST 492 (Proseminar in Asian Studies [3 units]); (2) 12 units of upper division Asian American Studies including ASAM 310 and 345 ; (3) the remaining upper division units focusing on one geographical area of Asia, chosen from among the following: China, India, Japan, or Southeast Asia.

## Certificate in Asian Studies (code A/STCT01)

A student may earn a Certificate in Asian Studies with a concentration on China, Japan, India, or Southeast Asia. Where applicable, courses used to meet the certificate requirements also may be used to satisfy the General Education requirement and the major and teaching minor requirements of the cooperating departments.

## Requirements

1. A bachelor's degree, with a major in a discipline other than Asian Studies. May be completed concurrently;
2. A minimum of two semesters or its equivalent of an approved Asian language which is to be selected in accordance with the area of concentration;
3. A/ST 300I, 301 I and 12 units of upper division work divided among two or more disciplines. These are to be selected in accordance with the area of concentration and in consultation with the student's advisor. No more than 6 units in any one discipline shall apply towards the Certificate.

## Bachelor of Arts in Asian American Studies (code A/STBA04) (120 units)

The Bachelor of Arts degree in Asian American Studies provides an interdisciplinary approach to explore the diverse history, cultures, communities, and contemporary realities in Asian America. It is designed to offer students an opportunity to develop a greater understanding of the complexities of Asian American experiences and to prepare them to function in a multiethnic society and multicultural world. The communication and critical analysis skills which are stressed in the program will be instrumental to students pursuing postbaccalaureate degrees in "traditional" disciplines, including History, Geography, Sociology, Psychology, and Literature; in interdisciplinary programs like Ethnic Studies and Women's Studies; and in professional fields such as Law, Business Administration, and Social Work. The program's curriculum and broad liberal arts perspectives likewise will prepare students for employment in several professions, including education, public policy, community development, media, social services, and human resources. Admission to the program requires completion of the G.E. Foundation courses.

## Requirements

A major in Asian American Studies requires a minimum of 40 units, with at least 18 units earned in residence at CSULB. 40 required units to consist of:
A. 6 units of lower-division core courses
B. 3 units of lower-division elective
C. 16 units of upper-division core courses
D. 15 units of upper-division electives in the following areas:

Specific Ethnic Group Focus
Gender Studies
Asian Americans in Comparative Perspectives
Explorations in Asian America
Asian American Studies-Related Courses
Lower-Division Core Courses (6 units): ASAM 220, 221.
Lower-Division Elective (3 units): selected from the following: ASAM 200, 260, 290, 299
Upper-Division Core Courses (16 units): A/ST 300I, 301I, or 310; ASAM 305, 345, 346, 495
Upper-Division Electives (15 units): 12 units from at least two of the first four groups and 3 units from the fifth group.
Group 1. Specific Ethnic Group Focus:
ASAM 330, 331, 332, 333, 334, 352
Group 2. Gender Studies: ASAM 340, 370, 381
Group 3. Asian Americans in Comparative Perspectives: ASAM 319, 335I, 403, W/ST 318I
Group 4. Explorations in Asian America: ASAM 310, 347, 360, 380, 410, 490, 499

Group 5. Asian American Studies-Related Courses: ANTH 329, 419, ANTH/W/ST 475/LING 470, CHLS 421, COMM 330, CWL 415I, ENGL 375, HIST 469, 473, LING 472, POSC 323, PSY 368, 375, SW 350, 481I, SOC 346, W/ST 432

## Minor in Asian American Studies (code A/STUM01)

## Requirements

The Minor in Asian American Studies is available to all majors.
A minimum of 22 units which must include: (a) ASAM 200 or $319,220,260$ or 310 , and 345 , and (b) nine units selected from among the following: ASAM 260, 310, 330, 331, 332, $333,334,335 \mathrm{I}, 340,346,347,352,360,370,381,403,410$, 490, 495, 499.

## Certificate in Asian American Studies (code A/STCT02)

Students pursuing any approved degree or credential program of the University may at the same time earn a Certificate in Asian American Studies. Courses taken to meet the requirements may simultaneously be used, where applicable, to meet General Education requirements or the degree or credential requirements of cooperating departments. Certification of successful completion of requirements will be issued upon the recommendation of the department chair.

## Requirements

1. A bachelor's degree with a major other than Asian Studies.

May be completed concurrently;
2. A minimum of 30 units distributed as follows:
a. ASAM 200 or $319,220,260$ or $310,345,370$ (required), plus;
b. additional courses selected from: ASAM 260, 310, 330, 331, 332, 333, 334, 335I, 340, 346, 347, 352, 360, 370, 380, 381, 403, 410, 490, 495, 499. (See approved list of courses below.)
Interested students should apply to the department office.

## GRADUATE PROGRAM

## Master of Arts in Asian Studies (code A/STMA01)

The master of arts degree in Asian Studies is an interdisciplinary degree offered by the Asian Studies faculty of its cooperating departments. It is especially aimed at those intending to go into teaching, foreign service, or foreign trade. Students applying for the M.A. Program in Asian Studies must apply for admission to the University and simultaneously provide official transcripts and two letters of recommendation to the graduate advisor of the department.

## Prerequisites

1. A Bachelor's degree with a major in Asian Studies; or
2. A Certificate in Asian Studies, awarded at CSULB, or its equivalent as evaluated by the Graduate Advisor of the Department of Asian and Asian American Studies. Equivalency will, normally, be granted for work in Asia-related studies at CSULB and/or at other academic
institutions, including a minimum of 18 units in no more than four disciplines with a minimum of six units in each of two disciplines of concentration plus two semesters of an approved Asian language. Only courses with a substantive Asia-related content are acceptable; or
3. A bachelor's degree in one of the fields in social science, humanities, or fine arts with 24 units of upper division Asia-related courses. These courses must be comparable to those required of a major in Asian Studies at this University. Deficiencies will be determined by the graduate advisor after consultation with the student and after evaluation of transcript records. Students whose undergraduate prerequisites are inadequate will be required to fulfill these deficiencies before advancement to candidacy and will receive unclassified graduate status until all deficiencies are removed.

## Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy;
2. Completion of 6 or more of the required units (not including language) with a minimum 3.0 overall GPA;
3. Approval of proposed program of study;
4. Satisfactory fulfillment of the Graduation Writing Assessment Requirement (GWAR).

## Requirements

1. A minimum of 30 units of approved upper division and graduate courses including A/ST 592 and A/ST 610. At least 18 units must be in the 500-600 series composed of units earned at this University in graduate courses, graduate seminars, Directed Studies/Research or Thesis. All seminars and independent study courses may be repeated to a total of six (6) units, provided the topic is different. Directed Studies, Readings and Research, in any combination, may not exceed a total of six (6) units: A/ST 698 (thesis) must be taken for a minimum of four and a maximum of six units will be given for A/ST 698 for those taking the thesis option.
2. A minimum of three upper division units in each of two disciplines of concentration must be taken preparatory to seminar work. Students should take at least six units of 500/600 level work in each of the two disciplines or concentrations;
(N.B. Determination of the disciplinary status of any Asian Studies or any other courses taken at CSULB or other academic institutions shall be at the discretion of the Graduate Advisor in consultation with faculty, review of syllabi and reading lists, assessment of transcripts, etc.)
3. Comprehensive written examination in each of the two disciplines of concentration or a thesis. Students must have received permission of the Graduate Advisor, faculty advisor and prospective committee members before being allowed to file for the thesis option. Once selected, a student may not change his/her option.
4. Six units (beyond the B.A. level) in Chinese or Japanese or an Asian language approved by the Graduate Advisor. Waiver of this requirement, either by transfer of credits from another institution or by assessment of proficiency by resident faculty, is at the discretion of the Graduate Advisor of the Department of Asian and Asian American Studies.

## Upper Division Courses Acceptable:

A/ST 320, 406AB, 490, 492, 499; ANTH 332, 333, 335,
*416, *417, *419, 427, *490; AH 466, 467, 468, 469,
470A/B, 471A/B, *497, *498; CWL 403, *448, *499; CHIN
380, 390, 410, 430ABC, 451, 488, 490, 492, 499; GEOG
326, *494, *497; HIST 384, 385, 386, 405, 406A, 406B,
409, 488, *495, *498; JAPN 350, 451, 471, 490, 497;
*PHIL 499; POSC 362, 363, 364, 366, 455, 469*, 485*,
*489, *497, *499; R/ST *490, *499; *W/ST 406, 406A, 490, *499

* course must be an approved Asia-related topic.


## Asian Studies (A/ST)

## LOWER DIVISION

## 190. The Tao Primer of Basic Reasoning (3)

Prerequisites/Corequisite: ENGL 100 or its equivalent.
Natural language of Tao aphorisms used for informal and formal types of reasoning; learning Yin and Yang basic analytic steps; applying Tao principles and processes of reasoning to contemporary, common-place, and intercultural issues and problems logically and practically.

## 290. Special Topics in Asian Studies (3)

Prerequisite: Consent of instructor.
Topics of special interest in Asian Studies selected for intensive study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 299. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 3001. Traditional Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses, and upper-division standing.
Interdisciplinary examination of traditional civilizations of Asia. This team-taught course focuses on two Asian civilizations, normally China and India, and may periodically focus on Japan. Course examines topics related to Asian cultures to illustrate the richness and diversity of Asia.

## 301I. Modern Asia (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Emphasis on development of Asia since the 18th century and its role in the modern world; some attention to the experience of Asians in the U.S. Continuity and change, reform and revolution in culture, politics and the economy will be included.

## 310. United States and Asia (3)

Focusing on the post-1945 period, this course will examine four main areas: (1) key religious, social and political patterns in Asia; (2) cross-cultural images of Asia and America; (3) AsianU.S. global economic relations; and (4) Asian-U.S. strategic and political relationships.

## 320. Asia in Fiction and Film (3)

Focuses on Asian-Western interactions and particularly on AsianWestern perspectives of these interactions as manifested in film and works of fiction. Focus on China, Japan and/or India; consideration given to Asian experience in America.

## 393. Japan's Heritage (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Cultural heritage of Japanese civilization emphasizing history, philosophy, religion, literature and fine arts from prehistory to the present.
Letter grade only (A-F).
406A. Asian Women: East and Northeast Asia (3)
Prerequisite: Upper division status.
Exploration of the histories of women in China, Japan and Korea from prehistory to the present. Major themes include women's contributions to social, cultural and political change, and the complex relationship between feminism and nationalism in the modern period.
Same courses as HIST 406A and W/ST 406A.
406B. Asian Women: South and Southeast Asia (3)
Emphasis on modern period; exploration of complexitites of women's roles in multicultural, multilingual societies in South and Southeast Asia, including gender as continuing site of contention in nationalist discourse.
Same courses as HIST 406B and W/ST 406B. Letter grade only (A-F).
441. Khmer Literacy for Khmer Speakers: Introduction (3)

Prerequisite: Fluent oral skills in Khmer.
First of a four-course sequence. Introduction to Khmer writing system. Practice in reading, decipherment, vowels, consonants and syllable combinations. Oral practice, honorifics, culturally appropriate interaction.
Letter grade only (A-F). Same course as LING 441.
442. Khmer Literacy for Khmer Speakers: Intermediate A (3)

Prerequisite: A/ST 441 or consent of instructor.
Second of a four-course sequence. Continued practice in Khmer writing system. Vocabulary development, reading, and writing long sentences and simple text. Appropriate social and educational discourse.
Letter grade only (A-F). Same course as LING 442.
443. Khmer Literacy for Khmer Speakers: Intermediate B (3)

Prerequisite: A/ST 442 or consent of instructor.
Third of a four-course sequence. Contextual reading for comprehension, cultural and grammatical knowledge. Development of oral skills through discussion of content, role play and verbal critique. Letter grade only (A-F). Same course as LING 443.
444. Khmer Literacy for Khmer Speakers: Advanced (3)

Prerequisite: A/ST 443 or consent of instructor.
Fourth of a four-course sequence. Composition and written translation. Preparation for BCLAD tests 5 \& 6: Culture and Language of Emphasis. Reading authentic texts.
Letter grade only (A-F). Same course as LING 444.
*490. Special Topics in Asian Studies (3)
Topics of special interest in Asian Studies selected for intensive study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics .

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A. Modern Chinese Literature
B. China in Transition
C. Modern Vietnam
D. Filipino Language, Literature and Culture
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## 492./592. Proseminar in Asian Studies (3)

Prerequisites: Consent of instructor.
Introduction to research methods. Intensive study of selected conceptual and theoretical issues in Asian Studies or Asian American Studies. Area and discipline of emphasis will vary from year to year.
May be repeated to a maximum of 6 units.
495I. China Heritage (3)
Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses; upper-division standing.
Cultural heritage explored through history, philosophy, religion and science, side by side with the fine arts; seen as the totality of a people's humanistic experience. (Lecture, discussion and film) (Lecture, discussion, film.)

## 499. Directed Studies (1-3)

Prerequisite: Consent of Instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## GRADUATE LEVEL

Graduate course descriptions are found in the departmental listings in which they are offered. Graduate courses applicable for the degree (only when the focus is on Asia) are: AH 566, 567, 568, 569, 570, 571, *596, *597; A/ST 543, 544, 551, 592, 610, 695, 697, 698; ANTH 516, 517, 519, 597, 697; ART 611; ASAM 595; CHIN 530A,B,C, 551, 590, 592; CWL 503, 522, 548, 550; ECON 690; GEOG 650, 697; HIST 505, 509, 510(G), 682, 695, 697; JAPN 551, 562, 581, 592, 695, 697; PHIL 697; POSC 590, 599, 600, 610, 670, 697; R/ST 646, *690, *697.

## 543. Religions of China (3)

Ancient Chinese religious thought; penetration of Indian Buddhism and Ch'an (Zen); popular religion and the religion of the scholarofficial. Emphasis will be on original texts in translations.
Not openfor credit to students with credit in R/ST 343. Letter grade only (A-F).

## 544. Religions of Japan (3)

The transmission of continental civilization to Japan; Shinto, Buddhism and Tokugawa Neo-Confucianism; Genroku culture; and the New Religions. Emphasis on original texts in translations.
Not open for credit to students with credit in R/ST 344. Letter grade only (A-F).

## 551. Hinduism (3)

Survey of ancient, classical and medieval Hinduism. Emphasis on analysis of Upanishads, Bhagavad Gita and the various paths of Yoga.
Not open for credit to students with credit in R/ST 351. Letter grade only (A-F).

## 592./492. Proseminar in Asian Studies (3)

Prerequisites: Consent of the instructor.
Introduction to research methods. Intensive study of selected conceptual and theoretical issues in Asian Studies or Asian American Studies. Area and discipline of emphasis will vary from year to year.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
610. Seminar in Asian Studies (3)

Selected topics in Asian Studies. Area and discipline of emphasis will vary from year to year. Open to graduate students of Asian Studies. Graduate students in other disciplines may enroll with consent of instructor.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
695. Directed Readings (1-3)

Prerequisites: Consent of Graduate Advisor.
Readings in Asian Studies on an individual basis.
Letter grade only (A-F).
697. Directed Research (1-3)

Prerequisites: Consent of Graduate Advisor.
Research in Asian Studies on an individual basis.
Letter grade only (A-F).
698. Thesis (2-6)

Prerequisite: Consent of the Graduate Advisor.
Planning, preparation, and completion of a thesis in Asian studies.

## Asian American Studies (ASAM)

## LOWER DIVISION

## 1. Language Skills (3)

Focuses on intensive development of grammatical skills and expository writing. Primarily for Asian American students. Counts as part of student course load but does not carry graduation credit.
Credit/no credit only. Counts as part of student course load but does not carry graduation credit.

## 100. Language Skills (3)

Prerequisite: A recorded total score of 151 or above on the English Placement Test, or credit in ASAM 1 (or its equivalent) and consent of the instructor.

Covers organizational methods and techniques for writing compositional and expository prose, advanced grammar, and critical reading techniques for term papers.
Not open for credit to students with credit in ENGL 100, B/ST 100, CHLS 104.

## 200. Asian American Inter-Ethnic Relations (3)

Prerequisites: Completion of GE Foundation requirements.
Inroduction to a comparative survey of racial/ethnic experiences in the U.S., with a focus on Asian Americans.
Not open for credit to students with credit in AIS 319, ASAM 319, B/ST 319, CHLS 319, C/LA 319, and W/ST 319. Letter grade only (A-F).

## 215. U.S. Diversity and the Ethnic Experience (3)

Open only to Integrated Teacher Education Program students.
Surveys historical and contemporary experiences of the four major ethnic groups (American Indians, African Americans, Latinos, and Asian Americans) in American society from the colonial era to the present.
Same course as AIS 215, B/ST 215, CHLS 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

## 220. Asian American History (3)

Prerequisite: Completion of the 13-unit GE Foundation requirements.
Overview of experiences of people of Asian ancestry in the United States. Major themes include: immigration (labor migration and refugee resettlement), racism and economic conflict, resistance to discrimination, and community building.

## 221. Contemporary Issues in Asian America (3)

Prerequisites: Completion of the GE Foundation requirements.
Examination of contemporary issues, including immigration, labor, family, public policy, popular culture, the media, and political activism in Asian America. Focuses on the U.S. in the context of the global economy and Asian diasporas.
Letter grade only (A-F).
260. Introduction to Asian American Literature (3) Prerequisites: Completion of GE Foundation requirements. Introduction to representative works by Asian Pacific American authors. Emphasizes interpretation of historical and contemporary Asian American experiences in various literary genres.
Letter grade only (A-F).
290. Special Topics in Asian American Studies (3)

Prerequisite: Consent of instructor.
Topics of current interest in Asian American Studies selected for intensive development.
Topics will be announced in the Schedule of Classes. May be repeated $t$ a maximum of 6 units with different topics.
299. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 305. Theories and Methods in Asian American Studies (3)

Prerequisites: Upper-division standing or consent of instructor, ASAM 220 and completion of General Education category "A" requirement.
Explores various approaches and theoretical underpinnings which have been employed to examine Asian American experiences. Students will have the opportunity to conduct research on Asian American topics of their interest.
Letter grade only (A-F).

## 310. Asian Americans and Education

Examining problems and potentials of a multi-racial classroom for the understanding of, and relating to students of, diverse cultural backgrounds, with an emphasis on the Asian American. Small group interaction and counseling of individual students.
319. The Ethnic Experience in the U.S. (3)

Examines the dynamics of our multicultural society, emphasizing ways in which Asian American, Black American, Mexican American, and American Indian experiences have shaped cultural diversity in the U.S.
Same course as AIS 319, B/ST 319, CHLS 319, W/ST 319. (Lecture/Discussion.)

## 330. Japanese American Experience (3)

A study of the culture, history, and literature of Japanese in America, emphasizing immigrant experience, agricultural contributions, World War II, generational issues, women in transition and family.

## 331. Chinese American Experience (3)

A study of the culture, history, and literature of Chinese in America, emphasizing immigrant experience, generational issues, women in transition and family.

## 332. Korean American Experience (3)

A study of the culture, history, and literature of Koreans in America, emphasizing refugee immigrant experience, generational issues, women in transition and family.

## 333. Vietnamese American Experience (3)

A study of the culture, history, and literature of Vietnamese in America, emphasizing immigrant experience, generational issues, women in transition and family.
334. Cambodian American Experience (3)

A study of the culture, history, and literature of Cambodians in America, emphasizing refugee and immigrant experiences, generational issues, women in transition and family.
335I. Asian and Latino Immigration Since World War II (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the causes of massive Asian and Latino immigration as well as major contemporary issues in the Asian and Latino communities.
Same course as CHLS 335I. (Lecture and discussion, 3 hours)

## 340. Asian American Family (3)

Prerequisites: Completion of Foundation Courses and upper-division standing.
Provides perspectives on the varieties of Asian American families by examining the social, economic, political, and cultural factors crucial in the development of conventional as well as alternative familial units.

## 345. Asian American Community Analysis (4)

Examines socioeconomic, political and cultural profile of Asian American communities, as well as role and function of community organizations. Training in community surveys and service.
(Lecture, activity)

## 346. Asian Americans and the Law (3)

Examines how laws have been used to restrict Asian Americans' social, political, educational, and economic activities, as well as how this ethnic group has utilized the legal system to fight discrimination and seek justice.

## 347. Asian Americans and Public Policy Issues (3)

Examines public policy issues, including racial and ethnic discrimination, civil rights violations, disparities in employment opportunities, and political, cultural and media representation, affecting Asian Americans and other minorities as well as members of the dominant society.
(Lecture 3 hours.)

## 352. Filipino/a American Experience (3)

Focusing on social, economic, political, and cultural dimensions of Filipino/a experiences in the United States, this course examines major issues, including legacies of imperialism, transnational patterns of capital and labor, colonial and post-colonial identities, resistance to oppression, and literary expressions.

## 360. Studies in Asian American Literature (3)

Provides theoretical foundation for the analysis of Asian Pacific American literature. Addresses various issues in contemporary Asian Pacific American literary criticism including transnationalism, historical memory, gender relations, sexuality, and the development of Asian Pacific American literary "aesthetics."

## 370. Gender and Sexuality in Asian America (3)

Prerequisites: Completion of Foundation Courses and upper-division standing.
Explores the diverse historical and contemporary experiences of Asian Americans with respect to gender roles and relationships, family, expressions of desire, as well as the relationships among gender, sexuality, and racial/ethnic identity.
380. Asian Philosophies and Religions in America (3)

Influence of and changes in Asian philosophies and religions in the American environment. Emphasis on Confucianism, Taoism, Hinduism, Buddhism and Shintoism in relation to individual and social values in America.

## 381. Asian American Women (3)

Reconstructs and examines Asian American women's history and contemporary experiences. Assesses the complexities of intersecting social categories of oppression and Asian American women's active pursuit of equality and dignity.
Same course as HIST 381 and W/ST 381. Lecture.

## 402. Asian American Film (3)

Prerequisites: Completion of GE Foundation requirements and upper division standing.
Employs films as cultural "texts" in exploring issues including race, gender, sexuality, migrations, and the politics of representation in Asian America.
Letter grade only (A-F).
403. Asian American and Chicano/Latino Cinema (3)

Prerequisites: Completion of the Foundation courses, at least one Explorations course, and upper division status.
A team-taught course that explores connections between Asian American and Chicano/Latino cinema, with emphases given to grounding issues presented in films within historical, literary, and cultural studies frameworks.
Same course as CHLS 403.

## 410. Poverty In Asian America (3)

Prerequisites: Completion of Foundation courses, at least one Explorations course, and upper division status.
Examines poverty among Asian Pacific Americans in the context of poverty in the U.S., theories about poverty's causes, anti-poverty policies, and poverty-fighting activities (nonprofit communitybased social services, labor organizing, community organizing and advocacy).
490. Special Topics in Asian American Studies (3)

Prerequisite: Consent of instructor.
Topics of current interest in Asian American Studies selected for intensive development. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.
495./595. Seminar in Asian American Studies (3)

Selected topics in Asian American Studies. Area and topics of emphasis will vary from year to year.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 499. Directed Studies (1-3)

Prerequisite: Consent of Instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 595./495. Seminar in Asian American Studies (3)

Selected topics in Asian American Studies. Area and topics of emphasis will vary from year to year.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## ASIAN LANGUAGES <br> College of Liberal Arts

Department of Asian and Asian American Studies

## Department Chair

John N. Tsuchida
Vice Chair
Hsin-sheng C. Kao
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Center
Center for Asian Pacific American Studies
Website
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Faculty

## Professors

Arnold P. Kaminsky, Hiroko Kataoka, Hsin-sheng C. Kao, San-pao Li (Emeritus), Yoko Pusavat (Emeritus), John N. Tsuchida

## Associate Professors

Linda N. España-Maram, Tianwei Xie

## Assistant Professors

Masako O. Douglas, Atsuko Hayashi, Barbara W. Kim, Feng-Ying Ming, Dean S. Toji
Graduate Advisor
Hsin-sheng C. Kao
Undergraduate Advisor
Hsin-sheng C. Kao

## Associate Faculty

Christine Bhat (Educational Psychology, Administration and Counseling), Jeffrey Broughton (Religious Studies), Kendall Brown (Art History), Pamela Bunte (Anthropology), Chi-Ah Chun (Psychology), Vincent Del Casino (Geography), Thamora Fishel (Anthropology), Frank Gossette (Geography), Lisa Grobar (Economics), Sarath Gunatilake (Health Science), Jack W. Hou (Economics), Tomotaka Ishimine (Economics), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), William Mulligan (Journalism), Kim Oanh Nguyen-Lam (CLMER), Alan T. Nishio (Public Policy), Eve Oishi (Women's Studies), Karen Quintiliani (Anthropology), Eugene Ruyle (Anthropology), George Scott (Anthropology), Sharon Sievers (History), Paul Tang (Philosophy), Teresa Wright (Political Science), R. Scott Wilson (Anthropology), and Teri Yamada (Comparative World Literature and Classics).
Administrative Support Coordinator
Yuriko Toma

Students desiring information should contact the department office for referral to one of the faculty advisors.

The Department of Asian and Asian American Studies (AAAS), through its multiple offerings and those in related departments, fosters multi-ethnic and cross-cultural understanding within a global, multi-disciplinary perspective; facilities a greater understanding of Asians in America to enhance multi-cultural education and appreciation of ethnic diversity in California and the United States; and pursues an active language education program to promote cross-cultural awareness and intercultural understanding.

In the broad context, the department's major responsibilities revolve around international/area studies, ethnic studies and language studies. Asian Studies enables students to explore Asian civilizations from an interdisciplinary perspective; Asian American Studies investigate the nature of Asian immigration and Asian American experiences in the United States; Chinese Studies provices students with cultural, literary, and linguistic preparations; and Japanese language studies provide linguistic and cultural training in Japanese language and language related areas. Asian language courses are also appropriate electives to support several of the majors offered by the University.

Students in all programs are encouraged to integrate the study of Asian cultures and societies across the Pacific with that of Asian American communities in the United States and to support the study of culture and society with appropriate language training.

The department curricula provide students with knowledge and training necessary for (1) various occupations and careers including teaching, school administration, social work, public service, urban planning, communications and the media, foreign business and trade, (2) professional work in the Asian American community, (3) exploring an educational dimension by emphasizing and focusing on ethnic minorities.

Through courses of its own and those of cooperating departments, the Department of Asian and Asian American Studies offers the B.A. and M.A. in Asian Studies; the B.A. in Chinese Studies; a Single Subject Teaching Credential in Japanese, the B.A. in Japanese, a Minor in Asian American Studies, a Certificate in Asian Studies, a Certificate in Asian American Studies, and a Certificate in Japanese. The department also offers a Concentration in Japanese and a Concentration in Asian American Studies under Track II of the Bachelor of Arts in Liberal Studies. (See University Programs in this Catalog.) Additional information and advice relative to the programs are available through the department office, FO3-340.

## Cambodian (KHMR)

## LOWER DIVISION

111. Accelerated Study of Khmer for Heritage Speakers I (4)
Prerequisites: Linguistic competency equivalent of a beginning Khmer speaker; one GE Foundation course that may be taken concurrently.
Linguistic and cultural aspects of Khmer language for heritage speakers. Oral and written communication skills in Khmer. Intensive study of literary, historical, social, and aesthetic traditions of Cambodia as seen through Khmer language and literary texts.
Letter grade only (A-F).
112. Accelerated Study of Khmer for Heritage Speakers II (4)
Prerequisites: KHMR 111 linguistic competency or equivalent. Intermediate level linguistic study and cultural aspects of Khmer for heritage speakers. Oral and written communication skills and intensive study of literary, historical, social, and aesthetic traditions of Cambodia through the Khmer language and literary texts.
Letter grade only (A-F).

## Korean (KOR)

## LOWER DIVISION

## 101. Fundamentals of Korean (4)

Prerequisite/Corequisite: One GE Foundation course.
Introduction to the writing system, pronunciation, vocabulary, and grammar of the Korean language and Korean culture.
Students with previous training or native speakers of Korean may not enroll.

## 102. Fundamentals of Korean (4)

Prerequisites/Corequisites: One GE Foundation course. Completion of KOR 101 or competency equivalent to KOR 101.
Introduction to the Korean grammar, reading, writing, and conversation and Korean culture.
Students with previous training or native speakers of Korean may not enroll.

Vietnamese(VIET)

## LOWER DIVISION

## 111. Accelerated Vietnamese for Heritage Students I (4)

Prerequisites: One GE Foundation course that may be taken concurrently. Conversational ability of Vietnamese.
Designed for students who have listening and speaking ability of Vietnamese. Focuses on Vietnamese literacy and culture, including developing reading and writing skills in context.
Letter grade only (A-F).
211. Accelerated Vietnamese for Heritage Students II (4)

Prerequisites: VIET 111. Ability to speak and comprehend Vietnamese oral and written language at the interpersonal communicative level.

Designed for students who have intermediate listening and speaking ability of Vietnamese and the ability to comprehend simple written Vietnamese texts. Focuses on Vietnamese literacy and culture, including developing reading and writing skills in context.
Letter grade only (A-F).

# ATHLETICS <br> University Programs 

## Director

Victor Cegles

## Telephone

(562) 985-4655

The University sponsors a complete athletic program. Athletics is the administrative unit responsible for the supervision of intercollegiate athletic programs.
The department sponsors a diverse program of intercollegiate athletics for men and women. Both programs compete under the rules of the National Collegiate Athletic Association, the Big West Conference, and the Mountain Pacific Sports Federation, maintaining membership in each organization. Women's varsity sports are basketball, golf, cross-country, soccer, tennis, indoor/outdoor track and field, volleyball, water polo and softball. Men's varsity sports are basketball, baseball, indoor/outdoor track and field, crosscountry, water polo, volleyball, and golf. Students enrolling in intercollegiate athletic programs must meet all NCAA eligibility requirements. Information concerning athletic opportunities available to male and female students and the financial resources and personnel that CSULB dedicates to its men's and women's teams may be obtained from Cindy Masner, Department of Athletics, (562) 985-1904.

Students may apply no more than four (4) semester units of lower-division ATHL courses toward the baccalaureate degree within the 20-unit maximum on activity units generally, except that the combined total of lower-division ATHL activity units must not exceed four (4) units and the total of lower-division KIN activity units must not exceed eight (8) units. Upper-division ATHL courses, with the exception of ATHL 325, may be taken one time only and not in conjunction with the lower division ATHL courses. ATHL 325 may be repeated to a maximum of four (4) semester units and may be taken in conjunction with any other ATHL course.

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

## Courses (ATHL)

## LOWER DIVISION

## 260-299. Intercollegiate Sports (1)

Enrollment subject to approval of the coach of the sport. Competition in NCAA-regulated major and minor sports. Athletes enrolled who fail to qualify for squad must withdraw from course.
May be repeated to a maximum of 4 units. Credit/No Credit grading only.

## 261. Women's Softball (1)

262. Men's Baseball (1)

## 263. Women's Basketball (1)

## 264. Men's Basketball (1)

265. Women's Track and Field (1)
266. Men's Track and Field (1)
267. Women's Volleyball (1)
268. Women's Water Polo (1)
269. Men's Water Polo (1)
270. Men's Volleyball (1)
271. Women's Golf (1)
272. Men's Golf (1)
273. Women's Tennis (1)
274. Women's Cross-Country (1)
275. Men's Cross-Country (1)
276. Women's Soccer (1)

## UPPER DIVISION

## 319. Theory and Practice of Minor Intercollegiate Sports

 (2)320. Theory and Practice of Major Intercollegiate Sports (2)

Credit/No Credit grading only.

## 325. Student-Athlete Leadership Development and University Service (1)

Prerequisites: Upper division standing, consent of instructor. Must be an official member of an NCAA Intercollegiate team at CSULB. Juniors/seniors hone communication and facilitation abilities to better function within groups, the community, and careers. Skills in people dynamic and group process, information on academic, athletic, and how a peer mentor can positively impact that development. Heavy emphasis placed on experiential component of learning.
May be repeated to a maximum of 4 units. May be taken in conjunction with any other ATHL course. Credit/No Credit grading only.

# BIOLOGICAL SCIENCES <br> College of Natural Sciences and Mathematics 

## Department Chair

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Website
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Faculty

## Professors

Rajen S. Anand (Emeritus), James W. Archie, Judith A. Brusslan, L.K. (Vern) Eveland, Henry C. Fung, Charles P. Galt (Emeritus), Editte Gharakhanian, Carol A. Itatani, Balwant S. Khatra, Laura Kingsford, Lisa S. Klig, Steven L. Manley, Andrew Z. Mason, Alan C. Miller (Emeritus), Terrence A. Shuster (Emeritus), Toni L. Stanton (Emeritus)

## Associate Professors

Flora Banuett, Elizabeth D. Eldon, David G. Huckaby, Kevin M. Kelley, Kay K. Lee-Fruman, Christopher G. Lowe, Dessie L. A. Underwood, Raymond R. Wilson, Jr.

## Assistant Professors

Jesse G. Dillon, Esteban Fernandez-Juricic, Clifton V. Franklund, Peter J. Hodum, Simon Malcomber, Donna L. Marykwas, Bruno G. Pernet, Bryan C. Rourke, Kelly A. Young, Mason X. Zhang
Administrative Support Coordinator
Susan Suetsugu
Credential Advisor
Laura Henriques, James Kisiel
Undergraduate Advisors
General Biology and Biology Education - David G. Huckaby Botany, Ecology, and Zoology - Dessie L. A. Underwood
Marine Biology - Gwen Goodmanlowe
Microbiology - L.K. (Vern) Eveland
Physiology and Cell and Molecular Biology - Balwant S. Khatra

## Graduate Advisor

Judith A. Brusslan
Honors in the Major Advisor
Vacant
Health Professions Advising Office (FO5-109)
Carol A. Itatani, Faculty Director
Clinical Laboratory Scientist/Medical Technology Advisor
Carol A. Itatani
Biotechnology Certificate Advisor
Lisa S. Klig

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

The Biological Sciences include all of the areas of scientific endeavor centered around the general question of the nature of life. Such diverse areas as biochemistry, ecology, paleontology, and animal behavior are all part of the biological sciences. On this campus the biological sciences are distributed among three separate Departments in the College of Natural Sciences and Mathematics. The discipline of biochemistry is located in Chemistry and Biochemistry and the disciplines
of invertebrate and plant paleontology are located in Geological Sciences. For information about the programs in these disciplines, consult the appropriate section of this Catalog. The remaining disciplines of the biological sciences represented in the College of Natural Sciences and Mathematics are located in the Department of Biological Sciences, which offers five degrees: a Bachelor of Science in Biology, a Bachelor of Science in Marine Biology, a Bachelor of Science in Microbiology, a Master of Science in Biology, and a Master of Science in Microbiology. The B.S. in Biology has, in addition to a general option, six specialized options in Biology Education, Botany, Cell and Molecular Biology, Ecology, Physiology, and Zoology. See below for the specific requirements for each of these degrees and options.

The Department occupies facilities in five science buildings. Courses and student research in organismal biology and ecology are enhanced by a marine biology laboratory with an extensive seawater system, greenhouses, and research and teaching collections of algae, vascular plants, invertebrates (including insects), and vertebrates. Because the campus is near the ocean, mountains, and deserts, the Department is able to offer a number of field and laboratory courses in botany, ecology, entomology, marine biology, and vertebrate zoology. Courses and student research opportunities are available in biotechnology, experimental biology, and clinical laboratory science (medical technology). State-of-the-art facilities are available for graduate and undergraduate research in the W. M. Keck Cellular and Molecular Biology Laboratory and electron microscope facility.

The Department of Biological Sciences also participates in the Desert Studies Consortium and the Ocean Studies Institute. Information on the latter program is listed in this Catalog under Ocean Studies Institute.

## The Richard B. Loomis Research Award

This annual departmental award provides supply and travel support for thesis research projects. Graduate students submit research proposals to the Department's Graduate Studies Committee, which grants funding to the more meritorious proposals.

## Linda Warren Graham Medical Technology Scholarship

The Linda Warren Graham Medical Technology Scholarship is available to senior microbiology majors who have been accepted into a Clinical Laboratory Scientist (or a Medical Technology) Internship program. Scholarship applications can be obtained from the Biological Sciences Department Office during the month of March prior to graduation.

## Financial Support, Assistantships

The Department of Biological Sciences offers to graduate students a limited number of teaching associate and graduate assistant appointments. Forms requesting
consideration for these appointments are available in the Department Graduate Office. Duties consist of approximately 20 hours per week devoted to preparation and/or instruction in general undergraduate laboratory classes. These appointments are limited to a maximum of six semesters per individual.

The Department also has a limited number of technical assistant positions as well as some hourly employment. Several members of the faculty have grants that provide for research assistantships. A number of scholarships are available through the University.

## Graduate and Health Professional Preparation

In addition to preparing students for careers in teaching, industry, and government, the undergraduate programs in this Department provide preparation for advanced study at the graduate level and for entry into various health professional schools. Students should consider the degree requirements listed in the Catalog as minimal; some graduate schools, professional schools, or careers may require additional coursework in mathematics, physics, chemistry, or biological sciences.

Students desiring entrance into a graduate school to obtain a master's or doctoral degree in some area of the biological sciences should determine the entrance requirements for the school(s) of interest early in their undergraduate years. Specifically, students contemplating graduate work in mathematically oriented areas of the biological sciences should consider taking more calculus (MATH 122, 123, 224, and 364A or 370A will substitute for MATH 119A and 119B) and those contemplating graduate work in chemically oriented areas should consider taking additional chemistry (CHEM 251; 320A,B; 377A,B; 441A,B).

Students desiring entrance into one of the various health-related professional schools including chiropractic, dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, and veterinary, or to a graduate program in physical therapy, should consult with the Health Professions Advising Office in the College of Natural Sciences and Mathematics (FO5-109) for more information. Most of these schools do not require students to major in any particular discipline and many do not even require a bachelor's degree; rather, they want students who have done well in their major and who also took the prerequisite courses required by that particular school.

## Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Jensen Student Access to Sciences and Mathematics Center (FO5109) or Department Office for additional information.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Biology

This degree includes a general option in biology and six additional options for those desiring a more specialized program.

## Biology (code BIOLBS01) (120 units)

This degree major is designed for students pursuing careers that involve the study of life; it is especially appropriate for those contemplating graduate work in the biological sciences. This option gives the student a broad background involving coursework in most of the major areas of biology, without requiring specialization in any one particular field. Students in this option have more elective courses in their major than in the other, more specialized, options, which enables them to partially concentrate their studies in a particular area if they so choose. Because of this, students may not combine this option with any other in the B.S. in Biology nor with the B.S. in Marine Biology or Microbiology as part of a dual major. This option requires approximately 79-81 units in the major, of which 37-39 are in lower division and 42 are in upper division. All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100 A,B. BIOL 153, 200, 200L, 204, 205, 207, 208, MICR 101, and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 320A,B; at least 34 units in biological science including BIOL 340, 345, 345L, 350, 370; one of BIOL 313, 316, 324; one of BIOL 427, 439; and 12 additional units selected from upper division courses in the Department of Biological Sciences. At least two of the courses selected to fulfill these additional units must have numbers between 410-499. Either CHEM 441A,B or 448 will count toward these additional 12 units. Up to 6 of these additional units may be substituted from courses in other departments in the College of Natural Sciences and Mathematics upon approval by the undergraduate advisor. Students contemplating graduate work should consider taking 1-3 units of BIOL 496. BIOL 301, 303, 304, 306, 309I, MICR 300I, and NSCI 492 do not meet any specific or elective requirements for this major.

## Option in Biology Education (code BIOLBS02) (120 units)

This option is designed solely for students who wish to become secondary school Biology teachers. This option requires 80-92 units in the major, of which 48-52 are lower division and 32-40 are upper division. Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

Completion of the Biological Sciences Concentration meets the subject matter competence requirement for the Single Subject Preliminary Credential in Biology (code 184). In addition to meeting the subject matter competence
requirement for the Preliminary Credential, prospective Biology teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, as an undergraduate. Courses may also be started as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced. csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Biological Sciences Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

## Requirements

Lower Division: ASTR 100; BIOL 211A,B, 260; CHEM 111A,B; GEOL 102, 104, 160; MATH 119A or 122; MICR 200 or 211; and PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208, and MICR 101 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 327 or both 320A and B; SCED 404; and eight additional courses totaling 26-29 units in the biological sciences including BIOL 312, 340, 345, 350, 370; one of these three plant biology courses: BIOL 328, 439, 447; one of these three animal biology courses: BIOL 313, 316, 324. The remaining biological sciences course should be chosen in consultation with an advisor; BIOL 495/MICR 495 is highly recommended. Either CHEM 441A, B or 448 will count toward this additional required course. BIOL 301, 303, 304, 306, 309I, MICR 300I, and NSCI 492 do not meet any specific or elective requirements for this major.

Although SCED 403, EDSS 300C, and MICR 3001 are not required in the major, the credential does require these courses. Students may want to take some or all of them prior to graduation.

## Option in Botany (code BIOLBS03) (120 units)

This option is designed primarily for those interested in careers involving the biology of plants and is particularly appropriate for those contemplating graduate work in this field. This option requires approximately 78-80 units in the major, of which 37-39 are in lower division and 41 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208, MICR 101, and 200 do not meet any specific or elective requirements for this major.

Upper Division: 41 units including CHEM 320A,B; BIOL 340, 350, 370, 427, 439, 447, 450. Remaining 9 units selected in consultation with appropriate faculty advisor. CHEM 441 A,B or 448 will count toward these nine units. Students contemplating graduate work should consider taking 1-3 units of BIOL 496. BIOL 301, 303, 304, 306, 309I, MICR 300I, and NSCI 492 do not meet any specific or elective requirements for this major.

## Option in Cell and Molecular Biology (code BIOLBS04) (121 units)

This option is designed primarily for those interested in careers that involve biology at the cell and molecular levels and is particularly appropriate for those contemplating graduate work in these fields. This option requires 81-84 units in the major, of which 42-44 are in lower division and 39-40 are in upper division. Students in this option might also want to pursue the Certificate in Biotechnology described elsewhere in this catalog.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; MICR 211; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208, MICR 101, and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 320A,B, 441A,B; BIOL 340, 340L, 350, 370, 433; three courses selected from BIOL 443, 445, 447, 464, 465 or $467,473,477$, CHEM 547, MICR 430, 452. Students who contemplate graduate work are strongly encouraged to take, in addition, at least 2 units of BIOL 496. BIOL 301, 303, 304, 306, 309I, MICR 300I, and NSCI 492 do not meet any specific or elective requirements for this major.

## Option in Ecology (code BIOLBS05) ( 123 units)

This option is designed for students interested in careers involving the study of organisms in relation to their environment, either in private industry or government service, as well as those students contemplating graduate work in this field. This option requires approximately 83-92 units in the major, of which 41-43 are in lower division and 42-49 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; GEOL 102, 104 or 105; MATH 119A or 122, 119B or 123; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208; MICR 101 and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 320A,B or both CHEM 327 and 448; BIOL 312, 340, 345, 345L, 350, 370, 427; one of BIOL 313,316 or 324 ; four additional courses including one of these 10 in organismal diversity: BIOL 313, 316, 324, 411, $419,421,423,424,425,439$; one of these 10 in ecology and environmental science: BIOL 420, 422, 450, 451, 452, $453,454 \mathrm{~A}, 454 \mathrm{~B}, 455,457$; one of these four in quantitative
biology: BIOL 456, 463, 465, 467; and another course from any of the preceding three lists or BIOL 353, 355, 355L, 444, 459,464 ; GEOG 440, 473, 481; GEOL 339. With consent of the appropriate faculty advisor, 3 units of BIOL 496 is acceptable as this fourth additional course. BIOL 301, 303, 304, 306, 3091; MICR 300I; and NSCI 492 do not meet any specific or elective requirements for this major. Few, if any, health-related professional schools (e.g. veterinary medicine) will accept CHEM 327 instead of both 320A and 320B. Some graduate programs with masters or doctorates in biology and/or ecology may also not accept CHEM 327 instead of both 320A and 320B. CHEM 327 is not acceptable as a prerequisite for CHEM 441A. CHEM 327 is acceptable toward the Minor in Chemistry.

## Option in Physiology (code BIOLBS06) (120 units)

This option is designed primarily for those interested in careers involving the study of function in animals, especially humans, and is particularly appropriate for those contemplating graduate work in this field or entering one of the health professions, such as medicine and physical therapy. This option requires 77-81 units in the major, of which 37-39 are in lower division and 40-42 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208; MICR 101; and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 320A,B, 441A,B; BIOL 340, 350, 370. Two tracks exist for remaining upper division courses. Pre-physical therapy track: BIOL 341, 441, and either BIOL 332,433 , or HHS 401, plus six additional units selected from BIOL 345, 443, 444, 445, 447, 448, 449; HHS 471; MICR 430. General physiology track: BIOL 342, 342L or 345, 345L, and either BIOL 332 or 433 , plus nine additional units selected from BIOL 342, 345, 442, 443, 444, 445, 446, 447, 448, 449, 490; MICR 423, 430. Students contemplating graduate school should consider taking an additional 1-3 units of BIOL 496. BIOL 301, 303, 304, 306, 309I; MICR 300I; and NSCI 492 do not meet any specific or elective requirements for this major.

## Option in Zoology (code BIOLBS07) (123 units)

This option is designed primarily for those interested in careers that involve the biology of animals and is particularly appropriate for those contemplating graduate work in this field. This option requires approximately 83-86 units in the major, of which 41-44 are in lower division and 42 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; GEOL 102 and 104 or 105 or MICR 211; MATH 119A or 122, 119B or 123; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207,

208; MICR 101; and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 320A,B; BIOL 312, 324, 340, 345, 345L, 350, 370, 313 or 316 . At least one course selected from BIOL 313, 316, 411, 419, 421, 423, 424; and at least two additional courses in biological science totaling at least six units chosen in consultation with a faculty advisor. Either CHEM 441A,B or 448 will count toward these six units. Students contemplating graduate work should consider taking 1-3 units of BIOL 496. BIOL 301, 303, 304, 306, 309I, MICR 3001, and NSCI 492 do not meet any specific or elective requirements for this major.

## Bachelor of Science in Marine Biology (code BIOLBS08) (123 units)

Rocky shores, sandy beaches, tidal wetlands, kelp forests, and the open ocean coupled with the anthropogenic activities of a major urban area provide the seascape for our Bachelor of Science in Marine Biology. This degree is designed for students seeking positions in private industry and governmental agencies and is also appropriate for those considering graduate work in marine biology and ecology. The program takes ready advantage of the region's diverse habitats with a strong field orientation, supported by the R.V. Yellowfin, an 80' teaching and research vessel. Coincidental with this, environmental problems in the Southern California Bight provide another area for student interests.

This degree program requires approximately 83-91 units in the major, of which 40-42 are in lower division and 43-49 are in upper division. The number of units and particular blend of science and mathematics makes this a very challenging learning experience. However, the depth and strength of this degree provides a strong and flexible base to pursue a variety of careers. Obtaining a minor in another discipline, such as chemistry, microbiology, engineering, business, or computer science, may enhance one's marketability. All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division: BIOL 153, 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A,B. BIOL 200, 200L, 204, 205, 207, 208; MICR 101 and 200 do not meet any specific or elective requirements for this major.

Upper Division: CHEM 327 or both 320A and B; BIOL 313, $340,345,345 \mathrm{~L}, 350,353,370,419,425$; GEOL 465 and 466; a minimum of 6 units selected from the following ten courses in marine science: BIOL 411, 420, 428, 451, 454A, 449, 455, 464; BIOL/MICR 415, and, with permission of marine biology advisor, BIOL 490; select a minimum of 3 units from the following seven courses in methodology and techniques: BIOL 457, 463, 465, 467; GEOG 481; and, with consent of marine biology advisor, BIOL 496. BIOL 301, 303, 304, 306, 3091; MICR 300I; and NSCI 492 do not meet any specific or elective requirements for this major.

Few, if any, health-related professional schools (e.g. veterinary medicine) will accept CHEM 327 instead of both 320A and 320B. Some graduate programs with masters or doctorates in biology and/or marine biology may also not accept CHEM 327 instead of both 320A and 320B. CHEM 327 is not acceptable as a prerequisite for CHEM 441A. CHEM 327 is acceptable toward the Minor in Chemistry.

## Bachelor of Science in Microbiology (code BIOLBS09) (124 units)

Microbiology is the study of microorganisms and their interactions with humans, other organisms, and the environment. This degree, with the inclusion of appropriate classes, may be utilized by pre-professional students who are preparing for medical, dental, pharmacy, and veterinary school. A major in microbiology prepares students for a wide range of employment opportunities in clinical and public health fields, biotechnology, environmentally related fields, and industries concerning food, water quality, pharmaceuticals, and medical equipment and supplies. There is a core of courses for each of these varied educational and employment opportunities and specific programs can be arranged by counseling with microbiology advisors in the department. This undergraduate major is recognized by the American Society for Microbiology as meeting their core curriculum for the baccalaureate degree program in microbiology. This major requires 84-85 units, of which 3940 are in the lower division and 45 are in upper division. All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, 3. all courses in the major, and 4. all upper division courses in the major completed at CSULB.

Lower Division Requirements: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122; MICR 211; PHYS 100A,B. BIOL 153, 200, 200L, 204, 205, 207, 208; MICR 101 and 200 do not meet any specific or elective requirements for this major.

Upper Division Requirements: CHEM 320A,B, 441A,B; BIOL 340; MICR 320, 355, 371, 372, 430, 471; and a minimum of 11 additional elective units chosen from: BIOL 473, 477; MICR 320L, 322, 355L, 423, 429, 430L, 452, 473, 480, 490, 490L, 495, and 496. Those students seeking a career as a Clinical Laboratory Scientist/Medical Technologist are encouraged to take MICR 423, 430L, 320L, and 452. BIOL 301, 303, 304, 306, 309I; MICR 3001; and NSCI 492 do not meet any specific or elective requirements for this major.

## Bachelor of Science Degree with Honors in Biology, Marine Biology, or Microbiology

Students majoring in the B. S. in Biology (all options), B. S. in Marine Biology, or B. S. in Microbiology who would like an enriched academic program, including an intensive research experience, may be eligible to graduate with Honors in the Major through the University Honors Program. Students may also complete General Honors through the University Honors Program, in which case the General Honors thesis requirement is met through Honors in the Major (see University Honors in this Catalog).

Students interested in graduating with Honors in the Major should participate in a series of courses designed to introduce central concepts in biology (BIOL 110H), develop critical thinking and communication skills (special section of UHP 100), and introduce the newly emerging field of bioinformatics (BIOL 220H). In addition, they may join a learning community of students with similar interests and benefit from mentoring by faculty members.

This Honors in the Major program was created with the support of a grant from the Howard Hughes Medical Institute. Students admitted to Honors in the Major may be eligible
to receive monetary support from a variety of sources for completion of their honors research and thesis.

Students who have successfully completed the lower division Honors in the Major curriculum will receive priority for research fellowship support to the extent that it is available.

Additional details about this program, including availability of fellowship support, are available from the Honors in the Major Program Advisor.

## Requirements for Admission

1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B. S. in Biology (any option), B. S. in Marine Biology, or B. S. in Microbiology.
3. Completion of BIOL 211A,B, 260; CHEM 320A,B at time of entry with grades of at least "C" in each course. Students may apply during the semester in which they expect to complete these courses.
4. GPAs of at least 3.000 in all courses in the major and in all upper division courses in the major at the time of application.
5. Submission of an application describing the student's academic background, reasons for applying (including a description of any previous research experience), and willingness to commit to a year-long research experience.
6. Letter of recommendation from a CSULB faculty member familiar with the student's work and abilities.

## Requirements for Graduation

1. GPA of at least 3.300 in all upper division courses in the major and in Honors courses.
2. Completion of all requirements for the chosen degree in the Biological Sciences.
3. Completion of either BIOL 220 H or 477 .
4. Completion of BIOL 466H, Research Design and Methods - Honors (3 units).
5. Completion of 3 units of BIOL 496, Undergraduate Directed Research.
6. Completion of 3 units of BIOL 498H, Thesis - Honors.
7. Presentation of research results in a public forum. This requirement may be met by presentation at a scientific conference or at a local venue; consult the Program Advisor for additional information.
Substitutions to this program must be approved by the Honors in the Major Program Advisor.

## Minor in Biology (code BIOLUM01)

This minor may be combined with any major at CSULB except the B.S. in Biology (all options), B.S. in Microbiology, and B.S. in Marine Biology.

A minimum of 19 units is required for the minor.
Lower Division: BIOL 211A,B (211A requires CHEM 111A; 211B requires CHEM 111B.) BIOL 153, 200, 200L, 204, 205, 207, 208; MICR 101 and 200 do not meet any specific or elective requirements for this minor.

Upper Division: A minimum of nine units selected from upper division biology courses with at least one course selected from the 400 series. BIOL 301, 303, 304, 306, 309I, MICR 3001, 429, and NSCI 492 do not meet any specific or elective requirements for this minor.

## Minor in Physiology (code BIOLUM03)

This minor may be combined with any major at CSULB except the B.S. in Biology, Option in Physiology. BIOL 153, 200, 200L, 204, 205, 207, 208; MICR 101 and 200 do not meet any specific or elective requirements for this minor.

A minimum of 18 upper division units. Twelve of these 18 units must be selected from the following courses: BIOL $341,342,342 \mathrm{~L}, 345,345 \mathrm{~L}, 442,443,445,446,448,490$. The other six of these eighteen units must be selected from other courses in the above list or from BIOL 473; CHEM $441 A, B, 443$, or 448 . At least one of the upper division courses taken for this minor must have a laboratory. Most of these upper division courses require CHEM 111A,B and BIOL 211A, $B$ as prerequisites; some have other prerequisites in addition. BIOL 301, 303, 304, 306, 309I; MICR 3001; and NSCI 492 do not meet any specific or elective requirements for this minor.

## Minor in Microbiology (code BIOLUM04)

This minor may be combined with any major at CSULB except the B.S. in Microbiology. A minimum of 21 units which must include:

Lower Division: MICR 211. BIOL 153, 200, 200L, 204, $205,207,208$, MICR 101, and 200 do not meet any specific or elective requirements for this minor.

Upper Division: MICR 320, 430, and 452; plus a minimum of five units from the following: MICR 322, 371, 471, and 473. BIOL 301, 303, 304, 306, 309I, MICR 3001 , and NSCI 492 do not meet any specific or elective requirements for this minor.

## Certificate Program in Biomedical Art (code ART_CT01)

The Certificate Program in Biomedical Art is an interdisciplinary program sponsored by the Art and Biological Sciences Departments. Requirements for the certificate are listed in the Art section of this Catalog. Co-directors of the CSULB biomedical art program are in Art, Mr. Peter Mendez and in Biological Sciences, Dr. Kenneth Gregory. Questions may be addressed to them during office hours, which are listed in the respective departmental offices.

## Certificate in Biotechnology (code BIOLCT01)

Biotechnology is a rapidly growing field which encompasses many domains of science. Specifically, biotechnology refers to a process which ultimately yields a product. The products can be loosely subdivided into five categories; biological organisms with novel traits, DNAs, RNAs, proteins, and compounds. The Undergraduate Certificate in Biotechnology is the integrated use of specific offerings of the College of Natural Sciences and Mathematics, including the departments of Biological Sciences and Chemistry and Biochemistry. Laboratory facilities and selected courses will serve to provide a fundamental background in the theory and techniques of biotechnology. The certificate may be earned in conjunction with or subsequent to a baccalaureate degree. Courses offered for the certificate may be used to satisfy, as appropriate, major or minor requirements.

## Prerequisites for Admission

1. Completion of the following courses with a grade of " $C$ " or better (or consent of the biotechnology certificate program director): CHEM 111A,B; CHEM 320A,B; CHEM 441A,B; BIOL 340; BIOL 370; MICR 211. BIOL 153, 200, 200L, 204, 205, 207, 208, MICR 101, and 200 do not meet any specific or elective requirements for this certificate.

## Requirements

1. A baccalaureate degree (can be concurrent);
2. Completion of the program's prerequisite course requirements;
3. Approval by the program director;
4. Completion of the Core Curriculum: BIOL 477/577 (3); NSCI 492 (3); BIOL 473/573 (3); MICR 480/580 (1); Additional 3 units to be selected in consultation with the program director;
5. Completion of 3 units consisting of an approved research project in biotechnology to be taken from one or more of the following: BIOL 496; CHEM 496; or MICR 496 (undergraduate students); BIOL 697; CHEM 697; or MICR 697 (graduate students);
6. BIOL 301, 303, 304, 306, 309 and MICR 3001 do not meet any specific or elective requirements for this certificate.
7. Total Units Required for Certificate: 16-17 units.

## Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in a community or another college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for prior approval to enroll in specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be met. See 'Concurrent Enrollment' and 'Transfer of Undergraduate Credit' in this Catalog. Courses not receiving prior approval will not be accepted for credit by the department.

## GRADUATE PROGRAMS

## Master of Science in Biology (code BIOLMS01)

The available programs in this degree cover a wide spectrum of biology and include both laboratory and field study. This degree requires a thesis based on original scientific research; a list of research areas with the names of faculty specializing in these areas can be obtained from the Department's Graduate Office.

## Admission to the Department

## Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student stated previously in this Catalog under Graduate Degrees and Post Baccalaureate Studies, the Department of Biological Sciences requires:

1. A bachelor's degree in the biological or related sciences with minimum coursework similar to the lower division requirements of a degree program in the Department of

Biological Sciences, CSULB, including cell biology and statistics, ecology, and genetics (other undergraduate degrees will be considered by the Graduate Studies Committee);
2. An undergraduate grade point average in all completed science and mathematics courses of at least 2.70, or a grade point average of at least 3.00 in the last 40 semester ( 60 quarter) units of science and mathematics courses completed; and
3. The Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology, which must have been taken prior to applying to the Department. Most students who apply with a score less than the 50th percentile on this test will be denied admittance to the Department. The GRE Subject Test must have been taken within five years prior to the intended admission date.
A student who does not meet these minimum entrance prerequisites must obtain a faculty sponsor in order to be considered for admittance.

## Application

Prospective graduate students in M.S. in Biology, including CSULB graduates, must formally apply for admission to CSULB as described previously in this Catalog and must also apply directly to the Department of Biological Sciences. All applicants must submit the following documents directly to the Department no later than 15 March for the fall semester or 15 October for the spring semester to receive consideration for admission:

1. Departmental Application Form, available from the Department's Graduate Office;
2. Official transcripts of all college level academic work including that done at CSULB (these are in addition to those transcripts required for general graduate admission to CSULB);
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential (if applying for a teaching associate position, the letters must refer to the applicant's potential to teach laboratory sections in the biological sciences); and
4. Official report of scores on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. The applicant should have taken this examination well prior to applying to the Department, because the official score must reach the Department by the deadlines above.
These materials must be submitted to the Department's Graduate Office.

## Review by the Graduate Studies Committee

The Graduate Studies Committee will review all folders completed by the deadlines and either accept the applicant as a Classified or Conditionally Classified graduate student or deny admission. Acceptance is competitive and the GPA, the GRE Subject Test score, and the letters of recommendation will be weighed in the decision to accept or reject an applicant. All accepted students must contact the Departmental Graduate Advisor prior to their initial semester for counsel and orientation.

## Admission to the Department of Biological Sciences as a Classified Graduate Student

The Department of Biological Sciences may admit as a Classified graduate student any applicant who:

1. has met all prerequisites,
2. has a complete folder of all required documents, and
3. has obtained acceptance by a faculty member as the Chair of the student's Thesis Committee. The student and faculty should then set up a program (see "The Program of Study", below).

## Admission to the Department of Biological Sciences as a Conditionally Classified Graduate Student

An applicant who fails to meet the criteria above for Classified admission to the Department and who falls into one of the following four categories may be considered by the Graduate Studies Committee for admission as Conditionally Classified graduate student:

1. An applicant with course and/or unit deficiencies. The Graduate Studies Committee will determine what deficiencies each applicant has and indicate on the back of the Department Application Form which course(s) the applicant must take to make up those deficiencies. These courses are in addition to the minimum 30 units on the student's Program of Study (see below). The applicant must make up all such deficiencies before attaining Classified status;
2. An applicant with GPA deficiencies. An applicant with a undergraduate GPA in science and math courses between 2.50 and 2.75 and a GPA in the last 40 semester ( 60 quarter) units of science and math courses between 2.75 and 3.00 may secure admission as a Conditionally Classified graduate student. The applicant must first obtain sponsorship from a Department of Biological Sciences faculty member; this faculty member must indicate in writing to the Graduate Studies Committee willingness to serve as the Chair of the applicant's thesis committee and the reasons why the Graduate Studies Committee should admit the applicant. Thus, an applicant with low GPA must contact potential thesis advisors before the Graduate Studies Committee can consider the application. In addition, an applicant receiving the Conditionally Classified status must complete, with a grade of "A" or "B", three approved courses totaling at least nine units acceptable to the Graduate Studies Committee and the Department Chair before attaining Classified status. These approved courses may appear on the student's Graduate Program of Study. If the applicant receives less than a "B" in any of the three courses, the applicant will be dropped from the M.S. in Biology program. An applicant who fails to meet the GPA criteria for normal, Classified admission, and has an undergraduate GPA in science and mathematics courses of less than 2.50 and a GPA in the last 40 semester ( 60 quarter) units of science and mathematics courses of less than 2.75 is not eligible for admission to the M.S. in Biology degree program;
3. An applicant who has scored below the 50th percentile on the GRE Subject Test; and
4. An applicant who meets all prerequisites but who does not yet have a Chair for the Thesis Committee. It is the responsibility of the student to obtain a Chair and set up
a proposed graduate program by the end of the second semester in residence following admission to the Master of Science program or they will be dropped from the program.

## The Program of Study

After admission to the Department as a Classified or Conditionally Classified graduate student, the student in consultation with the Thesis Chair, must establish a Program of Study that includes a program of classes and a thesis proposal. The student and Thesis Committee Chair will select at least two additional members to serve on the student's Thesis Committee. The Departmental Graduate Advisor serves as an ex-officio member of all thesis committees. Each student must prepare a written thesis proposal for approval by the student's Thesis Committee. The Thesis Committee will meet with the student to determine what courses the student must take and indicate them on the M.S. in Biology Graduate Program Form.

The Program of Study must include six units of Thesis (BIOL 698), one to three units of Directed Research (BIOL 697), one unit of Seminar (MICR 580 or BIOL 580), BIOL 696, and four units from BIOL 661, 663, 664, 665, 666; MICR 661; or CHEM 595A; BIOL 661-666 and MICR 661 topics must be different. Of the minimum 30 units, no more than six may come from BIOL 661-666, and CHEM 595A; no more than six may come from transfer credit; and no more than one 300level course may be included.

The Program of Study must be established before the end of the second semester after admission to the Department; in addition, the Graduation Writing Assessment Requirement (GWAR) must be fulfilled and a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or in Biochemistry, Cell, and Molecular Biology must be achieved by this time. Failure to meet these requirements will result in dismissal from the Department's M.S. in Biology program.

## Advancement to Candidacy

In addition to the general University requirements stated previously under Post-Baccalaureate and Graduate Degrees in this Catalog, the student must complete the following steps before receiving Candidate status in the Department of Biological Sciences:

1. Admission to the Department of Biological Sciences Master's Degree program as a Classified graduate student (see above);
2. Achievement of a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. This requirement must be met by the end of the second semester in residence. Normally, students not meeting this requirement will be dropped from the program. Only in cases where English is not the student's native language or if a disability impedes the student's performance, may an alternative be petitioned. In these cases, the Chair of her/his Thesis Committee must petition, in writing, the Graduate Studies Committee to provide an alternate method for meeting this requirement. This petition must provide full documentation of the student's progress to date, professional promise, and a schedule for meeting all degree requirements. If granted, the alternate method will consist of an exam, oral and/or written, in which the
student must demonstrate extensive knowledge of the major areas of biology. The exam committee will consist of the Department Graduate Advisor and three faculty members selected by the Graduate Studies Committee. No member of the student's Thesis Committee may serve on this committee; and
3. Establishment of a Thesis Committee and Program of Study (see above). Upon evidence of satisfactory academic progress and satisfactory fulfillment of the Graduation Writing Assessment Requirement (GWAR), the Thesis Committee will recommend the student for advancement to candidacy by forwarding its recommendation to the Department Graduate Advisor. This should occur at least one year before graduation. Upon approval by the Associate Dean for Graduate Accountability, the student will attain the status of Classified graduate standing.

## Requirements for Master of Science in Biology

In addition to the general University requirements stated previously in this catalog, the student must meet the following requirements before receiving the degree of Master of Science in Biology.

1. Advancement to candidacy (see above);
2. Maintenance of a 3.00 ("B" average), or better, overall graduate grade-point average (includes all upper-division and graduate level courses taken since admission to this University and after completion of the baccalaureate degree) and graduate program GPA. If either GPA falls below 3.00 , it must be elevated to a 3.00 at the end of the following semester or the student will be dropped from the M.S. in Biology program;
3. Completion of a written thesis and an oral defense of this thesis, followed by a public presentation of the thesis research. The members of the candidate's Thesis Committee must have approved the thesis and the defense before a student may schedule the public presentation. The student may not defend the thesis or give a public presentation during the summer term; and
4. Serve as a teaching associate or graduate assistant. Under some circumstances, this requirement may be waived. Requests to graduate must be received by Enrollment Services approximately 6 months in advance of the expected graduation date (check the Schedule of Classes for the date).

These requirements must be completed within 6 years from when the first course on the Program of Study was completed, including academic leaves, or the student's degree program will be terminated.

## Master of Science in Microbiology (code BIOLMS02)

This degree is available to qualified students preparing for professional careers in industry and government and for further studies at the doctoral level. In addition, a Master's degree in Microbiology, combined with appropriate courses in education, can be utilized for a community college teaching credential.

## Admission to the Department Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student stated previously in this Catalog under Graduate Degrees and Post Baccalaureate Studies, the

Department of Biological Sciences requires:

1. A bachelor's degree or its equivalent with course work in microbiology, cell biology, and biochemistry appropriate for a science major and obtained from an accredited institution;
2. An undergraduate grade point average in all completed science and mathematics courses of at least 2.70, or a grade point average of at least 3.00 in the last 40 semester (60 quarter) units of science and mathematics courses completed; and
3. A score at or above the $50^{\text {th }}$ percentile on the Graduate Record Examination (GRE) Subject test (in either Biology or in Biochemistry, Cell and Molecular Biology) taken within 5 years prior to the intended admission date.
An applicant who does not meet the above requirements may be admitted as a conditionally classified graduate student as explained below.

## Application

Prospective graduate students in M.S. in Microbiology, including CSULB graduates, must formally apply for admission to CSULB as described previously in this Catalog and must also apply directly to the Department of Biological Sciences. All applicants must submit the following documents directly to the Department no later than 15 March for the fall semester or 15 October for the spring semester to receive consideration for admission:

1. Departmental Application Form, available from the Department's Graduate Office;
2. Official transcripts of all college level academic work including that done at CSULB; these are in addition to those transcripts required for general graduate admission to CSULB;
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential (if applying for a teaching associate position, the letters must refer to the applicant's potential to teach laboratory sections in the biological sciences); and
4. Official report of scores on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. The applicant should have taken this examination well prior to applying to the Department, because the official score must reach the Department by the deadlines above.
These materials must be submitted to the Department's Graduate Office.

## Review by the Graduate Studies Committee

The Graduate Studies Committee will review all folders completed by the deadlines and either accept the applicant as a Classified or Conditionally Classified graduate student or deny admission. Acceptance is competitive and the GPA, the GRE Subject Test score, and the letters of recommendation will be weighed in the decision to accept or reject an applicant. All accepted students must contact the Graduate Advisor prior to their initial semester for counsel and orientation.

## Admission to the Department of Biological Sciences as a Classified Graduate Student

The Department of Biological Sciences will admit as a Classified graduate student any applicant who:

1. has met all prerequisites;
2. has a complete folder of all required documents; and
3. has obtained acceptance by a faculty member as the Chair of the student's Thesis Committee. The student and faculty should then set up a program (see "The Program of Study," below).

## Admission to the Department of Biological Sciences as a Conditionally Classified Graduate Student

An applicant who fails to meet the criteria above for Classified admission to the Department and who falls into one of the following three categories may be considered by the Graduate Studies Committee for admission as Conditionally Classified graduate student:

1. An applicant with course and/or unit deficiencies. The Graduate Studies Committee will determine what deficiencies each applicant has and indicate on the back of the Department Application Form which course(s) the applicant must take to make up those deficiencies. These courses are in addition to the minimum 30 units on the student's Program of Study (see below). The applicant must make up all such deficiencies before attaining Classified status;
2. An applicant with GPA deficiencies. An applicant with an undergraduate GPA in science and mathematics courses between 2.50 and 2.75 and a GPA in the last 40 semester ( 60 quarter) units of science and mathematics courses between 2.75 and 3.00 may secure admission as a Conditionally Classified graduate student. The applicant must first obtain sponsorship from a Department of Biological Sciences faculty member; this faculty member must indicate in writing to the Graduate Studies Committee willingness to serve as the Chair of the applicant's thesis committee and the reasons why the Graduate Studies Committee should admit the applicant. Thus, applicants with a low GPA must contact potential thesis advisors before the Graduate Studies Committee can consider the application. In addition, an applicant receiving the Conditionally Classified status must complete, with a grade of "A" or "B," three approved courses totaling at least nine units acceptable to the Graduate Studies Committee and the Department Chair before attaining Classified status. These approved courses may appear on the student's Graduate Program of Study. If the applicant receives less than a "B" in any of the three courses, the applicant will be dropped from the M.S. in Microbiology program. An applicant who fails to meet the GPA criteria for normal, Classified admission and has either an undergraduate GPA in science and mathematics courses of less than 2.50 or a GPA in the last 40 semester ( 60 quarter) units of science and mathematics courses of less than 2.75 is not eligible for admission to the M.S. in Microbiology degree program.
3. An applicant who has scored below the 50th percentile on the GRE Subject Test; and
4. An applicant who meets all prerequisites but who does not yet have a Chair for the Thesis Committee. It is the responsibility of the student to obtain a Chair and set up a proposed graduate program by the end of the second semester in residence following admission to the Master of Science program or they will be dropped from the program.

## The Program of Study

After admission to the Department as a Classified or Conditionally Classified graduate student, the student, in consultation with the Thesis Chair, must establish a Program of Study that includes the program of classes and a thesis proposal. The student and Thesis Committee Chair will select at least two additional members to serve on the student's Thesis Committee. The Departmental Graduate Advisor serves as an ex-officio member of all thesis committees. Each student must prepare a written thesis proposal for approval by the student's Thesis Committee. The Thesis Committee will meet with the student to determine what courses the student must take and indicate them on the M.S. in Microbiology Graduate Program Form.

The Program of Study will include the completion of a minimum of 30 semester units. At least 20 of these units must be in the 500-600 level courses of which a minimum of 16 units must be in the Microbiology 500-600 series. Required courses, if not taken previously, include: MICR 371 or an upper division/graduate course in genetics; MICR 471 or an upper division/graduate course in cell physiology; MICR 661 (two enrollments with different topics for a total of 4 units is required); BIOL 696, MICR 697 (maximum of 3 units); and MICR 698 (6 units). Other elective units included in the graduate program must be 400-600 level courses acceptable to the University and microbiology degree program. No 300 -level courses may be included.

The Program of Study must be established before the end of the second semester after admission to the Department; in addition, the Graduation Writing Assessment Requirement (GWAR) must be fulfilled and a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or in Biochemistry, Cell, and Molecular Biology must be achieved by this time. Failure to meet these requirements will result in dismissal from the Department's M.S. in Microbiology program.

## Advancement to Candidacy

In addition to the general University requirements stated previously under Post-Baccalaureate and Graduate Degrees in this Catalog, the student must complete the following steps before receiving Candidate status in the Department of Biological Sciences:

1. Admission to the Department of Biological Sciences Master's Degree program as a Classified graduate student (see above);
2. Achievement of a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. This requirement must be met by the end of the second semester in residence. Normally, students not meeting this requirement will be dropped from the program. Only in cases where English is not
the student's native language or if a disability impedes the student's performance may an alternative be petitioned. In these cases, the Chair of her/his Thesis Committee must petition, in writing, the Graduate Studies Committee to provide an alternate method for meeting this requirement. This petition must provide full documentation of the student's progress to date, professional promise, and a schedule for meeting all degree requirements. If granted, the alternate method will consist of an exam, oral and/or written, in which the student must demonstrate extensive knowledge of the subject areas covered in the appropriate GRE Subject Test. The exam committee will consist of the Department Graduate Advisor and three faculty members selected by the Graduate Studies Committee. No member of the student's Thesis Committee may serve on this committee; and
3. Establishment of a Thesis Committee and Program of Study (see above). Upon evidence of satisfactory progress and saisfactory fulfillment of the Graduation Writing Assessment Requirement (GWAR), the Thesis Committee may recommend the student for advancement to candidacy by forwarding its recommendation to the Department Graduate Advisor, Department Chair, and Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics. This should occur at least one year before graduation. Upon approval by the Associate Dean, the student will attain the status of Classified graduate standing.

## Requirements for the Master of Science in Microbiology

In addition to the general University requirements stated previously in this catalog, the student must meet the following requirements before receiving the degree of Master of Science in Microbiology.

1. Advancement to candidacy (see above);
2. Maintenance of a 3.00 ("B" average), or better, overall graduate grade point average (includes all upper-division and graduate level courses taken since admission to this University and after completion of the baccalaureate degree) and graduate program GPA. If either GPA falls below 3.00 , it must be elevated to a 3.00 at the end of the following semester or the student will be dropped from the M.S. in Microbiology program;
3. Completion of a written thesis and an oral defense of this thesis, followed by a public presentation of the thesis research. The members of the candidate's Thesis Committee must have approved the thesis and the defense before a student may schedule the public presentation. The student may not defend the thesis or give a public presentation during the summer term; and
4. Serve as a teaching associate or graduate assistant. Under some circumstances, this requirement may be waived.
Requests to graduate must be received by Enrollment Services approximately 6 months in advance of the expected graduation date (check the Schedule of Classes for the date).

These requirements must be completed within 6 years from when the first course on the Program of Study was completed, including academic leaves, or the student's degree program will be terminated.

## Biology Courses (BIOL)

Students pursuing a major and/or a minor in this Department may receive unit credit for courses marked with the symbol '\#\#' as a general elective but may not apply the units toward the specific or elective requirements for any degree or option in this Department. Majors in this department may, however, take, for general education purposes, interdisciplinary courses offered by this Department. All other courses in this Department are open to majors and minors but by letter grade only (A-F). Courses with an asterisk may be used in graduate programs.

## LOWER DIVISION

## 100.\#\# Biology of the Human Environment (3) F,S

Prerequisites: Completion of or concurrent enrollment in a course that fulfills one of the Foundation requirements in GE.
Biological perspective on the interaction between humans and their environment. Specifically designed for non-science majors.
(Lecture 3 hrs.)

## 110H. Ideas in the Biological Sciences - Honors (1)

Prerequisites: Consent of instructor.
Examination of the biological and biochemical sciences. Readings and discussions will familiarize participants with advances in biological sciences. Historical context, importance, and scientific and social consequences of these discoveries will be examined. Research faculty in Biological Sciences and Chemistry/ Biochemistry introduced.
Letter grade only (A-F). (Discussion 1 hr.)

## 153. Introduction to Marine Biology (3) F,S

Prerequisites: Completion of or concurrent enrollment in courses that fulfill the A. 1 and B. 2 GE requirements.
Scientific approach to the study of marine organisms and their relationships to the environment. Emphasis on human interaction with marine ecosystems. (Lecture 2 hrs., laboratory and field 3 hrs.) Field trips may be required outside of scheduled class time.
Not open for credit to students with credit in BIOL 201. Course fee may be required.

## 200.\#\# General Biology (4) F,S

Prerequisite: Completion of GE Foundation requirements.
Brief survey of major areas of biology including cell biology, genetics, evolution, phylogeny, plant and animal anatomy and physiology, ecology, and behavior. Specially designed for nonscience majors.
(Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.
200L.\#\# General Biology Laboratory (1) F,S
Prerequisites: Completion at another institution of coursework deemed equivalent to the lecture component only of BIOL 200 and consent of Department. BIOL 200L is identical to the laboratory component of BIOL 200.
Students enrolled in BIOL 200L will take it in the same room and at the same time as students enrolled in BIOL 200.
Not open for credit to students with credit in BIOL 200. (Laboratory 3 hrs .) Course fee may be required.

## 204.\#\# Essentials of Pharmacology (2) F,S

Prerequisites: BIOL 207.
Systematic study of drugs, their classification, methods and routes of administration, therapeutic and toxic effects with emphasis on nursing implications.
Not designed for majors in the College of Natural Sciences and Mathematics. Not open to students with a "C" or better in A/P 206. Priority registration given to students who have been accepted into the B.S. in Nursing. (Lecture 2 hrs .)

## 205.\#\# Human Biology (4) F,S

Prerequisites: Completion of GE Foundation requirements. Brief survey of human biology focusing on anatomy, physiology, and development of cells, tissues, organs, and organ systems; including molecular biology, genetics, ecology, evolution, and diversity. Specially designed for non-science majors.
Not open for credit to students with credit in A/P 107 or 205. (Lecture 3 hrs., laboratory 3 hrs .) Course fee may be required.

## 207.\#\# Human Physiology (4) F,S

Prerequisites: Completion of GE Foundation requirements.
General introduction to the functional integration of human body systems. Designed for majors in biomedical engineering, physical education, and the allied health fields.
Not open for credit to students with credit in A/P 207 or 209. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required. (CAN BIOL 12)

## 208.\#\# Human Anatomy (4) F,S

Prerequisites: Completion of the GE Foundation requirements. Gross anatomy, histology, and neuroanatomy of the human body. Designed for majors in physical education and allied health fields.
Not open for credit to students with credit in A/P 208 or 202.
(Lecture 3 hrs ., laboratory 3 hrs .) Course fee may be required.

## 211A. Biological Sciences I (5) F,S

Prerequisite: CHEM 111A with a grade of "C" or better and completion of GE Foundation requirements. Prerequisite or corequisite: CHEM 111B.
Introduction to cellular and molecular principles common to life forms including biological macromolecules, cell structure, metabolism, genetics, and molecular biology. Also includes microbiology of prokaryotes and the origin of life.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required. (BIOL 211A+211B, CAN BIOL SEQ A.)
211B. Biological Sciences II (5) F,S
Prerequisites: BIOL 211A, CHEM 111B with a grade of "C" or better.
Second of a two-semester introductory sequence for biological science majors. Introduction to organismal biology: diversity, structure, evolution, and ecology of and function of prokaryotes, protists, fungi, plants, and animals.
Letter grade only (A-F). (Lecture 3 hrs, laboratory 6 hrs.) Course fee may be required. (BIOL 211A+211B, CAN BIOL SEQ A)

## 211C. Biological Sciences Laboratory I (2) F,S

Prerequisites: Completion at another accredited institution of coursework equivalent to the lecture component only of BIOL 211A and consent of Department. BIOL 211C is identical to the laboratory component of BIOL 211A.
Students enrolled in BIOL 211C will take it in the same room and at the same time as students enrolled in BIOL 211A.
Not open for credit to students with credit in BIOL 211A. Letter grade only (A-F).(Laboratory 6 hrs .) Course fee may be required.

## 211D. Biological Sciences Laboratory II (2) F,S

Prerequisites: Completion at another accredited institution of coursework equivalent to the lecture component only of BIOL 211B and consent of Department. BIOL 211D is identical to the laboratory component of BIOL 211B.
Students enrolled in BIOL 211D will take it in the same room and at the same time as students enrolled in BIOL 211B.
Not open for credit to students with credit in BIOL 211B. Letter grade only (A-F). (Laboratory 6 hrs .) Course fee may be required.

## 220H. Fundamentals of Bioinformatics - Honors (2)

Prerequisites: BIOL 211A and consent of instructor.
Introduction of scope and use of biological information, molecular structure, and literature databases. Basic comparison methods of DNA and protein sequences including sequence alignment, analysis of 3-D structures, and phylogenetic analysis. Fundamentals of DNA sequencing and genetic survey techniques included.
Course fee may be required. Letter grade only (A-F). (Lecture 1 hr., laboratory 3 hrs.)

## 260. Biostatistics (3)

Prerequisites: BIOL 211A or BIOL 207 or MICR 200; MATH 112 or 117 or 119A or 122.
Probability and statistics used in the description and analysis of biological data.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

## UPPER DIVISION

## 301.\#\# Biology of Human Aging (3)

Prerequisites: BIOL 200 or 205 or 207.
Biological processes associated with aging in humans. Emphasis on both cellular and organ aging.
Specifically designed for the gerontology program. Not open to students with "C" or better in A/P or BIOL 401. (Lecture 3 hrs.)

## 303.\#\# Coastal Systems and Human Impacts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; BIOL 153 or 200 or 211B; GEOL 102 or 160.
Defines and describes natural processes impacting human activities in the coastal zone and how human practices influence natural processes. Topics include global warming, sea level rise, El Nino, port development, ocean outfalls and water quality, fisheries, and coastal erosion.

Same course as GEOL 303. Letter grade only (A-F). (Lecture 3 hrs .)

## 304.\#\# Pathophysiology (3) F,S

Prerequisites: BIOL 207, 208; CHEM 140; MICR 200.
Pathogenesis and pathophysiology of common disorders of human nervous, musculoskeletal, endocrine, cardiovascular, respiratory, excretory, digestive, and reproductive systems with emphasis on the physiological basis of the disease process and clinical correlations.
Not designed for majors in the College of Natural Sciences and Mathematics. Not open to students with a "C" or better in A/P 305. Priority registration given to students who have been accepted into the B.S. in Nursing. (Lecture 3 hrs .)

## 306.\#\# Human Prosection (3) F, odd years

Prerequisites: BIOL 208 or 332 and consent of instructor.
Detailed regional dissection of the human body with emphasis on dissection techniques.
Not open for credit to students with credit in A/P 306 or 336. Letter grade only (A-F). (Lecture 1 hr., laboratory 6 hrs.) Course fee may be required.

## 3091.\#\# Human Body and Mind (3) S

Prerequisites: Completion of the GE Foundation, the B.1.a. requirement in GE (life science with laboratory), and upper-division standing.
Facilitates understanding of human being as integrated physiological and psychological entity. Explains aspects of human body function, analyzes interaction in physiological and psychological terms and examines results of scientific research supporting concept of mind-body connections.
Not open for credit to students with credit in A/P 308I. (Lecture 3 hrs.)

## 312. Evolutionary Biology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better, 260.
Survey of evolutionary biology including population genetics, speciation, origin of life, and phylogenetic analysis. Main emphasis is evolutionary mechanisms and methods of analysis on specific of the evolutionary history of life.
Letter grade only (A-F). (Lecture 3 hrs .)

## 313. Invertebrate Zoology (4) F

Prerequisites: BIOL 211A,B with grade of "C" or better.
Systematics, morphology, and natural history of invertebrate animals, with emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.; weekend field trips may be required.) Course fee may be required.

## 316. General Entomology (4) F,S

Prerequisites: BIOL 211A,B with grade of "C" or better.
Characteristics, structure, habits, and life cycles of insects; importance of insects to humans and other organisms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

## 324. Vertebrate Zoology (4) F,S

Prerequisites: BIOL 211A,B with grade of " $C$ " or better.
Phylogenetic survey of vertebrates (craniates). Lecture concentrates on origin and radiation of vertebrates and their functional morphology. Laboratory concentrates on skeletal and internal anatomy and taxonomy to the ordinal and familial level of living vertebrates.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

## 328. Plants and Human Affairs (3)

Prerequisites: BIOL 211A,B with grade of "C" or better.
Economic and social role of plants and plant products in our civilization from a botanical perspective. Emphasis on the origins, methods of processing and uses of plants.
Letter grade only (A-F). (Lecture 3 hrs .)

## 332. Comparative Vertebrate Morphology (4)

Prerequisites: BIOL 211A,B with grade of "C" or better.
Evolutionary history of vertebrate structure. Lecture emphasizes gross adult structure and embryonic origin and microanatomy. Laboratory focuses on comparative anatomy of shark, salamander, and mammal.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

## 340. Molecular Cell Biology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better; CHEM 320A or 327.

Detailed study of the organization and functioning of cells and cellular organelles at the molecular level; emphasis on experimental approaches and structural/functional relationships. Letter grade only (A-F). (Lecture 3 hrs.)
*340L. Molecular Cell Biology Laboratory (3) F
Prerequisites: BIOL 340, 370, both with a grade of "C" or better. (Preference given to students in the Bachelor of Science in Biology, Option in Cell and Molecular Biology.)
Extensive experience in modern laboratory techniques used in cell and molecular biology. Topics include genomics, subcellular structure and transport, and purification and functional characterization of recombinant proteins.
Letter grade only (A-F). (Lecture 1 hr ., laboratory 6 hrs.) Course fee may be required.

## 341. Physiology for Therapists I (4) F,S

Prerequisites: BIOL 211A,B; CHEM 111A,B; PHYS 100A,B; 100
hours of documented exposure to the practice of physical therapy in a variety of settings; and consent of instructor.
Mechanisms of action and interaction of physiological body systems with emphasis on nervous and endocrine systems and skeletal and smooth muscle. Pathological and clinical considerations presented.
Not open for credit to students with credit in A/P 341 or 307. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 342. Mammalian Physiology (3) F,S

Prerequisites: BIOL 211A,B with a grade of " C " or better. Recommended: PHYS 100A,B.
Function of various mammalian body systems, primarily of humans. Emphasis on integration of homeostatic mechanisms of nervous, muscular, endocrine, cardiovascular, respiratory, renal, digestive, and reproductive systems.
Not open for credit to students with credit in A/P 342. Letter grade only (A-F). (Lecture 3 hrs.)

## 342L. Laboratory in Physiology (1) F,S

Prerequisites: BIOL 342 (may be taken concurrently.)
Experiments and exercises designed to provide experience in, and illustration of, physiological principles and mechanisms of interaction among various body systems.
Not open for credit to students with credit in A/P 342L. Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required.

## *345. Comparative Animal Physiology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better.
Comparison of fundamental physiological processes of major animal phyla.
Not open for credit to students with credit in A/P 340. Letter grade only (A-F). (Lecture 3 hrs.)
*345L. Laboratory in Comparative Animal Physiology (1) F,S
Prerequisites: BIOL 345 (may be taken concurrently.)
Laboratory course acquaints students with direct observation and measurement of physiological processes in various animal groups, both invertebrate and vertebrate.
Not open for credit to students with credit in A/P 340L. Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required

## 350. General Ecology (3) F,S

Prerequisite: BIOL 211A,B with grade of "C" or better, 260; MATH 112 or 117 or 119A or 122.
Chemistry and physics recommended. Relationships of plants and animals to their physical and biological environment; structure and function of populations, communities and ecosystems.
Letter grade only (A-F). (Lecture 3 hrs., and two required Saturday field trips.)

## 353. Marine Biology (3) F

Prerequisites: BIOL 153, both 211A,B with grade of "C" or better, and 260.
Study of pelagic and benthic marine ecosystems, including food resources, mariculture, and pollution. Weekend field trips may be required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

## 355. Microbial Ecology (3) S

Prerequisites: MICR 211 or BIOL 211B with a grade of "C" or better.
Explores relationships of microorganisms to their environment. Emphasis placed on ecological basis for diversity of prokaryotic forms, metabolic functions and community interactions.
Same course as MICR 355. Letter grade only (A-F). (Lecture 3 hrs.)

## 355L. Microbial Ecology Laboratory (1) S

Prerequisite or corequisite: MICR 355.
Provides an understanding of microbes in the environment.
Sample and analyze microbes from field trips to different habitats. Analytical techniques learned include enrichment culture methods and modern molecular biology methods to study the diversity and community dynamics of microbes.
Same course as MICR 355L. Letter grade only (A-F). (Laboratory 3 hrs.)

## 370. General Genetics (4) F,S

Prerequisites: BIOL 211A,B with grades of " C " or better and either BIOL 260 or CHEM 441B.
Detailed study of classical transmission genetics and introduction to modern molecular genetics. Includes current observations and concepts of nature, organization, function, and regulation of genetic expression.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 411./511. Marine Mammalogy (3) S, odd years

Prerequisites: BIOL 153 or 353 , BIOL 345, 350, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 411; graduates enroll in BIOL 511.)
Fundamental biological, ecological, and physiological concepts of marine mammals, including cetaceans, pinnipeds, walruses, sirenians, and polar bears. Information concerning taxonomy, distribution, morphology, physiology, reproduction, and feeding through readings and scientific literature. Fieldtrips may include weekends and spring recess.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and fieldtrips 3 hrs.)

## 415./515. Marine Microbiology (3) F, odd years

Prerequisites: BIOL 353 or MICR 355 with a grade of "C" or better. (Undergraduates enroll in BIOL 415; graduates enroll in BIOL 515.)
Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.
Same course as MICR 415. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)
*419. Ichthyology (3) F
Prerequisites: BIOL 211A,B, 260, and at least six additional units of upper division biological science, all with a grade of " $C$ " or better. Recommended: BIOL 350, 353, and 370.
Systematics, morphology, genetics, and ecology of fishes. Emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., weekend field trips may be required.) Course fee may be required.
420./520. Fisheries Ecology and Conservation (3) F

Prerequisites: BIOL 260, 350, and 419. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.)
Advanced aspects of fish and invertebrate biology and behavior; fisheries economics and conservation; emphasis on state-of-art field/laboratory techniques and contemporary concepts and their application in fishery management.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

## *421. Herpetology (3) S, odd years

Prerequisites: BIOL 211A,B, 260, with grades of " $C$ " or better, and eight units of upper division biology.
Taxonomy, natural history, ecology and distribution of amphibians and reptiles, emphasis on local forms. Weekend field trip required. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

## 422./522. Methods in Avian Ecology and Conservation (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 422; graduates enroll in BIOL 522.)
Research methods (population density estimation, biacoustics, phylogenetic methods, zonation of protected areas to reduce human disturbance, etc.) used in avian ecology and conservation, including the use of the ornithology museum as a research and educational resource.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.)
*423. Mammalogy (3) F, even years
Prerequisites: BIOL 260, either 324 or 332 , and one of 312,350 , all with grades of "C" or better.
Phylogenetic survey world's living mammals. Lecture emphasizes radiation of orders; families; their morphology, physiology, and behavior laboratory emphasizes external and skeletal morphology of these same taxa and identification of California species.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 424./524. Ornithology (3) S

Prerequisites: BIOL 211A,B, BIOL 260, and three units of upper division BIOL. Recommended: BIOL 350. (Undergraduates enroll in BIOL 424; graduates enroll in BIOL 524.)
Ecology, morphology, physiology, behavior, and taxonomy of birds from an evolutionary perspective, also factors influencing recent increase in their extinction risk. Species identification techniques (emphasis on the local avifauna) and methods of surveying avian populations.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.) Course fee may be required.
*425. Phycology (3) F
Prerequisites: BIOL 153, 211A,B with a grade of "C" or better.
Taxonomy, phylogeny, and physiology of algae, including physiological ecology of marine macroalgae; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.
*427. Taxonomy of Vascular Plants (4) S
Prerequisite: BIOL 211A, B with grade of " $C$ " or better.
Principles and methods of vascular plant systematics, including history, nomenclature, and phylogeny; laboratory emphasis is on the identification and classification of native and introduced plants of Southern California.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

## 428./528. Biology of the Giant Kelp (3) S

Prerequisites: BIOL 353, 425, or 439 with a grade of "C" or better. (Undergraduates enroll in BIOL 428; graduates enroll in BIOL 528.)
Physiology, reproductive biology, anatomy, taxonomy, and ecology of ecologically and economically important kelp genus Macrocystis. Letter grade only (A-F). (Lecture 3 hrs.)
433./533. Developmental Biology (3) S

Prerequisites: BIOL 370; CHEM 320A,B. (Undergraduates enroll in BIOL 433; graduates enroll in BIOL 533.)
Current topics and experimental approaches in cell differentiation and development, emphasis on examination of these processes at the molecular level. Topics include gametogenesis, fertilization, differential gene expression, and role of oncogenes in development. Letter grade only (A-F). (Lecture/discussion 3 hrs.)

## *439. Plant Morphology (4) F

Prerequisite: BIOL 211A,B with grade of " $C$ " or better.
Comparative structure, life history and phylogenetic relationships of plants.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

## *441. Physiology for Therapists II (3) F,S

Prerequisites: BIOL 341.
Mechanisms of action and interaction of physiological body systems with emphasis on cardiovascular, renal, and respiratory systems. Pathological and clinical considerations will be presented.
Not open for credit to students with credit in A/P 441. Letter grade only (A-F). (Lecture 3 hrs.)

## 442./542. Neurophysiology (3)

Prerequisites: PHYS 100A,B; BIOL 342, 345. (Undergraduates enroll in BIOL 442; graduates enroll in BIOL 542.)
Study of mechanisms by which excitable cells function and sensory motor, and integrative systems in which they participate. Representative examples selected from vertebrate and invertebrate phyla.
Not open for credit to students with credit in A/P 442/542. Letter grade only (A-F). (Lecture 3 hrs.)
443./543. Endocrinology (3) S

Prerequisites: BIOL 340 or CHEM 441B; CHEM 320A or 327; and one of BIOL 341, 342, 345, 445, 448; CHEM 441A or 448. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.)
Role of endocrines in vertebrate and invertebrate adjustment to changes in internal and external environment.
Letter grade only (A-F). (Lecture 3 hrs.)

## 444./544. Reproductive Biology (3) S

Prerequisites: BIOL 342 or 345. (Undergraduates enroll in BIOL 444; graduates enroll in BIOL 544.)
Topics in comparative reproductive biology from molecular, cellular, organismal, and population levels. Hormones and reproduction, gamete/gonad biology, reproductive lifespan, mating system/strategies, environmental influence on reproductive capabilities, contraception/in vitro fertilization. Scientific communication discussed including scientific articles and scientific writing.
Letter grade only (A-F). (Lecture 3 hrs.)

## 445./545. Metabolic Regulation (3) F

Prerequisites: CHEM 441B or BIOL 443 or 543. (Undergraduates enroll in BIOL 445; graduates enroll in BIOL 545.)
Study of molecular mechanisms by which intermediary metabolism is regulated in various mammalian tissues with emphasis on mechanisms of hormone action and regulation of some key enzymes of carbohydrate, fat, and protein metabolism.
Not open for credit to students with credit in A/P 445/545. Letter grade only (A-F). (Lecture 3 hrs.)

## 446./546. Respiratory and Renal Physiology (3) F

Prerequisites: BIOL 342 or 345; PHYS 100A,B. (Undergraduates enroll in BIOL 446; graduates enroll in BIOL 546.)
Functions of and interactions between the respiratory and renal systems of mammals.
Not open for credit to students with credit in A/P 446/546. Letter grade only (A-F). (Lecture 3 hrs.)

## 447./547. Molecular Plant Physiology (3) S

Prerequisites: BIOL 340, 370, both with grade of "C" or better. (Undergraduates enroll in BIOL 447; graduates enroll in BIOL 547.)
Molecular approaches to classical topics including plant hormones, photosynthesis, resistance to plant pathogens, adaptation of plants to environmental stress, and development of plants.
Letter grade only (A-F). (Lecture 3 hrs.)

## 448./548. Cell and Molecular Neurobiology (3) S

Prerequisites: BIOL 340 or CHEM 441B and one of BIOL 341, 342, or 345. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.)

Study of molecular, cellular, and developmental principles underlying function of the nervous system in control of physiological and behavioral processes. Focus on mechanisms of electrical signaling and principles of synaptic biochemistry, development, and plasticity.
Letter grade only (A-F). (Lecture 3 hrs.)

## 449./549. Fish Physiology and Endocrinology (3) F, even years

Prerequisites: BIOL 345 with grade of "C" or better.
(Undergraduates enroll in BIOL 449; graduates enroll in BIOL 549.)
Fundamentals of physiological systems and strategies in fishes, with emphasis on endocrine regulatory mechanisms. Adaptations in endocrine physiology of fishes considered from evolutionary and ecological perspectives. Impacts of human activities, particularly in context of Southern California's marine environment addressed. Letter grade only (A-F). (Lecture 3 hrs.)

## 450./550. Plant Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. Recommended: BIOL 427, 447. (Undergraduates enroll in BIOL 450; graduates enroll in BIOL 550.)
Relationship of plants to their environment and principles of plant distribution.
Letter grade only (A-F) (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

## 451./551. Wetlands and Mangrove Ecology (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 451; graduates enroll in BIOL 551.)
Wetlands and mangrove ecology in shaping wetland ecosystem types. Physical and biogeochemical conditions, biological characteristics, specific players, and their interactions. Specific coastal and inland wetland ecosystems descriptions. Wetland management goals and concepts and approaches and practices in U.S. and world. Two lectures will extend beyond standard lecture time.
Letter grade only (A-F). (Lecture, 3 hrs.)

## 452./552. Behavioral Ecology (3) F

Prerequisites: BIOL 211A,B, 260. Pre- or corequisite: BIOL 312 or BIOL 350. (Undergraduates enroll in BIOL 452; graduates enroll in BIOL 552.)
Primary objectives are to understand how animal behavior affects survival and reproduction and introduce students to current methodologies to study behavior of animals in lab and field conditions. Emphasizes ecological and evolutionary consequences of behavior across taxa.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.)

## 453./553. Insect Ecology (3) F, even years

Prerequisites: BIOL 316, 350 with grades of "C" or better. (Undergraduates enroll in 453; graduates enroll in 553.)
Field and experimental studies of abundance, dispersal, distribution, and behavior.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

## 454A./554A. Research in Tropical Marine Ecology (3) S, even years

Prerequisites: BIOL 260, either 350 or 353 , and 313 or 419 or 425 ; and consent of instructor. (Undergraduates register in BIOL 454A; graduates register in BIOL 554A.)
Field and laboratory studies, lectures, and individual research on tropical marine biological problems. Designed to engage students in experimental research, including: recognizing a problem,
designing and carrying out a project, statistical data analysis, and oral and written report presentation.
Eight-day field trip to Hawaii required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). (Lecture 2 hrs., 8 day field trip.)

454B./554B. Research in Tropical Terrestrial Ecology (3) S , odd years
Prerequisites: BIOL 350; one of BIOL 316, 324, 421, 424, 427, or 439; and consent of instructor. (Undergraduates enroll in BIOL 454B; graduates enroll in BIOL 554B.)
Field-based comparison of tropical lowland deciduous forest and lowland rainforest incorporating basic ecology methodology. Forest structure and diversity of animals emphasized. Students maintain field notebook, submit final paper, and give oral presentation.
Nine-day fieldtrip to Costa Rica required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). (Lecture 2 hr ., 9 day field trip.)

## 455./555. Ecology of Marine Communities (3) F

Prerequisites: BIOL 260, 350, 353. (Undergraduates enroll in BIOL 455; graduates enroll in BIOL 555.)
Field studies on ecological principles related to marine communities discussed. Includes individual field research project and two class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 3 hrs.)

## 456./556. Population Ecology (3) S, even years

Prerequisites: BIOL 350, MATH 119B or 123. (Undergraduates enroll in BIOL 456; graduates in BIOL 556.)
Analysis of animal and plant populations characteristics: population growth and regulation, fluctuation and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; spatial patterns.
Letter grade only (A-F). (Lecture 3 hrs.)

## 457./557. Field Methods in Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 457; graduates in BIOL 557.)
Design of field research projects, collection, and data analysis, report writings and presentations. Field sampling techniques emphasized. Five weekend fieldtrips required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)
459./559. Conservation Biology (3) F

Prerequisites: BIOL 260, 350. Recommended: BIOL 370. (Undergraduates enroll in BIOL 459; graduates enroll in BIOL 559.)
Conservation biology concepts including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, biological diversity patterns, habitat fragmentation, reserve design, and landscape-level conservation. Lecture includes group discussions of relevant primary literature.
Letter grade only (A-F). (Lecture 3 hrs., two weekend field trips may be required.)

## 463./563. Computer Modeling in Biology (4) F

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 463; graduates enroll in BIOL 563.)
History, modeling theory, different modeling approaches, theoretical, empirical and quantitative modeling. Laboratory uses modeling software and focuses on model construction and quantitative simulation. Applicable to ecology, microbiology, physiology, environmental sciences, etc.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 464./564. Aquatic Toxicology (3) S

Prerequisites: BIOL 211A,B, 340; CHEM 320A or 327, all with grade of "C" or better. BIOL 353 and CHEM 448 or 441A,B recommended. (Undergraduates enroll in BIOL 464; graduates enroll in BIOL 564.) In depth study of interactions between anthropogenic chemicals and aquatic ecosystems, including origin, fate, chemical and biological detection, and quantification of pollutants and impact at molecular, biochemical, cellular, physiological, organismal, and community levels of organization. Individual research project required.
Letter grade only (A-F). (Lecture 3 hrs.)
465./565. Experimental Design and Regression Analysis (4) F, even years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates enroll in BIOL 465; graduates enroll in BIOL 565.)

Experimental design and data analysis techniques applied to problems in biology including analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Experience in analyzing biological data using computerized statistical packages.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)
466H. Research Design and Methods - Honors (3) S
Prerequisites: BIOL 211A, B, either BIOL 260 or CHEM 251, CHEM 320A, B, all with a grade of "C" or better, completion of the GE Foundation, and consent of instructor.
Introduction to hypothesis testing, experimental design, and regression modeling of biological data; methodological and technical procedures for experimentation; and techniques for written and oral presentation of research results. Research paper and oral presentation required.
Same course as CHEM 466H. Letter grade only (A-F). (Lecture 3 hours).

## 467./567. Multivariate Data Analysis (4) F, odd years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates enroll in BIOL 467; graduates enroll in BIOL 567.)

Multivariate data analysis techniques applied to biological data. Applied matrix algebra for analyzing and understanding multivariate analysis. Includes principal components analysis, factor analysis, discriminant analysis, cluster analysis and current modern phylogenetic analysis techniques. Analyzing multivariate biological data using computerized statistical packages.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

## 473./573. Molecular Genetics (3) S

Prerequisites: BIOL 370 or MICR 371; CHEM 327 or 320A,B. Recommended: MICR 372. (Undergraduates enroll in BIOL 473; graduates enroll in BIOL 573.)
Contemporary molecular genetic analysis of model organisms (mouse, worm, flies, yeasts) used in study of human disease, basic biological processes, gene regulation, and global analysis of genomes and proteomes.
Letter grade only (A-F). (Lecture 3 hrs.)

## 477./577. Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)

Prerequisites: BIOL 340 or 370 or CHEM 441A,B ; all with a grade of "C" or better. (Undergraduates register in BIOL 477; graduates register in BIOL 577.)
Theory and techniques for isolating, amplifying, and analyzing genes, genomes, transcripts, and proteins. Data-mining, the use of computers in experimental design and/or functional analysis, use of microarrays, and future of nanotechnology.
(Lecture 3 hrs., activity 2 hrs.) Letter grade only (A-F).
480./580. Seminars (1) F,S

Prerequisites: BIOL 211A,B with grade of "C" or better.
(Undergraduates enroll in BIOL 480; graduates enroll in BIOL 580.)

Weekly meetings with professional biologists presenting results of their research. Requires participation in organization and critical evaluation of these presentations.
May not be repeated for credit towards any single degree. Letter grade only (A-F) (Seminar 1 hr .)
490./590. Special Topics in Biology (1-3)

Prerequisites: BIOL 211A,B, with grade of " $C$ " or better, and consent of instructor. (Undergraduates enroll in BIOL 490; graduates enroll in BIOL 590.)
Topics from selected areas of biology. Course content varies from section to section.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. Letter grade only (A-F). (Lecture 1-3 hrs.)
490L./590L. Special Topics Laboratory in Biology (1-2)
Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490L; graduates enroll in BIOL 590L.)
Topics from selected areas of biology Course content varies from section to section.
May be repeated to a maximum of 4 units with different topics.
Topics announced in the Schedule of Classes. Letter grade only
(A-F). (Laboratory 3 or 6 hrs.) Course fee may be required.
495. Instruction in Laboratory Teaching (1-2) F,S

Prerequisites: Consent of lecture instructor, a "B" or better in the course in which the student elects to do BIOL 495 (another course with laboratory may be substituted with consent of instructor), and an overall GPA of at least 2.75 .
Individual instruction in organization and techniques of teaching a biology laboratory.
May be repeated for a letter grade and degree credit to a maximum of 2 units for any single degree or option. Units beyond the two taken for a letter grade in BIOL 495 or MICR 495 or any combination of the two will be taken credit/no credit. Same course as MICR 495. (Conference 1 hr., laboratory 3 hrs. per unit.) May be repeated to a maximum of 2 units.

## 496. Undergraduate Directed Research (1-3) F,S

Prerequisites: BIOL 211A,B, with grade of " $C$ " or better, and consent of instructor.
Research in a specific topic in biological sciences approved and directed by a faculty member in the Department of Biological Sciences.
May be repeated for a letter grade and degree credit to a maximum of three units for any single degree or option. Units beyond the three taken for a letter grade in BIOL 496 or MICR 496 , or any combination of the two, will be taken credit/no credit. Same course as MICR 496. Not available to graduate students. (Conference 1 hr ., laboratory 3 hrs. per unit.)
498H. Senior Thesis - Honors (3)
Prerequisites: At least one unit of BIOL 496 and consent of instructor.
Planning, preparation, completion, and oral presentation of a written thesis based on a research project in biological sciences begun in BIOL/MICR 496. Not available to graduate students.
Letter grade only (A-F).

## GRADUATE LEVEL

## 511./411. Marine Mammalogy (3) S, odd years

Prerequisites: BIOL 153 or 353 , BIOL 345, 350, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 411; graduates enroll in BIOL 511.)
Fundamental biological, ecological, and physiological concepts of marine mammals, including cetaceans, pinnipeds, walruses, sirenians, and polar bears. Information concerning taxonomy, distribution, morphology, physiology, reproduction, and feeding through readings and scientific literature. Fieldtrips may include weekends and spring recess.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and fieldtrips 3 hrs.)

## 515./415. Marine Microbiology (3) F, odd years

Prerequisites: BIOL 353 or MICR 355 with a grade of " $C$ " or better. (Undergraduates enroll in BIOL 415; graduates enroll in BIOL 515.) Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.
Same course as MICR 515. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)
520./420. Fisheries Ecology and Conservation (3) F

Prerequisites: BIOL 260, 350, and 419. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.)
Advanced aspects of fish and invertebrate biology and behavior; fisheries economics and conservation; emphasis on state-of-art field/laboratory techniques and contemporary concepts and their application in fishery management.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)
522./422. Methods in Avian Ecology and Conservation (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 422; graduates enroll in BIOL 522.)
Research methods (population density estimation, biacoustics, phylogenetic methods, zonation of protected areas to reduce human disturbance, etc.) used in avian ecology and conservation, including the use of the ornithology museum as a research and educational resource.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.)
524/424. Ornithology (3) S.
Prerequisites: BIOL 211A,B, BIOL 260, and three units of upper division BIOL. Recommended: BIOL 350. (Undergraduates enroll in BIOL 424; graduates enroll in BIOL 524.)
Ecology, morphology, physiology, behavior, and taxonomy of birds from an evolutionary perspective, also factors influencing recent increase in their extinction risk. Species identification techniques (emphasis on the local avifauna) and methods of surveying avian populations.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.) Course fee may be required.

## 528./428. Biology of the Giant Kelp (3) S

Prerequisites: BIOL 353, 425, or 439 with a grade of "C" or better. (Undergraduates enroll in BIOL 428; graduates enroll in BIOL 528.) Physiology, reproductive biology, anatomy, taxonomy, and ecology of ecologically and economically important kelp genus Macrocystis. Letter grade only (A-F). (Lecture 3 hrs.)

## 533./433. Developmental Biology (3)

Prerequisites: BIOL 370; CHEM 320A,B. (Undergraduates enroll in BIOL 433; graduates enroll in BIOL 533.)
Current topics and experimental approaches in cell differentiation and developmental emphasis on examination of these processes at the molecular level. Topics include gametogenesis, fertilization, differential gene expression, and role of oncogenes in development.
Letter grade only (A-F). (Lecture/discussion 3 hrs.)
540. Advanced Molecular Cell Biology and Physiology (3) F

Prerequisites: Consent of instructor.
In depth discussion of cellular processes and their regulation and how they relate to organismal physiology. Includes critical reading and discussion of primary journal articles on pertinent topics.
Letter grade only (A-F). (Lecture 3 hrs.)
542./442. Neurophysiology (3) F

Prerequisites: PHYS 100A,B; BIOL 342, 345. (Undergraduates enroll in BIOL 442; graduates enroll in BIOL 542.)
Study of mechanisms by which excitable cells function and sensory motor, and integrative systems in which they participate.
Representative examples selected from vertebrate and invertebrate phyla.
Not open for credit to students with credit in A/P 442/542. Letter grade only (A-F). (Lecture 3 hrs.)

## 543./443. Endocrinology (3) S

Prerequisites: BIOL 340 or CHEM 441B; CHEM 320A or 327; and one of BIOL 341, 342, 345, 445, 448; CHEM 441A or 448. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.)
Role of endocrines in vertebrate and invertebrate adjustment to changes in internal and external environment.
Letter grade only (A-F). (Lecture 3 hrs.)

## 544./444. Reproductive Biology (3) S

Prerequisites: BIOL 342 or 345. (Undergraduates enroll in BIOL 444; graduates enroll in BIOL 544.)
Topics in comparative reproductive biology from molecular, cellular, organismal, and population levels. Hormones and reproduction, gamete/gonad biology, reproductive lifespan, mating system/ strategies, environmental influence on reproductive capabilities, contraception/in vitro fertilization. Scientific communication discussed including scientific articles and scientific writing.
Letter grade only (A-F). (Lecture 3 hrs.)

## 545/445. Metabolic Prerequisites

Prerequisites: CHEM 441B or BIOL 443 or 543 . (Undergraduates enroll in BIOL 445; graduates enroll in BIOL 545.)
Study of molecular mechanisms by which intermediary metabolism is regulated in various mammalian tissues with emphasis on mechanisms of hormone action and regulation of some key enzymes of carbohydrate, fat, and protein metabolism.
Not open for credit to students with credit in A/P 445/545. Letter grade only (A-F). (Lecture 3 hrs.)

## 546./446. Respiratory and Renal Physiology (3) F

Prerequisites: BIOL 342 or 345 ; PHYS 100A,B. (Undergraduates enroll in BIOL 446; graduates enroll in BIOL 546.)
Functions of and interactions between the respiratory and renal systems of mammals.
Not open for credit to students with credit in A/P 446/546. Letter grade only (A-F). (Lecture 3 hrs.)

## 547./447. Molecular Plant Physiology (3) S

Prerequisites: BIOL 340, 370, both with grade of "C" or better. (Undergraduates enroll in BIOL 447; graduates enroll in BIOL 547.) Molecular approaches to classical topics including plan hormones, photosynthesis, resistance to plant pathogens, adaptation of plants to environmental stress, and development of plants.
Letter grade only (A-F). (Lecture 3 hrs.)
548./448. Cell and Molecular Neurobiology (3) S

Prerequisites: BIOL 340 or CHEM 441B and one of BIOL 341, 342, or 345. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548 .)
Study of molecular, cellular, and developmental principles underlying function of the nervous system in control of physiological and behavioral processes. Focus on mechanisms of electrical signaling and principles of synaptic biochemistry, development, and plasticity.
Letter grade only (A-F). (Lecture 3 hrs.)

## 549./449. Fish Physiology and Endocrinology (3) F, even years

Prerequisites: BIOL 345 with grade of-"C" or better.
(Undergraduates enroll in BIOL 449; graduates enroll in BIOL 549.)
Fundamentals of physiological systems and strategies in fishes, with emphasis on endocrine regulatory mechanisms. Adaptations in endocrine physiology of fishes considered from evolutionary and ecological perspectives. Impacts of human activities, particularly in context of Southern California's marine environment addressed. Letter grade only (A-F). (Lecture 3 hrs .)

## 550./450. Plant Ecology (3)

Prerequisites: BIOL 260, 350. Recommended: BIOL 427, 447. (Undergraduates enroll in BIOL 450; graduates enroll in BIOL 550.) Relationship of plants to their environment and principles of plant distribution.
Letter grade only (A-F) (Lecture 2 hrs., laboratory and field 3 hrs .) Course fee may be required.

## 551./451. Wetlands and Mangrove Ecology (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 451; graduates enroll in BIOL 551.)
Wetlands and mangrove ecology in shaping wetland ecosystem types. Physical and biogeochemical conditions, biological characteristics, specific players, and their interactions. Specific coastal and inland wetland ecosystems descriptions. Wetland management goals and concepts and approaches and practices in U.S. and world. Two lectures will extend beyond standard lecture time.
Letter grade only (A-F). Lecture, 3 hrs .)

## 552./452. Behavioral Ecology (3) F

Prerequisites: BIOL 211A,B, 260. Pre- or corequisite: BIOL 312 or BIOL 350. (Undergraduates enroll in BIOL 452; graduates enroll in BIOL 552.)
Primary objectives are to understand how animal behavior affects survival and reproduction and introduce students to current methodologies to study behavior of animals in lab and field conditions. Emphasizes ecological and evolutionary consequences of behavior across taxa.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs .)

## 553./453. Insect Ecology (3) F, even years

Prerequisites: BIOL 316, 350 with grades of "C" or better. (Undergraduates enroll in 453; graduates enroll in 553.)
Field and experimental studies of abundance, dispersal, distribution, and behavior.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

## 554A./454A. Research in Tropical Marine Ecology (3) S, even years

Prerequisites: BIOL 260, either 350 or 353 , and 313 or 419 or 425 ; and consent of instructor. (Undergraduates register in BIOL 454A; graduates register in BIOL 554A.)
Field and laboratory studies, lectures, and individual research on tropical marine biological problems. Designed to engage students in experimental research, including: recognizing a problem, designing and carrying out a project, statistical data analysis, and oral and written report presentation.
Eight-day field trip to Hawaii required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). (Lecture 2 hrs ., 8 day field trip.)

## 554B./454B. Research in Tropical Terrestrial Ecology (3) S, odd years

Prerequisites: BIOL 350; one of BIOL 316, 324, 421, 424, 427, or 439; and consent of instructor. (Undergraduates enroll in BIOL 454B; graduates enroll in BIOL 554B.)
Field-based comparison of tropical lowland deciduous forest and lowland rainforest incorporating basic ecology methodology. Forest structure and diversity of animals emphasized. Students maintain field notebook, submit final paper, and give oral presentation.
Nine-day fieldtrip to Costa Rica required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). (Lecture 2 hr ., 9 day field trip.)

## 555./455. Ecology of Marine Communities (3) F

Prerequisites: BIOL 260, 350, 353. (Undergraduates enroll in BIOL 455; graduates enroll in BIOL 555.)
Field studies on ecological principles related to marine communities discussed. Includes individual field research project and two class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 3 hrs .)

## 556./456. Population Ecology (3)

Prerequisites: BIOL 350, MATH 119B or 123. (Undergraduates enroll in BIOL 456; graduates in BIOL 556.)
Analysis of animal and plant populations characteristics: population growth and regulation, fluctuation and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; spatial patterns.
Letter grade only (A-F). (Lecture 3 hrs.)

## 557./457. Field Methods in Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 457; graduates in BIOL 557.)
Design of field research projects, collection, and data analysis, report writings and presentations. Field sampling techniques emphasized. Five weekend fieldtrips required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs .)
559./459. Conservation Biology (3) F

Prerequisites: BIOL 260, 350. Recommended: BIOL 370.
(Undergraduates enroll in BIOL 459; graduates enroll in BIOL 559.)
Conservation biology concepts including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, biological diversity patterns, habitat fragmentation, reserve design, and landscape-level conservation. Lecture includes group discussions of relevant primary literature.
Letter grade only (A-F). (Lecture 3 hrs., two weekend field trips may be required.)

## 563./463. Computer Modelling in Biology (4) F

Prerequisites: BIOL 260, 350. (Undergraduates enroll in BIOL 463; graduates enroll in BIOL 563.)
History, modeling theory, different modeling approaches, theoretical, empirical and quantitative modeling. Laboratory uses modeling software and focuses on model construction and quantitative simulation. Applicable to ecology, microbiology, physiology, environmental sciences, etc.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 564./464. Aquatic Toxicology (3) S

Prerequisites: BIOL 211A,B, 340; CHEM 320A or 327, all with grade of "C" or better. BIOL 353 and CHEM 448 or 441A,B recommended. (Undergraduates enroll in BIOL 464; graduates enroll in BIOL 564.)
In depth study of interactions between anthropogenic chemicals and aquatic ecosystems, including origin, fate, chemical and biological detection, and quantification of pollutants and impact at molecular, biochemical, cellular, physiological, organismal, and community levels of organization. Individual research project required.
Letter grade only (A-F). (Lecture 3 hrs .)
565./465. Experimental Design and Regression Analysis (4) F, even years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates enroll in BIOL 465; graduates enroll in BIOL 565.)
Experimental design and data analysis techniques applied to problems in biology including analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Experience in analyzing biological data using computerized statistical packages.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

## 567./467. Multivariate Data Analysis (4) F, odd years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates enroll in BIOL 467; graduates enroll in BIOL 567.)
Multivariate data analysis techniques applied to biological data. Applied matrix algebra for analyzing and understanding multivariate analysis. Includes principal components analysis, factor analysis, discriminant analysis, cluster analysis and current modern phylogenetic analysis techniques. Analyzing multivariate biological data using computerized statistical packages.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

## 570. Advanced Genetics (3) S

Prerequisites: Consent of instructor.
In depth discussion of various advanced topics in genetics, which may include population genetics, molecular phylogeny, and microbiological genetics. Includes critical reading and discussion of primary journal articles on pertinent topics.
Letter grade only (A-F). ( Lecture 3 hrs.)

## 573./473. Molecular Genetics (3) S

Prerequisites: BIOL 370 or MICR 371; CHEM 327 or 320A,B. Recommended: MICR 372. (Undergraduates enroll in BIOL 473; graduates enroll in BIOL 573.)
Contemporary molecular genetic analysis of model organisms (mouse, worm, flies, yeasts) used in study of human disease, basic biological processes, gene regulation, and global analysis of genomes and proteomes.
Letter grade only (A-F). (Lecture 3 hrs.)

## 577./477. Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)

Prerequisites: BIOL 340 or 370 or CHEM 441A,B ; all with a grade of "C" or better. (Undergraduates register in BIOL 477; graduates register in BIOL 577.)
Theory and techniques for isolating, amplifying, and analyzing genes, genomes, transcripts, and proteins. Data-mining, the use of computers in experimental design and/or functional analysis, use of microarrays, and future of nanotechnology.
(Lecture 3 hrs., activity 2 hrs.) Letter grade only (A-F).

## 580./480. Seminars (1) F,S

Prerequisites: BIOL 211A,B with grade of "C" or better. (Undergraduates enroll in BIOL 480; graduates enroll in BIOL 580.) Weekly meetings with professional biologists presenting results of their research. Requires participation in organization and critical evaluation of these presentations.
May not be repeated for credit towards any single degree. Letter grade only (A-F) (Seminar 1 hr .)

## 590./490. Special Topics in Biology (1-3)

Prerequisites: BIOL 211A,B, with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490; graduates enroll in BIOL 590.)
Topics from selected areas of biology. Course content varies from section to section. Topics announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 1-3 hrs.)

590L./490L. Special Topics Laboratory in Biology (1-2)
Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490L; graduates enroll in BIOL 590L.)
Topics from selected areas of biology Course content varies from section to section.
May be repeated to a maximum of 4 units with different topics. Topics announced in the Schedule of Classes. Letter grade only (A-F). (Laboratory 3 or 6 hrs.) Course fee may be required.

## 661. Seminar in Biology (2)

Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F). (Seminar, 2 hrs.)

## 663. Seminar in Cell and Molecular Biology (2)

Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

## 664. Seminar in Marine Biology (2)

Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

## 665. Seminar in Ecology (2)

Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

## 666. Seminar in Physiology (2)

Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

## 696. Research Methods (3) F

Prerequisites: Approved thesis proposal and graduate program on file in the departmental graduate office, and consent of instructor.
Ancillary skills in biological research developed, from initiation to presentation/publication. Includes experimental design, computeraided information retrieval, technical writing, data presentation, computerizing graphics, preparing figures/slides/photography. Culminates with oral poster, and written presentations of research.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

## 697. Directed Research (1-3) F,S

Prerequisite: Consent of instructor.
Research on specific topic approved and directed by a faculty member in the biological sciences. Written report required.
May be repeated for a letter grade and degree credit to a maximum of three units. Any units beyond the three taken for a letter grade in BIOL 697 or MICR 697 or any combination of the two must be taken credit/no credit.

## 698. Thesis (1-6) F,S

Prerequisites: Advancement to Candidacy for the Master of Science in Biology, and consent of the chair of the thesis committee and the departmental graduate advisor.
Planning, preparation, writing, defense, oral presentation, and completion of a research thesis in the biological sciences. Letter grade only (A-F).

## Microbiology Courses (MICR)

Students pursuing a major and/or a minor in this Department may receive unit credit for courses marked with the symbol '\#\#' as a general elective but may not apply the units toward the specific or elective requirements for any degree or option in this Department. Majors in this Department may, however, take, for general education purposes, interdisciplinary courses offered by this department. All other courses in this Department are open to majors and minors but by Letter grade only. Courses with an asterisk may be used in graduate programs.

## LOWER DIVISION

## 101. \#\# Introduction to Human Disease (3) F, S

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement.
Introduction to the study of human disease including moral/ethical and economic issues.
(Lecture 3 hrs.)

## 200. General Microbiology for Health Professionals (4)

 F, SPrerequisites: CHEM 111A or 140 and completion of GE Foundation requirements.
Microbiology for those planning careers in nursing, health care and education, and foods and nutrition. Introduction to microorganisms, including structure, function, metabolism, growth, genetics, diversity, and applied aspects. Special emphasis on human health. Not open for credit to majors in the biological sciences. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required. (CAN BIOL 14)

## 211. General Microbiology (5) F,S

Prerequisites: BIOL 211A with a grade of "C" or better, CHEM 111B.
Introduction to biology of microorganisms, including structure, function, metabolism, growth, genetics, diversity, host-parasite relationships, and applied aspects.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required. (CAN BIOL 14)

## UPPER DIVISION

3001. \#\# Human Immunology: In Self-Defense (3) F

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; one laboratory course in a life science. Introductory psychology and a laboratory course in a physical science recommended.
Mechanisms and cells responsible for protecting human body from disease. Normal functions of immune system, diseases involving immune system, and psychological, endocrine and age factors affecting immune system included. Impact of immunology or organ transplantation, immunotherapy, and biotechnology discussed.
Not applicable for credit toward the major in Microbiology. (Lecture 3 hrs.)

## 320. Bacterial Pathogenesis (3) F,S

Prerequisites: MICR 211.
Nature of host-pathogen interactions in health and disease.
Emphasis upon pathogenic bacteria of humans and animals; topics include bacterial ultrastructure, epidemiology, and mechanisms of pathogenesis, host defense mechanisms, and antibiotic therapy. Letter grade only (A-F). (Lecture 3 hrs.)

## 320L. Bacterial Pathogenesis Laboratory (2) F,S

Prerequisite or corequisite: MICR 320 (may be taken concurrently).
Experiments using modern and classical techniques for the isolation, identification, and characterization of pathogenic bacteria. Molecular mechanisms of bacterial virulence are emphasized. Techniques used include PCR, SDS-PAGE, serotyping, and immunofluorescence microscopy.
Letter grade only (A-F). (Laboratory 6 hrs.) Course fee may be required.

## 322. Mycology/Parasitology (5) F,S

Prerequisites: BIOL 211B; MICR 320.
Second of a two-semester sequence (MICR 320/322) in medical microbiology for majors. Survey of parasitic protozoa, helminthes, and fungi of humans; emphasis on identification of fresh and preserved specimens, pathogenesis, host-parasite interactions, epidemiology, prevention, and control.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required.

## 355. Microbial Ecology (3) S

Prerequisites: MICR 211 or BIOL 211B with a grade of "C" or better.
Explores relationships of microorganisms to their environment. Emphasis placed on ecological basis for diversity of prokaryotic forms, metabolic functions and community interactions.
Same course as BIOL 355. Letter grade only (A-F). (Lecture 3 hrs.)
355L. Microbial Ecology Laboratory (1) S
Prerequisite or corequisite: MICR 355.
Provides an understanding of microbes in the environment. Sample and analyze microbes from field trips to different habitats. Analytical techniques learned include enrichment culture methods and modern molecular biology methods to study the diversity and community dynamics of microbes.
Same course as BIOL 355L. Letter grade only (A-F). (Laboratory 3 hrs.)
371. Microbial Genetics (3) F

Prerequisites: MICR 211.
Genetic analysis of biological processes in microbes. Includes gene structure, regulation, and function; isolation/analysis of mutations in haploid/diploid organisms; gene function from mutants; genetic exchange; regulation of host-pathogen interactions; bacteriophages; cloned genes; and genomics. Letter grade only (A-F). (Lecture 3 hrs.)

## 372. Methods in Microbial Genetics (2) F

Prerequisites: MICR 211. Pre- or corequisite: MICR 371.
Laboratory study of microbial genetics, using classical (nonmolecular) and contemporary (molecular) approaches. Includes genetic engineering techniques; microbial genomics.
Letter grade only (A-F). (Laboratory 6 hrs.) Course fee may be required.

## 415./515. Marine Microbiology (3) F, odd years

Prerequisites: MICR 355 or BIOL 353 with a grade of " $C$ " or better. (Undergraduates enroll in MICR 415; graduates enroll in MICR 515.)

Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry, and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.
Same course as BIOL 415. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)

## 423./523. Hematology (4) F

Prerequisites: BIOL 340. (Undergraduates enroll in MICR 423; graduates enroll in MICR 523.)
Study of blood and coagulation system. Normal cell structure and function and physiological and morphological changes in inflammation, leukemias, and anemias discussed. Clinical, diagnostic, and research techniques for observing blood and pathologic case-studies included.
Useful for student interested in medical professions. Required for clinical laboratory science (medical technology) internship. Letter grade only (A-F). (Lecture 3 hrs ., laboratory 3 hrs .) Course fee may be required.

## *429 Epidemiology of Infectious Diseases (3)

Prerequisites: BIOL 260; MICR 320, 322.
Principles of epidemiology and application to health; fundamentals of biomedical statistics; basic factors in classic epidemiological studies and prevention and control of infectious diseases.
Letter grade only (A-F). (Lecture 3 hrs .)
*430. Immunology (3)
Prerequisites: BIOL 340.
Study of cellular and molecular components of immune system, including how immune system recognizes pathogens, how it functions in various types of immune responses, mechanisms of vaccines, immunodeficiencies, transplantation, allergy, and autoimmunity.
Letter grade only (A-F). (Lecture 3 hrs .)
*430L. Immunology Laboratory (2)
Prerequisites: BIOL 340. Pre- or co-requisite: MICR 430.
Modern and classical techniques in cellular and molecular immunology. Experimental techniques in course have broader applications to other fields in cell and molecular biology. Laboratory techniques include mammalian cell culture, antibody purification, SDS-PAGE, western blots, apoptosis assay, cell proliferation assays, cellular activation assay, and various antibody-antigen interaction assays.
Letter grade only (A-F). (Laboratory 6 hrs.) Course fee may be required.

## 432/532. Immunohematology (2)

Prerequisites: A final grade of "B" or better in MICR 423 and 430 or consent of instructor required. (Undergraduates enroll in MICR 432; graduate students enroll in MICR 532.)
Physical and biochemical characteristics of human erythrocytes. Detailed study of isoantigens and isoantibodies associated with human red blood cells; their detection, mechanisms of cellular destruction and relationship to hematopoietic disease.
(Lecture 2 hrs.) MICR 432 will be accepted toward fulfillment of the 6 units of upper division microbiology electives. Letter grade only (A-F).

## *452. Virology (3) S

Prerequisites: CHEM 441A,B and either MICR 320 or BIOL 340.
Virology at molecular level including virus replication and molecular basis for viral pathogenesis; survey of human and animal viral diseases. Current trends for prevention and treatment of viral diseases.
Letter grade only (A-F). (Lecture 3 hrs.)
*471. Bacterial Physiology (3) S
Prerequisites: MICR 320, CHEM 441A.
Cellular physiology at molecular level as related to bacterial growth, reproduction, nutrition, metabolism, and ecology.
Letter grade only (A-F). (Lecture 3 hrs .)

## *473. Food and Industrial Microbiology (3) F

Prerequisites: MICR 200 OR 211; CHEM 441A OR 448.
Role of microorganisms in food and other industrial processes; emphasis on bacteria, yeasts and molds.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

## 480./580. Seminars in Molecular and Cellular Biology and Microbiology (1)

Prerequisites: BIOL 211A, B, with a grade of "C" or better. (Undergraduates enroll in MICR 480; graduates enroll in MICR 580.)

Weekly meetings at which professional biologists present results of their research. Requires participation in organization and critical evaluation of these presentations.
May not be repeated for credit towards any single degree. Letter grade only (A-F). (Seminar 1 hr.)

## 490./590. Special Topics in Microbiology (1-3)

Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates enroll in MICR 490; graduates enroll in MICR 590.)
Topics from selected areas of microbiology. Course content will vary from section to section. Topics announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 1-3 hrs.)

## 490L./590L. Special Topics Laboratory in Microbiology

 (1-2)Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates enroll in MICR 490L; graduates enroll in MICR 590L.)
Topics from selected areas of microbiology. Course content varies from section to section. Topics announced in the Schedule of Classes.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F). (Laboratory 3 or 6 hrs.) Course fee may be required.

## 495. Instruction in Laboratory Teaching (1-2) F,S

Prerequisites: Consent of lecture instructor, a " $B$ " or better in the course in which the student elects to do MICR 495 (another course with laboratory may be substituted with consent of instructor), and an overall GPA of at least 2.75.
Individual instruction in organization and techniques of teaching a microbiology laboratory.
May be repeated for letter grade and degree credit to a maximum of two units for any single degree or option. Any units beyond the two taken for a letter grade in BIOL 496 or MICR 495 or any combination of the two will be taken credit/no credit. Same course as BIOL 495. May be repeated to a maximum of 2 units. (Conference 1 hr., laboratory 3 hrs . per unit.)

## 496. Undergraduate Directed Research (1-3) F,S

Prerequisites: BIOL 211A, B, MICR 211, all with grade of "C" or better, and consent of instructor.
Research in a specific topic in biological sciences approved and directed by a faculty member in Department of Biological Sciences.
May be repeated for a letter grade and degree credit to a maximum of three units for any single degree or option. Any units beyond the three taken for a letter grade in BIOL 496 or MICR 496 , or any combination of the two, will be taken credit/no credit. Same course as BIOL 496. Not available to graduate students. (Conference 1 hr., laboratory 3 hrs. per unit.)

## GRADUATE LEVEL

## 515./415. Marine Microbiology (3) F, odd years

Prerequisites: MICR 355 or BIOL 353 with a grade of "C" or better. (Undergraduates enroll in MICR 415; graduates enroll in MICR 515.)

Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry, and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.

Same course as BIOL 515. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)

## 523./423. Hematology (4) F

Prerequisites: BIOL 340. (Undergraduates enroll in MICR 423; graduates enroll in MICR 523.)
Study of blood and coagulation system. Normal cell structure and function and physiological and morphological changes in inflammation, leukemias, and anemias discussed. Clinical, diagnostic, and research techniques for observing blood and pathologic case-studies included.
Useful for student interested in medical professions. Required for clinical laboratory science (medical technology) internship. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 532./432. Immunohematology (2)

Prerequisites: A final grade of "B" or better in MICR 423 and 430 or consent of instructor required. (Undergraduates enroll in MICR 432; graduate students enroll in MICR 532.)
Physical and biochemical characteristics of human erythrocytes. Detailed study of isoantigens and isoantibodies associated with human red blood cells; their detection, mechanisms of cellular destruction and relationship to hematopoietic disease.
Letter grade only (A-F). (Lecture 2 hrs.)

## 580./480. Seminars in Molecular and Cellular Biology and Microbiology (1)

Prerequisites: BIOL 211A,B, with a grade of "C" or better. (Undergraduates enroll in MICR 480; graduates enroll in MICR 580.)

Weekly meetings at which professional biologists present results of their research. Requires participation in organization and critical evaluation of these presentations.
May not be repeated for credit towards any single degree. Letter grade only (A-F). (Seminar 1 hr .)

## 590./490. Special Topics in Microbiology (1-3)

Prerequisites: MICR 211 with grade of " $C$ " or better, and consent of instructor. (Undergraduates enroll in MICR 490; graduates enroll in MICR 590.)
Topics from selected areas of microbiology. Course content will vary from section to section. Topics announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 1-3 hrs.)

## 590L./490L. Special Topics Laboratory in Microbiology

## (1-2)

Prerequisites: MICR 211 with grade of " $C$ " or better, and consent of instructor. (Undergraduates enroll in MICR 490L; graduates enroll in MICR 590L.)
Topics from selected areas of microbiology. Course content varies from section to section. Topics announced in the Schedule of Classes.
Maybe repeated to a maximum of 4 units with different topics. Letter grade only (A-F). (Laboratory 3 or 6 hrs.) Course fee may be required.

## 661. Seminar in Microbiology (2)

Prerequisites: Consent of instructor.
Critical evaluation of literature in this field, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hours)

## 697. Directed Research (1-3) F,S

Prerequisite: Consent of instructor.
Research on specific topic approved and directed by faculty member in the biological sciences. Written report required.
May be repeated for a letter grade and degree credit to a maximum of three units. Any units beyond the three taken for a letter grade in BIOL 697 or MICR 697 or any combination of the two must be taken credit/no credit.

## 698. Thesis (1-6) F,S

Prerequisites: Advancement to Candidacy for the Master of Science in Microbiology, consent of the chair of the thesis committee and the departmental graduate advisor.
Planning, preparation, writing, defense, oral presentation, and completion of a research thesis in the biological sciences. Letter grade only (A-F).

# BLACK STUDIES <br> College of Liberal Arts 

Department Chair<br>Alosi Moloi<br>Department Office<br>Psychology Building (PSY), Room 306<br>Telephone<br>(562) 985-4624<br>Faculty<br>Professors<br>Maulana Karenga, Alosi Moloi, Jim C. Robinson, Bede M. Ssensalo, Skyne Uku-Wertimer<br>\section*{Associate Professors}<br>Reiland Rabaka<br>Assistant Professors<br>LaRese Hubbard<br>Administrative Support Coordinator<br>Wanda White

Students desiring information should contact the department office for referral or the faculty advisor.
The Black Studies curriculum is designed to provide general knowledge of Black culture and history and to offer training for professional work in the Black community. It offers programs to serve (1) business; (2) those entering a variety of occupations including government, teaching, school administration, foreign service, law, urban planning, communications, journalism, psychology, recreation, speech and linguistics; (3) majors in other fields, such as history, literature, creative writing, anthropology, who wish to include additional dimensions to their course of study.

## Bachelor of Arts in Black Studies (code B/STBA01) (120 units)

## Requirements

A minimum of 39 units is required for the major in Black Studies.

Lower Division: B/ST 110, B/ST 121 and 6 additional units: one course from each of the following:

Group A) B/ST 115, 120, 200, 201 and 210.
Group B) B/ST 140, 155, 160, 170A, 170B, 180, 205, 240 and 255.
Group C: B/ST 170A, 170B and 180
Upper Division: B/ST 330, 332, 335, 495, plus 15 units with one or more courses selected from each of the following: Group A: B/ST 304, 310, 319, 325, 331, 337, 345, 410, 430

Group B: B/ST 340, 343A, 343B, 346, 353I, 363, 370, 415
Group C: B/ST 380, 400, 460, 475 and 4981

## Certificate in Black Studies (code B/STCT01)

Students majoring in other departments of the University but interested in Black Studies may at the same time pursue a program leading to a Certificate in Black Studies. Courses used to meet the certificate requirement may, where applicable, also be used simultaneously to meet General Education requirements or the major and minor requirements of cooperating departments.

## Requirements

1. A bachelor's degree with a major in a traditional discipline. (Certificate can be completed prior to or simultaneously with completion of the B.A. requirement.)
2. A minimum of 24 units of which at least 12 must be in upper-division courses, with two or more courses selected from each of the following:
Group A: B/ST 110, 210, 325, 330, 332, 335, 370, 420
Group B: B/ST 160, 340, 343A, 346, 363, 450
Group C: B/ST 120, 121, 200, 201, 304, 337, 400, 410

## Minor in Black Studies (code B/STUM01)

## Requirements

The minor in Black Studies requires a minimum of 24 units of which at least 12 units must be in upper-division courses, with two or more courses selected from each of the following:

Group A: B/ST 120, 121, 200, 201, 210, 304, 310, 325, $330,332,335,370,400,410,420$ and 430 ;
Group B: B/ST 140, 155, 160, 180, 205, 255, 337, 340, 343A, 343B, 346, 363, 370, 415, 450 and 475;
Take the following core courses: B/ST 110 and 495 The Minor in Black Studies is open to any non-Black Studies majors.

## Courses (B/ST)

## LOWER DIVISION

## 1. Language Skills (3)

Not open for credit to students with credit in B/ST 170A.
Focuses on intensive development of grammatical skills and expository writing. Primarily for Black students.
Credit/no credit only. Counts as part of student's course load but does not carry graduation credit.

## 100. Language Skills - Composition (3)

Prerequisite: A recorded total of 151 above on the English Placement test (EPT), or credit in B/ST 1 or its equivalent.
Focuses on organizational methods and techniques for writing compositional and expository prose, advanced grammar and some critical reading techniques for term papers. Designed for first year students, especially Bidialectal and ESL students.
Not open for credit to students with credit in ENGL 100, ASAM 100, CHLS 104.

## 110. Introduction to Black Studies (3)

Prerequisite/Corequisite: One GE Foundation course.
A critical survey of the major themes, issues, concepts, current research, schools of thought, theorists and scholars in the discipline of Black Studies, as well as its historical evolution and academic rationale.

## 115. Introduction to African Politics (3)

A review of recent developments or changes in the government, parties, political ideologies, politics, leadership and political processes in selected African countries.

## 120. Afro-American History to 1865 (3)

Prerequisite/Corequisite: One GE Foundation course.
Survey course presenting a description and analysis of African civilization before the coming of the European. Focus on impact, significance and role played by the African-American from the colonial period through the American Revolution, to the Civil War.
121. Afro-American History 1865-Present (3)

Prerequisites/Corequisite: One GE Foundation course.
Impact of social, economic and political change on Blacks in America after the Reconstruction period. Black migration, education, cultural development and business enterprises will be examined.

## 140. Introduction to African-American Literature (3)

Prerequisite/Corequisite: One GE Foundation course.
A study of selected or representative literature of the African-American writer. Special attention will be given to style, content, methodology and thematic approach.

## 150. Critical Thinking in Black Studies (3)

Prerequisite: Completion of or concurrent enrollment in B/ST 100 or equivalent.
Introduction to the nature and process of critical thinking. Extensive practice in critical reasoning directed toward developing cognitive skills and dispositions central to its application in academic work and in the analysis and advocacy of personal perspectives and social issues.

## 154. Introduction to Africana Women's Studies (3)

Prerequisite/Corequisite: One G.E. foundation course.
Critical introduction to basic concepts, perspectives and methodology in Africana women studies, focusing on historical and contemporary continental and diasporan African women's experience, initiatives, issues, and intersections of race/class/ gender within the context of their oppression, resistance and internal creative capacity.

## 155. Afro-American Music (3)

Prerequisite/Corequisite: One GE Foundation course.
Nontechnical survey of African-American music. Some attention given to the impact of social movements on the musician and the music produced. Gospel, jazz and well-known derivatives will be highlighted.

## 160. Introduction to Black Arts (3)

Prerequisite/Corequisite: One GE Foundation course.
A presentation of prevailing themes, methodology, concepts and meaning in African art. Equal time is given to contemporary art and art of recent history. The work of some African artists highlighted as appropriate.

## 167. Exploitation of the Black Athlete (3)

Study of the socio-dynamics of amateur, professional and collegiate sports activity in the United States as it relates to the African-American community. Case studies of well-known Black athletes will also be presented.

## 170A. Elementary Swahili (4)

Prerequisites/Corequisite: Any Foundation Course.
For those who are just beginning the study of Swahili. Introduction to grammar, syntax comprehension, reading, writing and conversation in the lanaguage.
Letter grade only (A-F).

## 170B. Elementary Swahili (4)

Prerequisites: B/ST 170A or equivalent competency.
A continuation of B/ST 170A. Advanced grammar, syntax, comprehension, reading, writing and conversation in the lanaguage.
Letter grade only (A-F).

## 180. Black Language in America (3)

Historical, phonological, and sociological aspects of the language of Black Americans; traces early uses in Africa; linguistic development from lingua franca to pidgin and creole; linguistic symbols, terms, and analysis applied to Black English; difference versus deficit theory.

## 190. Racism in the American Military (3)

Concise review of alternate policies of exclusion, restriction, segregation and conscription of the African-American in armed services.

## 200. Ancient African Civilizations (3)

Prerequisite: Completion of GE Foundation requirements.
A study of ancient African empires and kingdoms. Topics include migration, education, family structure, political institutions, cultural transmission and commercial trade.

## 201. History of Slavery (3)

Prerequisite: Completion of GE Foundation requirements.
Historical examination of trans-Atlantic slave trade and its impact on Africa and the Western Hemisphere. Nature of slavery in Africa, Greece, Italy, the Caribbean, the Middle East, South America, and the United States. Legacy of Slavery.

## 205. Modern Black South African Literature (3)

Prerequisite: Completion of GE Foundation requirements.
Study of South African literature written in English by Africans since 1800's to present. "Black" used broadly to include South Africans of mixed parentage whom the racial laws and policies of the white minority government separated, classifying them as "Coloreds." Letter grade only (A-F).

## 210. African American Community (3)

Prerequisites: All Foundation Courses.
Examines the social structure and challenges in the community life of African-Americans as compared to other ethnic groups. Explore and analyze how institutional and stratified pattern, demographic changes, social movements, community organizational programs affect blacks. Case studies presented.

## 215. U.S. Diversity and the Ethnic Experience (3)

Prerequisities: Open only to Integrated Teacher Education Program students.
Comparative study of four major ethnic groups: Native Americans, African Americans, Latino America, and Asian Americans) in U.S. society from the colonial era to the present.
Same course as AIS 215, ASAM 215, CHLS 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

## 240. African and African American Folklore and Culture

 (3)An examination and presentation of material on folklore, folk tales, and folk heroes in the Black community. Some attention also given to Black mythology.

## 255. Introduction to Hip Hop (3)

Prerequisites: All Foundation Courses.
A critical exploration of Hip Hop's history and culture, which includes analyses of its impact and influence on contemporary aesthetic culture, race relations, gender politics and struggles for social justice.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 304. The African Colonial Experience (3)

A critical examination of colonialism as a world phenomenon focusing on colonialism in Africa as the paradigm and point of departure for a specific and comparative understanding.
310. Black Male and Female Relationships (3)

A comprehensive study of male/female patterns of interaction in the Black community. Some attention given to institutional impact, role changes and projected images of relationships.

## 319. The Ethnic Experience in the U.S. (3)

Comparative study of race, cultures, and ethnic relations in U.S. society with special focus on experiences of four core groups: Native Americans, African American, Asian Americans, and Latino Americans.
Same course as AIS 319, ASAM 319, CHLS 319, W/ST 319. (Lecture/Discussion.)

## 325. Psychology of Minorities (3)

Prerequisite: B/ST 110 or PSY 100.
Develops the concept of a minority psychology. Using comparative techniques and guest lecturers, this course introduces the student to common psychological consequences in the experience of being a minority person.

## 330. Politics of the Black Community (3)

Prerequisites: B/ST 110 and 121.
Study of the perspectives, styles, problems and dynamics of political activity in the Black community.

## 331. Black Juvenile (3)

Prerequisite: B/ST 210 or consent of instructor.
Critical approach to the problem of juvenile justice in the black community.

## 332. Civil Rights and the Law (3)

Designed to provide the student with a basic understanding of the interaction between the American legal system and civil rights of Blacks, other minorities, women, and the general citizenry.
335. Economic Development in the Black Community (3)

Prerequisites: B/ST 110 and 121.
Development of business and banking institutions in the Black community. Some attention given to the impact of external factors on development.
Letter grade only (A-F).
337. Cultures of the Pan-African Peoples (3)

Prerequisite: B/ST 200 or consent of instructor.
Presentation of a cultural map of African people emphasizing geography, migration and cultural similarities.

## 340. Research Topics in African-American Literature (3)

 Prerequisite: B/ST 140.In-depth presentation and analysis of selected issues and dominant personalities in African-American literature; personality and issue to be matched.

## 343A. African Literature (3)

Prerequisites: Completion of GE Foundation requirements and one or more Explorations courses.
A general survey of traditional and contemporary African Literature within the context of the historical, political, social, economic, and cultural movements. Also a comparison of Pan-African Literature and Western Literature.

## 343B. Caribbean Literature (3)

Prerequisite: Completion of GE Foundation.
A general survey of traditional and contemporary Caribbean literature within the context of the historical, political, social, economic and cultural movements. Also a comparison of PanAfrican literature and Western literature.

## 345. Politics of Black Power (3)

Systematic analysis of the Black Power movement of the 1960's, including contributions and contradictions of major organizations, leadership, and ideologies.

## 346. Black Theatre (3)

Prerequisites: All Foundation Courses.
Introductory survey course of Black Theatre as a historic medium, profoundly revealing in its humanistic, literary, social and cultural heritage as it relates to Africa, America and the Caribbean.
3531. Black Religion (3)

Prerequisites: Completion of the GE Foundation, one or more exploration courses and upper division standing.
Critical examination of selected spiritual and ethical traditions of the world African community with emphasis on Maat, Ifa, Christianity and Islam, their sacred texts and commentaries, major themes, representative figures, and comparative analyses of their continental and diasporan expressions.
354. Black Women and the Civil Rights Movement (3)

Prerequisite: Completion of the G.E. foundation requirements.
A critical examination of the vital and multiple roles Black women played in the modern civil rights movement. Emphasis on Black women's agency, activism and shared vision, and role as an essential political force in reconceiving and reshaping U.S. history.

## 363. History of African Art (3)

Survey of African art from antiquity to the present, with principal focus on sub-Saharan art.

## 370. Black Images in the Mass Media (3)

Prerequisite: B/ST 121.
Examination of portrayal of Black people in mass media, past and present. Primary emphasis on newspapers, radio, films and television.
380. African Political Theory (3)

Prerequisite: B/ST 115.
Examination of theorists and theories which shape African political philosophy. Special attention given to the concepts of Pan-Africanism, African socialism, Negritude and revolution.
381. Blacks and Party Politics (3)

Analysis of Black participation in U.S. political party process. Special features include information on Black participation in Republican, Democratic and third-party organizations. Material and discussion on independent Black political party efforts included.

## 400. Afro-American Social Thought (3)

Survey of African-American intellectual history, with emphasis on social theories and opposing schools of intellectual thought.

## 404. Contemporary Issues of the Third World Nations

 (3)Study of the shifting power and international status of the Black world. Geo-politics and the diplomatic policies of selected countries will be highlighted.

## 410. The Black Family (3)

Prerequisite: B/ST 325 or consent of instructor.
Systematic study, and socio-historical analysis of the structure and function of the Black Family in the United States. Sociological/ theoretical analysis of the models of family units, roles and interpersonal relation in society. Comparison with other family units in America.
415. International Black Children's Literature (3)

A survey of literature for and/or about Black children by authors from Africa, the U.S., the Caribbean and the rest of the Diaspora.

## 420. Black Children in Public Schools (3)

Theories, concepts and principles relating to the intellectual growth, development and learning of Black children.

## 423. Problems in Psychological Assessment of African Americans (3)

Prerequisites: candidates must have a working knowledge of statistical concepts, upper-division standing in Black Studies or consent of instructor.

Examination of issues, problems, and practices in the assessment of African American children.

## 424. Advocacy for Black Child Mental Health (3)

Prerequisites: Upper-division standing or consent of instructor.
Examination of essential mental health needs of African-American children, their legal and educational rights as well as preventive and remedial measures. Emphasis on advocacy, building system of delivery of human services at neighborhood levels for preventive and remedial needs.

## 430. African Political Leadership in the Twentieth Century (3)

Critical examination of African's search for national liberation and cohesion, collectively built institutions, movements/parties and ideological self-definition. Comparative study of traditional African leadership concepts and modern forms. Focus on selected countries and major African leaders.

## 432. Advanced Studies in Afro-American Music (3)

Prerequisite: B/ST 155.
Study of the development, evolution and essence of Afro-American music in the 20th century from perspectives of Afro-American social and cultural history.

## 450. Black Writers Workshop (3)

Prerequisite: ENGL 100, B/ST 100, or equivalent.
Requires extensive writing in four major areas: poetry, drama, fiction and documentaries. It assumes that technical or grammatical problems of writing have been taken care of and focuses on themes which are Afro-centric.

## 452. Ecology of Black Crime (3)

Prerequisite: B/ST 210 or 332.
Study of the interrelationships between the black criminal, the minority community and the criminal justice system.

## 454I. Africana Womanism: An Intellectual History (3)

Prerequisites: Completion of the G.E. foundation requirements, one or more exploration courses and upper division standing.
Historical and critical study of the major schools of thought in Africana womanism, including continental and diasporan sources, historical evolution, cultural grounding, methodology, discourse on and with feminism, enduring and current issues and its relevance and relation to social change.

## 460. African Thought (3)

Prerequisite: Background knowledge of Africa from history, political science, anthropology or sociology is highly recommended.
Analysis of philosophical and religious systems of Africa from antiquity to present.
475. Racism and Sexism: An Analytical Approach (3)

Prerequisite: B/ST 332.
An examination of institutions and a study of legislation which has been written and implemented in consequence of racism and sexism in American society. Social theories used to support concepts of racism and sexism will also be presented.

## 490. Special Topics in Black Studies (3)

Prerequisite: Consent of instructor.
Topics of current interest in black studies selected for intensive development.
May be repeated to a maximum of 6 units with different topics in the same semester. Topics will be announced in the Schedule of Classes.

## 495. Research Methods in Black Studies (3)

Prerequisites: B/ST 110 and 6 units upper division work in Black Studies. For Department majors.
Presents information on use of scientific methods in Black Studies, research theory, research design, sampling, measurement and science techniques. Focuses on instrument construction as well as test reliability and validity.
Letter grade only (A-F).
4981. Ancient Egyptian Ethical Thought (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper division standing.
Critical study of ethical thought of ancient Egypt with due attention to theological, literary and socio-historical context in which it was developed and evolved, including examination of its major ethical texts and comparative analysis with surrounding traditions.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Permits individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units.

## CHEMICAL ENGINEERING

College of Engineering

Department Chair<br>Larry K. Jang<br>Department Office<br>VEC 136<br>Telephone<br>(562) 985-4909<br>\section*{Website}<br>http://www.csulb.edu/coe/che<br>Faculty<br>\section*{Professors}<br>Lloyd R. Hile, Larry K. Jang, Hamid Kavianian, Ashok Naimpally, Shirley C. Tsai<br>Undergraduate Advisor<br>Larry K. Jang<br>Graduate Advisor<br>Shirley C. Tsai<br>Environmental Technology Advisor<br>Ashok Naimpally<br>General Education Advising<br>See Academic Advising Center AS-124

Chemical engineers apply their knowledge of chemistry and engineering to make useful products that improve the quality of our lives. Industries employing our graduates include fuels, chemicals, polymers, microelectronics, biotechnology, environmental, aerospace, food, consumer products, design and construction. The chemical engineering curriculum provides a thorough background in chemical and physical science, mathematics, and engineering for application to the solution of technical problems encountered in the development, operation, design, and support of a diverse variety of industries.

## Educational Mission and Objectives

The Chemical Engineering Department at California State University, Long Beach is a practice-oriented program that aims to develop well-trained professionals who will be successful in their careers and prepared for further advanced studies.

In order to achieve this, the program strives to:

- Provide students the technical foundations to become competent, practicing chemical engineers. Students learn to apply their knowledge of scientific principles to problem identification and solution, to conduct and analyze experimental work, and to design processes and systems to meet specified objectives using modern tools and technologies.
- Prepare students to be successful in their future workplace relationships. Students develop effective communication skills, gain abilities to function productively
in teams, and obtain the foundation to support lifelong learning to promote personal and professional growth.
- Instill in students an understanding of their professional and ethical responsibilities and create awareness of the societal impact that their professional activities may have.
- Continuously improve the academic program in partnership with industry, alumni, and government.


## Chemical Engineering Professional Advisory Council

The Department of Chemical Engineering Advisory and Development Council, consisting of outstanding engineers and executives from industry and government in Southern California, provides guidance to our program. Its mission is to advise and assist in developing the Department and to support its efforts to serve students, the community, and industry. This liaison between the University and industry ensures that industry concerns are addressed in our curricula and provides career guidance for our graduates.

## ABET Accreditation

The Bachelor of Science in Chemical Engineering is accredited by the EAC (Engineering Accreditation Commission) of ABET (Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, website: www.abet.org). Students enrolling in our program must see an undergraduate advisor as early as possible to ensure conformity with ABET requirements.

## Other Related Programs

Students interested in obtaining a Minor in Environmental Engineering should refer to the College of Engineering section of this Catalog. Students who take required Chemistry courses are most likely eligible for Minor in Chemistry degree. See the College of Natural Science and Mathematics section of this Catalog.

Students wishing to pursue advanced study may be interested in the College of Engineering's Master of Science in Engineering (MSE) degree. Graduate study leading to the MSE can be tailored to the goals of a student with a background in chemical engineering by taking advanced course work in the interfacing areas of chemistry, civil engineering (environmental area), electrical engineering (control area), computer engineering (microelectronic device area), mechanical engineering (thermal, fluids, and materials areas) and mathematics in addition to chemical engineering. Thesis work may be supervised by chemical engineering faculty. Detailed requirements for the MSE are specified in the College of Engineering section of this Catalog.

## Grade Requirements

In addition to other University requirements, all students must obtain a grade of "C" or better in each prerequisite for any chemical engineering course. Also, required Written English (GE A1), Speech (GE A2), and Interdisciplinary (IC) courses must be taken for a letter grade, not Credit/No Credit.

## Bachelor of Science In Chemical

 Engineering (code CHE_BS01) (131 units)
## Requirements

Lower Division: CH E 200, 210, 220; CHEM 111A, 111B; one course from CHEM 251, BIOL 211A, or MICR 200; C E 205; E E 211; ENGR 101; MATH 122, 123, 224; PHYS 151; PHYS 152 (or E E 210 and 210L).

Upper Division: CH E 320, 330, 410, 420, 430, 440, 450, 460, 470; CHEM 320A, B or 327 and an approved laboratory science; CHEM 377B; MATH 370A; six units from CH E 300, 415, 425, 435, 436, 437, 445, 455, 465, 475, 480, 485; an ECON course or C E 406; three units of approved engineering electives or pass the FE exam.

## Bachelor of Science In Engineering Technology, Environmental Technology Option (code ET__BS06)

For requirements, see the description in the Engineering Technology Programs section of this catalog.

## Safety Operations Certificate (code ET__CT02)

Advisor - Hamid Kavianian (Chemical Engineering) Department Office - VEC 136
Telephone - (562) 985-2260
This certificate is designed to prepare students for safety positions that require a strong background in the technology of safe industrial environments. Examples of this kind of position are manufacturer's safety representative, manufacturing facilities safety analyst, traffic safety analyst, and representative of California or Federal agencies involving public safety. This interdisciplinary program provides the student with a depth of technical training in safety, and related technical courses, including the experiences in human resources management necessary to effectively supervise safety programs.

## Requirements

1. May be earned concurrently with or subsequent to the baccalaureate degree.
2. Open to all majors who have fulfilled the required prerequisites as stated below.
3. Requires a total of 24 units as specified below:
A. Completion of supporting technical courses chosen in consultation with an advisor.
B. 24 units are required from the following courses: ET 307, 309, 311, 319, 329, 329L, 400, 400L, 409, 410, 420, 449, 449L.
4. Any deviation from this program requires the written permission of the program advisor.

## Courses (CH E)

## LOWER DIVISION

200. Chemical Engineering Fundamentals (3)

Prerequisites: CHEM 111A, MATH 123, PHYS 151.
Dimensional analysis of units, steady and transient balances of mass, momentum and energy, the mathematical solution of chemical engineering problems.
(Lecture-problems 3 hrs )
210. Computer Methods in Chemical Engineering (3) F

Prerequisites: CHEM 111A, MATH 122, PHYS 151.
Beginning programming and techniques of numerical analysis applied to typical problems in chemical engineering.
(Lecture-problems 2 hours, laboratory 3 hours)

## 220. Chemical Engineering Thermodynamics I (3) S

 Prerequisite: CHE 200.Applications of the first and second laws of thermodynamics to chemical processes. Concepts of heat, work, and energy. Energy balances in batch and flow processes, with and without chemical reaction. Gas behavior, phase change, vapor pressure, humidity.
(Lecture-problems 3 hours)

## UPPER DIVISION

300. The Chemical Industry (3)

Prerequisite: CHE 200.
Survey of industrial chemical processing techniques and the activities of engineers in this area, illustrated by field trips, speakers, professional society meetings, films, readings, etc.
(Lecture 3 hours) Letter grade only (A-F).
320. Fluids (3) S

Prerequisites: CH E 200, C E 205.
Study of the deformation and flow of fluids, both liquids and gases, with applications to chemical engineering.
(Lecture-problems 3 hours)
330. Separation Processes (4) F

Prerequisites: CH E 210, 220.
Computation methods for predicting the separation of materials by distillation, absorption, extraction and other methods.
(Lecture-problems 3 hours, lab 3 hrs)
*410. Chemical Engineering Thermodynamics II (3) F Prerequisites: CH E 210, 220.
Analysis and design of process equipment and systems using thermodynamics. Turbines, compressors, power plants, refrigeration cycles. Phase equilibria and nonideal solution behavior. Chemical reaction equilibria and heat effects.
(Lecture-problems 3 hours).
415./515. Occupational and Environmental Safety Engineering and Management (3)
Prerequisite: CHEM 327 or consent of instructor.
Safety analysis and management, legislation, regulations and standards; toxicology and personal protective equipment; fire hazards; noise control; electrical safety; container and spill management; statistical analysis. Extra requirements for graduate students.
(Lecture-problems 3 hours)
*420. Heat and Mass Transport (3) F
Prerequisite: CH E 210, 320; CHEM 377B.
Heat exchange by conduction, convection and radiation. Diffusion in fluids and solids. Simultaneous heat and mass transport.
(Lecture-problems 2 hours, laboratory 3 hours)
*425. Polymer Synthesis and Characterization (3)
Prerequisite: CHEM 320A or consent of instructor.
Physical and chemical concepts in production of polymers. Relation of chemical structure to bulk properties of plastics. Laboratory synthesis of polymers and mechanical, thermal and molecular characterization.
(Lecture-problems 2 hours, laboratory 3 hours)
*430. Chemical Reactor Kinetics (3) F
Prerequisite: CHEM 377B.
Homogeneous and heterogeneous reactions and application to reactor design, catalysts.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## *435. Chemical and Electrochemical Manufacturing Processes (3)

Prerequisites: MAE 322, 330; or CHEM 371A or consent of instructor.
Theory of electrochemical processing. Electroplating and electroless plating. Anodizing and other surface treatments. Carburizing, nitriding atmospheres and equipment. Diffusion in solids. Effect of surface treatments on mechanical properties.
Same course as MAE 425. (Lecture-problems 3 hours) Letter grade only (A-F).

## *436. Corrosion Engineering (3)

Prerequisite: MAE 322 or CHEM 371A or consent of instructor.
Principles of oxide film growth and electrochemical corrosion, corrosion testing, environmental and metallurgical effects on corrosion, environmental stress cracking, corrosion control and prevention.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 437./537. Materials Purification Processes (3)

Prerequisite: CH E 330, 420, or consent of instructor.
Rate-controlled separation processes such as membrane separations, pressure swing adsorption, molecular sieve separation, supercritical fluid extraction, reverse osmosis, and spray drying.
Additional projects required for CH E 537. (Lecture-problems 3 hours) Letter grade only (A-F).

## 438./538. Microelectronic Processing (3)

Prerequisite: E E 210 or PHYS 152.
Basic principles of device physics and applications of transport processes to device fabrication. Fabrication processes include oxidation, microlithography, etching, doping by diffusion or ion implantation, film growth by chemical vapor deposition, and metallization.
Graduate students have additional assignments on design of microfabricated devices. (Lecture-problems 3 hours) Letter grade only (A-F).
*440. Chemical Engineering Laboratory I (2) F
Prerequisites: CH E 220, 320, 330.
Laboratory study of fluid mechanics, separation processes and thermodynamics. Experimental design and analysis and preparation of engineering reports.
(Laboratory 6 hours)

## 445./545. Pollution Prevention (3)

Prerequisite: CH E 330.
Pollution prevention strategies in chemical industry. Hierarchical approach of waste minimization. Life cycle analyses of wastes. Identification of pollution source. Environmentally compatible materials. Unit operations for minimizing waste. Economics of pollution prevention. Extra requirement for graduate students. (Lecture-problems 3 hours) Letter grade only (A-F).

## *450. Chemical Engineering Laboratory II (2) S

Prerequisites: CH E 410, 420, 430, 440; prerequisite or corequisite: CHE 460.
Laboratory study of heat and mass transport, chemical kinetics and control theory. Experimental design and analysis and preparation of engineering reports.
(Lab 6 hours)
455./555. Environmental Compliance (3)

Prerequisite: CHEM 327 or consent of instructor.
Physical and chemical properties of hazardous materials and wastes. Environmental hazards. An examination of environmental laws, regulations and standards dealing with storage, transportation, treatment and disposal of hazardous wastes. Emergency planning and preparedness. Extra requirement for graduate students: term papers or projects.
(Lecture-problems 3 hours)
*460. Chemical Process Control (3) S
Prerequisites: CH E 420; MATH 370 A .
Control theory and practice, instrumentation, system responses, transfer functions, feed-back control, and stability as applied to chemical engineering processes.
(Lecture-problems 2 hours, laboratory 3 hours)

## 465./565. Biochemical Engineering (3)

Prerequisite: CH E 200, 330, 430, and life science course(s) with instructor's approval.
Review of basic science. Kinetics of enzyme-catalyzed reactions. Kinetics of substrate utilization, product formation and biomass production. Design and analysis of bioreactors. Product recovery operations. Applications to natural systems. Extra requirements for graduate students.
(Lecture-problems 3 hrs )
*470. Chemical Engineering Design (4) S
Prerequisites: CH E 220, 330, 420, 430; CHEM 320A.
Design based upon economics and chemical engineering design and analysis.(Lecture-problems 3 hours, problem-design session 3 hrs )
*475. Environmental Pollution (3)
Prerequisite: CHEM 111A-B. Recommended: CHEM 320A, 371A.
Application of chemistry to the problems of pollution.
(Lecture-problems 3 hours)
480./580. Theoretical Methods in Chemical Engineering (3)

Prerequisites: CH E 420, 430.
Simulation and optimization of chemical engineering processes by mathematical formulation and computer modeling.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours)

## 485./585. Air Pollution (3)

Prerequisite: CH E 475 or CE 364 or consent of instructor.
Air pollution chemistry; control strategies; origin of pollutants; meteorology; vapor dispersion models; control principles for particulates, sulfur dioxide, and nitrogen oxides.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours)

## 490. Special Problems (1-3)

Prerequisite: Consent of instructor.
Assigned topics in technical literature or laboratory projects and reports on same.

## GRADUATE LEVEL

## 510. Multiphase Flow and Interfacial Phenomena (3)

Prerequisite: CH E 320 or consent of instructor.
Equation of motion in multiphase systems such as slurries and fluidized beds involving bubbles, drops, and particles. Effects of interfacial tension, particle-surface and interparticulate interactions.
(Lecture-Problems 3 hours) Letter grade only (A-F).
515./415. Occupational and Environmental Safety Engineering and Management (3)
Prerequisite: CHEM 327 or consent of instructor.
Safety engineering and management, legislation, regulations and standards; toxicology and personal protective equipment; fire hazards; noise control; electrical safety; system safety analysis; container and spill management; use of computer systems and statistical methods.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours)
520. Advanced Transport Phenomena (3)

Prerequisites: CH E 320, 420, 430.
Application of differential and integral mass, momentum and energy balances to chemical engineering processes. Analysis of fluid flow, heat transfer, diffusion and chemical reaction in various unit operations.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 530. Advanced Reactor Kinetics (3)

## Prerequisite: CH E 430.

Modeling of chemical reactors; effects of multiple phases, mixing, adsorption, diffusion and catalysts on reactor performance. (Lecture-Problems 3 hrs ) Letter grade only (A-F).
537./437. Materials Purification Processes (3)

Prerequisites: CH E 330, 420, or consent of instructor.
Rate-controlled separation processes such as membrane separations, pressure swing adsorption, molecular sieve separation, supercritical fluid extraction, reverse osmosis, and spray drying.
Additional projects required for CH E 537. (Lecture-problems 3 hours) Letter grade only (A-F).

## 538./438. Microelectronic Processing (3)

Prerequisite: E E 210 or PHYS 152.
Basic principles of device physics and applications of transport processes to device fabrication. Fabrication processes include oxidation, microlithography, etching, doping by diffusion or ion implantation, film growth by chemical vapor deposition, and metallization.
Graduate students have additional assignments on design of microfabricated devices. (Lecture-problems 3 hours) Letter grade only (A-F).

## 545./445. Pollution Prevention (3)

Prerequisite: CH E 330.
Pollution prevention strategies in chemical industry. Hierarchical approach waste minimization. Life cycle analyses of wastes. Identification of pollution source. Environmentally compatible materials. Unit operations for minimizing waste. Economics of pollution prevention.
Extra requirement for graduate students. (Lecture-problems 3 hours) Letter grade only (A-F).

## 555./455. Environmental Compliance (3)

Prerequisite: CHEM 327 or consent of instructor.
Physical and chemical properties of hazardous materials and wastes. Environmental hazards. An examination of environmental laws, regulations and standards dealing with storage, transportation, treatment and disposal of hazardous wastes. Emergency planning and preparedness.
Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hours)
560. Advanced Chemical Process Control (3)

Prerequisite: one of the following: CH E 460, E E 370/L, 411, 470, 471, 511, MAE 376, E T 492, or consent of instructor.
Principles and practices of controller selection and tuning, advanced control loops, model predictive control, decoupling, hands-on experience of control loop design and implementation using Labview.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 565./465. Biochemical Engineering (3)

Prerequisites: CH E 200, 330, 430, and life science course(s) with instructor's approval.
Review of basic science. Kinetics of enzyme-catalyzed reactions. Kinetics of substrate utilization, product formation and biomass production. Design and analysis of bioreactors. Product recovery operations. Applications to natural systems. Extra requirements for graduate students
(Lecture-problems 3 hrs )
580./480. Theoretical Methods in Chemical Engineering (3)

Prerequisites: CH E 420, 430.
Simulation and optimization of chemical engineering processes by mathematical formulation and computer modeling.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours)

## 585./485. Air Pollution (3)

Prerequisite: CH E 475 or CE 364 or consent of instructor.
Air pollution chemistry; control strategies; origin of pollutants; meteorology; vapor dispersion models; control principles for particulates, sulfur dioxide, and nitrogen oxides.
Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hrs )

## 697. Directed Research (1-3)

Prerequisite: Graduate standing.
Individual research or intensive study under the guidance of a faculty member on theoretical or experimental problems in chemical engineering.
(Independent Study) Letter grade only (A-F).

## 698. Thesis or Industrial Project (2-6)

Prerequisite: Advancement to Candidacy.
Preparation and completion of a thesis or industrial project in chemical engineering.
May be repeated to a maximum of 6 units.

## CHEMISTRY AND BIOCHEMISTRY

College of Natural Sciences and Mathematics

Department Chair<br>Douglas D. McAbee<br>Department Office<br>Peterson Hall (PH) 3-213<br>Telephone/FAX<br>(562) 985-4941/(562) 985-8557<br>\section*{Website}<br>http://chemistry.csulb.edu<br>\section*{Faculty}<br>\section*{Professors}

Roger A. Acey, Dennis M. Anjo, Peter Baine (Emeritus), Stuart R. Berryhill, Jeffrey A. Cohlberg, Dorothy M. Goldish (Emerita), Lijuan Li, Robert L. Loeschen, Tom J. Maricich, Douglas D. McAbee, Margaret L. Merryfield, Henry N. Po (Emeritus), Nail M. Senozan (Emeritus)

## Associate Professors

Paul T. Buonora, Marco A. Lopez, Kensaku Nakayama, Young Shon

## Assistant Professors

Christopher R. Brazier, Xianhui Bu, Eric Marinez, Brian L. McClain, Stephen P. Mezyk, Michael P. Myers, Katarzyna Slowinska, Krzysztof Slowinski, Paul M. M. Weers

## Administrative Support Coordinator

Gina Van Essen

## Undergraduate Advisors

Chemistry: Paul T. Buonora
Biochemistry: Roger A. Acey, Jeffrey A. Cohlberg, Douglas D.
McAbee, Margaret L. Merryfield, Michael P. Myers, Paul M. M. Weers

## Credential Advisor

Laura Henriques, James Kisiel

## Graduate Advisors

Chemistry: Lijuan Li
Biochemistry: Jeffrey A. Cohlberg

## Graduate Studies Committee

Jeffrey A. Cohlberg, Lijuan Li, Douglas D. McAbee, Stephen P. Mezyk, Eric Marinez, Krzysztof Slowinska
Honors in the Major
Margaret L. Merryfield

Students desiring information should contact the department office for referral to one of the faculty advisors.

The Department of Chemistry and Biochemistry offers three bachelor's degrees, the B.S. in Chemistry, the B.S. in Biochemistry, and the B.A. in Chemistry, and two master's degrees, the M.S. in Chemistry and the M.S. in Biochemistry. These programs combined serve over 400 majors. In addition, the Department offers a Minor in Chemistry. The Chemistry and Biochemistry Department Advisory Council, including persons prominent in the community, fosters communication between academic and industrial chemistry. It advises the Department concerning the instructional program and informs the Department of opportunities for interaction with the community.

## Degree Programs

The program in chemistry at the bachelor's degree level is planned to develop background in a specific science, to serve as preparation for graduate work in chemistry or biochemistry, and to provide a foundation for those students seeking careers in the chemical sciences, teaching, law, medicine, dentistry, pharmacy and other health-related professions, and in industrial and governmental scientific occupations. The B.S. degree in Chemistry is certified by the American Chemical Society (American Chemical Society, Committee on Professional Training, 1155 Sixteenth St., NW, Washington, DC 20036, phone: 202-8724589).

Transfer Students: A student who transfers to the University must take at least 16 units of upper division chemistry courses here. To receive credit towards the major for courses taken elsewhere in place of CHEM 320A,B and/or 371A,B and/or 377A,B, consent of the Department Chair is required. Satisfactory performance on appropriate proficiency examinations may also be required.

The Department of Chemistry and Biochemistry offers graduate study leading to research-based master of science degrees in chemistry and biochemistry. The candidate is urged to observe the general requirements stated in this Catalog as well as the specific departmental requirements stated here and, more fully, in the Graduate Studies Brochure of the Department which is available upon request.

A limited number of teaching associate and graduate and research assistantships are available. Usually, these involve half-time work in the instructional program at the freshman and sophomore level or work in the laboratory. Application forms for these positions are available from the Graduate Advisors, Department of Chemistry and Biochemistry.

## Students Desiring Entrance into a Health Professions Program

Students desiring entrance into one of the various health-related professional schools including chiropractic, dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, and veterinary, or to graduate program in physical therapy, should consult with the Health Professions Advising Office in the College of Natural Sciences and Mathematics,

Jensen Student Access to Sciences and Mathematics Center (FO5-109) for more information. Most of the these schools do not require students to major in any particular discipline and many do not even require a bachelor's degree; rather, they want students who have done well in their major and who also took the prerequisite courses required by that particular school.

## Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' Science Safari to Success (for first-time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the fall semester and in January for those starting in the spring semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Jensen Student Access to Sciences and Mathematics Center (Faculty Office 5-109) or Department Office for additional information.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Chemistry (code CHEMBS01) (123 units)

The bachelor of science degree program is intended to provide a thorough background in chemistry for those planning to pursue careers as professional chemists or to do graduate study in chemistry or biochemistry. This program, when supplemented with study in other appropriate areas, can serve as preparation for admission to the health professional schools (medicine, dentistry, pharmacy, etc.). Each student should consult with a faculty advisor to plan his or her individual program. Students may also wish to contact the Health Professions Advising Office in the Jensen Student Access to Sciences and Mathematics Center (FO5-109) for additional information and services.

Chemistry majors must achieve a grade of "C" or better in each chemistry course required for the major.

## Requirements

Lower Division: CHEM 111A,B, 251; PHYS 151, 152, 254, 255; MATH 122, 123, 224; and BIOL 211A.

Upper Division: CHEM 320A,B, 331, 332, 371A,B, 373, 420, 431, 451; one course chosen from among CHEM 466H or ENGL 317, 417, 418, 419; and an additional 6 units of upper division chemistry electives including at least one unit of CHEM 496. A maximum of 3 units from CH E 330, 425, 430 , or 475 may be used to fulfill this six-unit requirement.
B.S. candidates are encouraged to acquire competence in reading scientific German, French, Russian, Chinese or Japanese. Students are also advised to take one or more additional courses in mathematics, such as MATH 247, 364A, 370A, 380.

## Bachelor of Arts in Chemistry (code CHEMBA01) (120 units)

The Bachelor of Arts degree program in chemistry is intended to provide a background in chemistry, but not in the depth required for a bachelor of science degree. This program, when complemented with study in other areas, will serve as preparation for a career in chemical and related industries or secondary science education. The bachelor of arts program is also an appropriate preparation for medical, dental, law, and pharmacy schools. Students may also wish to contact the Health Professions Advising Office in the Jensen Student Access to Sciences and Mathematics Center (FO5-109) for additional information and services. In order to take full advantage of the bachelor of arts program for various career objectives, adequate counseling by chemistry advisors is indispensable. Each student must confer with an advisor to set up his/her individually tailored program in chemistry and one or more complementary areas prior to beginning the course of study.

Chemistry majors must achieve a grade of "C" or better in each chemistry course required for the major.

## Requirements

Lower Division: CHEM 111A,B, 251; PHYS 100A,B or 151, 152; and MATH 122, 123.

Upper Division: CHEM 320A,B, 331, 371A,B or 377A,B, 420, 451; one course chosen from among CHEM 466H or ENGL 317, 417, 418, 419; and a minimum of 3 additional units chosen in consultation with an advisor selected from CHEM 332, 373, 421, 431, 441A,B, 496. Students must consult an advisor to select additional courses to meet the student's individual goals and interests.

## Bachelor of Science in Biochemistry (code CHEMBS02) (121 units)

The Bachelor of Science degree in biochemistry is intended to provide a rigorous background in chemistry and biochemistry for those planning for graduate study in biochemistry or other life sciences, or for careers in biochemical and related industries. This program is also an appropriate preparation for medicine, dentistry, pharmacy and clinical chemistry at the graduate level. Students must confer with an advisor to set up an appropriate program for their goals.

Biochemistry majors must achieve a grade of " $C$ " or better in each chemistry and biochemistry course required for the major.

## Requirements

Lower Division: CHEM 111A,B, 251; BIOL 211A,B; MATH 122, 123; and PHYS 100A,B or 151, 152.

Upper Division: CHEM 320A,B, 371A or 377A, 371B or $377 B$ ( $371 A, B$ is recommended as preparation for graduate studies in biochemistry) 420, 441A,B, 443; BIOL 342 and 342 L, BIOL 370 or MICR 371 and 372; 3 units of elective from CHEM 331, 373, 421, 431, 451; BIOL 340, 445, 448, 473; MICR 452, 473; and one course chosen from CHEM 466H or ENGL 317, 417, 418, 419.

## Teaching Credential

## Requirements Related to a Chemistry Concentration

The Chemistry Concentration meets the subject matter competence requirement for the Single Subject Preliminary Credential in Chemistry (code 181). Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Chemistry teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/singlesubject) for a description of the professional preparation requirements, courses, and application procedures.

The Chemistry Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: ASTR 100; BIOL 211A,B; CHEM 111A,B, 251; GEOL 102, 104, 160; PHYS 100A,B or 151,152; MATH 119A,B or 122, 123.

Upper Division: CHEM 320A,B, 441A, 451, 496, either 431 or 441B; SCED 403.

## Honors in Biochemistry or Chemistry

Students majoring in the B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry who would like an enriched academic program including an intensive research experience may be eligible to graduate with Honors in the Major through the University Honors Program. Students may complete General Honors through the University Honors Program as well; in such cases the General Honors thesis requirement is met through Honors in the Major (see University Honors in this Catalog).

Chemistry majors should be aware that this program is designed for students with career goals in life science areas, and, as such, chemistry majors who wish to participate must take additional coursework in biology beyond the minimum required for a chemistry degree.

The requirements for Honors in the Major will also satisfy the requirements of a college-wide program, Honors in Biological Sciences, created with the support of a grant from the Howard Hughes Medical Institute. While Honors in the Major requires junior or senior standing, the collegewide program offers an enriched curriculum beginning in the freshman year, including a freshman seminar (BIOL 110H), a critical thinking course designed for science majors, and an introduction to bioinformatics (BIOL 220H). Interested students should contact the Honors in Biological Sciences program director or the Jensen Student Access to Sciences and Mathematics Center.

## Requirements for Admission to Honors in the Major

1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry.
3. Submission of an application detailing interest in the program and willingness to commit to a year-long research experience.
4. Letter of recommendation from a CSULB faculty member familiar with the student's work.
5. Completion of BIOL 211A,B; CHEM 251, 320A,B at time of entry with grades of at least "C" in each course. Students may apply during the semester in which they expect to complete these courses.
6. GPA of at least 3.00 in all courses in the major and in all upper division courses in the major.

## Requirements for Graduation with Honors in the Major

1. GPA of at least 3.30 in all upper division courses in the major and in Honors courses.
2. Completion of all requirements for the B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry.
3. Completion of BIOL/CHEM 466H, Research Design and Methods - Honors (3 units).
4. Completion of 3 units CHEM 496, Undergraduate Directed Research.
5. Completion of 3 units of CHEM 498H, Senior Thesis - Honors.
6. Presentation of research results in a public forum. This requirement may be met by presentation at a scientific conference or at a local venue; consult the Honors in the Major advisor for additional information
Substitutions to this program must be approved by the Honors in the Major Advisor.

## Minor in Chemistry (code CHEMUM01)

The Minor in Chemistry is available to any non-Chemistry or non-Biochemistry major.

A minimum of 20 units of chemistry which must include CHEM 111A,B. A minimum of nine units must be taken from upper division chemistry courses. The following courses are not acceptable toward the minor: CHEM 100, 101, 302.

## Concurrent and/or Summer Enrollment in Another College

Students who wish to take course work in a community or other college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for prior approval to enroll in specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with. See "Concurrent Enrollment" and "Transfer of Undergraduate Credit" in this Catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

## Graduate Credit Earned as an Undergraduate Chemistry or Biochemistry Major

Graduate credit usually may not be earned in advance of the baccalaureate degree. However, based upon the recommendation of the Department Chairman and the

Chairman of the Department Graduate Studies Committee, academic performance (a grade point average of 3.00 overall and 3.00 in the major), and promise of academic achievement in postgraduate study, a student in his/her senior year may be granted approval to earn a maximum of 12 units of course work in the 400 and 500 level taken at this University toward his/her prospective graduate program, subject to the following conditions:

1. The course work must be in addition to that required by the Department for the B.A. or B.S. degree in Chemistry or the B.S. degree in Biochemistry.
2. The undergraduate student must have a "Petition to Earn Credit in the Senior Year" approved by the appropriate Department Graduate Advisor, the Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.

## GRADUATE PROGRAMS

## Master of Science in Chemistry (code CHEMMS01)

## Prerequisites

1. Acceptance as a graduate student by the Chemistry and Biochemistry Department;
2. A bachelor's degree with a major in chemistry; or
3. A bachelor's degree with undergraduate preparation in chemistry, physics and mathematics equivalent to that required for the bachelor of science degree with a major in chemistry at this University;
4. Entering graduate students are required to take placement examinations in analytical, inorganic, organic and physical chemistry. Any student failing to take and pass a placement examination in any of these subjects is required to enroll in an appropriate course as recommended by the Graduate Studies Committee. Usually the recommended courses are: CHEM 451 if the subject is analytical chemistry; CHEM 431 if the subject is inorganic chemistry; CHEM 320A and/or 320B if the subject is organic chemistry; CHEM 371A and/or 371B if the subject is physical chemistry.
5. The placement examinations are usually given on Monday and Tuesday of the week preceding the first day of instruction. The Graduate Studies Committee evaluates the examinations and recommends appropriate courses to correct for any deficiencies in chemistry. The Chemistry Graduate Advisor meets with the student at this time to prepare a tentative degree program.

## Advancement to Candidacy

The Department recommends advancement to candidacy after the graduate student has:

1. Either passed the placement examinations in analytical, inorganic, organic and physical chemistry or passed the courses as recommended by the Graduate Studies Committee for correcting deficiencies;
2. Earned an average of at least 3.0 (B) in all work completed at this University as a graduate student;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Obtained approval of a graduate degree program by the Chemistry Graduate Advisor, the Department Chair (in consultation with the Graduate Studies Committee), Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.
The student is expected to be advanced to candidacy by the beginning of the third semester of graduate work. Upon advancement to candidacy, a Thesis Committee will be selected in consultation with the Graduate Studies Committee.

## Requirements

1. Advancement to candidacy at least one semester before the graduation date;
2. The completion of a minimum of 30 units to be distributed in the following way:
A. Minimum of nine units in chemistry lecture courses in the 500 series (excluding CHEM 595). These courses must be selected from at least two of the following fields: analytical, inorganic, organic, physical and biological chemistry;
B. Two units of CHEM 595;
C. One unit of CHEM 660, a maximum of 3 units of CHEM 697 and/or 695 and 4 to 6 units of CHEM 698;
D. Nine to 12 units from 400 and 500 series courses (excluding CHEM 595). The exact number of units depends on the number of 600-level courses taken. Changes in the above pattern of course requirements may be made only at the discretion of the Graduate Studies Committee and the graduate advisor.
3. Completion of an acceptable thesis.

## Master of Science in Biochemistry (code CHEMMS02)

## Prerequisites

1. Acceptance as a graduate student by the Chemistry and Biochemistry Department;
2. A bachelor's degree with a major in chemistry or one of the biological sciences. Prerequisite courses include CHEM 251, $320 A, B, 377 A, B, 441 A, B$; MATH 122,123, or their equivalents, and courses in general biology and cell/molecular biology. A student deficient in any of these courses must complete the course as a graduate student;
3. Entering graduate students are required to take placement examinations in analytical, biological, organic and physical chemistry. Any student failing to take and pass a placement examination in any of these subjects is required to enroll in an appropriate course. The courses usually designated are: CHEM 451 if the subject is analytical chemistry; CHEM 441A and/or 441B if the subject is biochemistry; CHEM 320A and/or 320B if the subject is organic chemistry; CHEM 371A and/or 371B; or 377A and/or 377B if the subject is physical chemistry.
4. The placement examinations are usually given on Monday and Tuesday of the week preceding the first day of instruction. Entering students should correspond with the Biochemistry Graduate Advisor before arrival to arrange to take these examinations. The Graduate Studies Committee evaluates the examinations and recommends appropriate courses to correct any deficiencies in chemistry or biochemistry. The Biochemistry Graduate Advisor will meet with the student at this time to prepare a tentative degree program.

## Advancement to Candidacy

The Department recommends advancement to candidacy after the graduate student has:

1. Either passed the placement examinations in analytical, biological, organic and physical chemistry or passed courses recommended by the Graduate Studies
Committee for correcting the deficiencies;
2. Earned at least a 3.0 ("B") average in all graduate work completed at this University;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Obtained approval of a graduate degree program by the graduate advisor, the Department Chair (in consultation with the Graduate Studies Committee), Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.
The criteria above should be met by the beginning of the third semester of graduate study. Deficient students may continue at the discretion of the Department Graduate Studies Committee.

## Requirements

1. Advancement to candidacy;
2. The completion of a minimum of 30 units with:
A. A minimum of nine units in chemistry lecture courses in the 500 series (excluding CHEM 595);
B. Three units of CHEM 595;
C. One unit of CHEM 660, a maximum of 3 units of CHEM 697, and 4 to 6 units of CHEM 698;
D. The following courses taken either prior to or during the course of this program: (1) CHEM 377A or 371A and CHEM 377B or 371B; (2) CHEM 443 and either CHEM 420 or 451; (3) at least one senior or graduate level course in cell/molecular biology or a related area. Credit earned in these courses may be included in the student's official program at the discretion of the Graduate Advisor.
E. Additional 400 and 500 level science courses (excluding CHEM 595) approved by the Graduate Advisor.
3. Completion of an acceptable thesis.

Changes in the above pattern of course requirements may be made only at the discretion of the Graduate Studies Committee and the Graduate Advisor subject to approval by the Associate Dean for Graduate Accountability and Dean of Graduate Studies.

## Courses (CHEM)

## LOWER DIVISION

## 100. Chemistry and Today's World (4)

Prerequisites: One course from the Foundation (GE categories A1, $\mathrm{A} 2, \mathrm{~A} 3$, and B2).
Basic principles of chemistry and consideration of benefits and problems arising from applications of chemistry. Foods and food additives, drugs, plastics, and other materials of everyday life, fuel sources, the atmosphere, and freshwater discussed.
General education credit available. Not open for credit to chemistry or biochemistry majors or students with credit in CHEM 111A or CHEM 202. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

## 101. Introduction to General Chemistry (4)

Prerequisite: Two years of high school algebra. (This course is a prerequisite to CHEM 111A for students who have not achieved a satisfactory score on the Chemistry Placement Examination.)
Basic principles and concepts including atomic structure, nomenclature and chemical calculations with emphasis on problem solving.
Does not qualify for General Education credit. Letter grade only (A-F). (Lecture 3 hrs., lab-problem session 3 hrs.) Course fee may be required.

## 105. Chemistry Explorations (1)

Prerequisites: A general education math class, which may be taken concurrently.
Central concepts of chemistry, including states of matter, atomic structure, periodic properties, chemical compounds and reaction energy, and equilibrium, illustrated with a series of experiments. Intended for students in the Integrated Teacher Education Program (ITEP).
(Laboratory 3 hours). Course fee may be required.

## 111A. General Chemistry (5)

(Recommended for students who intend to pursue careers in science or engineering.) Prerequisite: A passing score on the Chemistry Placement Examination or credit in CHEM 101 within the preceding year; MATH 112 or higher (may be taken concurrently). One year of high school chemistry is strongly recommended.
First semester of a two-semester sequence (CHEM 111A and 111B). Introduction to principles of chemistry including chemical bonding, solution properties, and chemical equilibrium and kinetics. (Lecture 3 hrs., laboratory and problem session 6 hrs.) Course fee may be required. (CAN CHEM 2)

## 111B. General Chemistry (5)

Prerequisite: CHEM 111A with a grade of "C" or better.
Second semester of a two-semester sequence (CHEM 111A and 111B). Continuation of chemical principles with application to inorganic system. Includes application of bonding theories to inorganic molecules and trends and reactivates of elements and their compounds. Qualitative inorganic analysis and solving aqueous equilibrium problems emphasized.
(Lecture 3 hrs., lab and problem solving sessions 6 hrs.) Course fee may be required. (CAN CHEM 4)

## 140. General, Organic, and Biochemistry (5)

Prerequisites: A GE math course (may be taken concurrently); high school chemistry or equivalent.
This one-semester course encompasses general chemistry, organic chemistry, and biochemistry. Meets chemistry requirement for pre-nursing curriculum.
(Lecture 3 hrs; problem solving session 1 hr ., and laboratory 3 hrs.)

## 251. Quantitative Analysis (4)

Prerequisites: CHEM 111B with a grade of "C" or better. It is strongly recommended that CHEM 251 be taken within one calendar year of CHEM 111B.
Introduction to techniques and theory of gravimetric and volumetric analysis, spectrophotometry, potentiometry, and chromatography.
(Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

## UPPER DIVISION

## 302. Survey of Biochemistry (3)

Prerequisites: Completion of GE Foundation requirements (GE categories A1, A2, A3, and B2).
Study of chemistry, structures, metabolic reactions and functions, of major classes of biochemical compounds.
Does not meet requirements of medical or dental schools. (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

## 320A. Organic Chemistry (3)

Prerequisites: CHEM 111B with a grade of "C" or better. CHEM 251 is recommended.

First semester of two-semester sequence (CHEM 320A and 320B). Sequence meets requirements for medical and dental schools. Emphasis is upon application of modern principles of structure, reactivity, methods of synthesis, physical properties and spectroscopy.
(Lecture 3 hrs., discussion 1 hr .)

## 320B. Organic Chemistry (5)

Prerequisites: CHEM 320A with a grade of "C" or better.
Second semester of two-semester sequence (CHEM 320A and
320B). Continuation of study of organic chemistry including chemistry of compounds containing more than one functional group, bioorganic molecules, and special topics.
(Lecture 3 hrs ., laboratory 6 hrs .) Course fee may be required.

## 327. Organic Chemistry (3)

Prerequisites: CHEM 111A with a grade of "C" or better; CHEM 111 B is recommended.
Lecture course in chemistry of the carbon compounds.
Not applicable to a degree in chemistry. (Lecture 3 hrs .)

## 331. Inorganic Chemistry (3)

Prerequisites: CHEM 111B, 251.
Introduction to coordination chemistry, solid-state chemistry, and reactions of transition metals.
Letter grade only (A-F). (Lecture 3 hrs .)

## 332. Inorganic Chemistry Laboratory (1)

Prerequisites: CHEM 331 (may be taken concurrently). Synthesis, characterization, and manipulation of inorganic compounds and materials.
Letter grade only (A-F). (Laboratory 3 hrs ).
371A. Physical Chemistry (3) F
Prerequisite: CHEM 111B and 251 with a grade of " C " or better, MATH 224 (may be taken concurrently), PHYS 152.
First semester of a two-semester sequence (CHEM 371A and CHEM 371B). Principles and applications of classical thermodynamics. Introduction to statistical thermodynamics.
(Lecture 3 hrs .)

## *371B. Physical Chemistry (3)

Prerequisite: CHEM 371A with a grade of "C" or better.
Second semester of a two-semester sequence (CHEM 371A and CHEM 371B) in physical chemistry. Introduction to quantum chemistry, spectroscopy, and chemical kinetics.
Letter grade only (A-F). (Lecture 3 hrs .)
373. Physical and Inorganic Chemistry Laboratory (3) S

Prerequisites: CHEM 251, CHEM 371A,B or CHEM 377A,B (CHEM 371B or CHEM 377B may be taken concurrently), all with a grade of "C" or better.
Introduction to basic techniques in inorganic synthesis and physico-chemical experimental techniques with applications to principles discussed in CHEM 371A,B and CHEM 377A,B.
(Lecture 1 hr ., laboratory 6 hrs.) Course fee may be required.
377A. Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B and 251 with a grade of "C" or better; MATH 123 (may be taken concurrently); PHYS 100B or 152.
First semester of a two-semester sequence. Principles of physical chemistry emphasizing thermodynamics and chemical kinetics. Biological and environmental science examples used to illustrate principles.
(Lecture 3 hrs .)

## 377B. Fundamentals of Physical Chemistry (3)

Prerequisite: CHEM 377A or 371A, each with a grade of "C" or better.
Second semester of two-semester sequence. Principles of physical chemistry with emphasis on molecular structure and spectroscopy. (Lecture 3 hrs .)

## *420. Advanced Organic Chemistry Laboratory (3)

Prerequisites: CHEM 251 and CHEM 320B both with a grade of "C" or better.

Synthesis and characterization of organic compounds. Organic structures analyzed through interpretation of spectral data.
Emphasis on use of high field NMR, mass spectrometry, IR, and UV. Applications of modern separation techniques.
In addition to regularly scheduled lectures, students are expected to attend three hours of lecture on use of chemical literature. Letter grade only (A-F). (Lecture 1 hr., laboratory 6 hrs.) Course fee may be required.
421./521. Physical Organic Chemistry (3) F

Prerequisites: CHEM 320B with a grade of "C" or better; CHEM 371B or 377B (may be taken concurrently). (Undergraduates enroll in CHEM 421; graduates enroll in CHEM 521.)
Theoretical interpretation of chemical and physical properties of organic compounds: mathematical derivations of rate equations from experimental results, quantitative comparison of organics compounds reactivities, mathematical correlations of structure and properties. Solving problems relating to reaction mechanisms to described factors.
(Lecture 3 hrs .)
*431. Advanced Inorganic Chemistry (3) F
Prerequisite: CHEM 331, 371B, both with a grade of "C" or better.
Quantitative study of chemical bonding in inorganic molecules emphasizing on molecular orbital theory. Transition metal chemistry including coordination chemistry, ligand field theory, spectroscopy applications to structural analysis of inorganic molecules, and review of properties and reactivities of elements and their compounds. Letter grade only (A-F). (Lecture 3 hrs.)
*441A. Biological Chemistry (3)
Prerequisites: CHEM 320B with a grade of " $C$ " or better; a biology or microbiology course is recommended.
First semester of two-semester sequence (CHEM 441A and 441 B) in biochemistry. Chemical and mathematical treatment of energetics and kinetics of reactions in living systems, including chemistry and metabolism of carbohydrates and chemistry of proteins.
(Lecture 3 hrs.)

## *441B. Biological Chemistry (3)

Prerequisite: CHEM 441A with a grade of "C" or better.
Second semester of two-semester sequence (CHEM 441A and 441B) in biochemistry. Metabolism of lipids, proteins, and nucleic acids, and other advanced topics in metabolism.
(Lecture 3 hrs .)
*443. Biological Chemistry Laboratory (4)
Prerequisites: CHEM 251 and 441B, both with a grade of "C" or better.
Theory and practice of laboratory techniques used in biochemical research.
(Lecture 1 hr ., laboratory 9 hrs .) Course fee may be required.
447. Clinical Chemistry (3)

Prerequisites: CHEM 251, 441A and 441B, all with grades of "C" or better (CHEM 441B may be taken concurrently).
Methods of analysis and chemical properties of blood, urine, and other biological materials.
(Lecture 1 hr ., laboratory 6 hrs .) Course fee may be required.

## 448. Fundamentals of Biological Chemistry (3)

Prerequisites: CHEM 111A and 327, both with a grade of "C" or better. CHEM 201A may not substitute for CHEM 111A, and CHEM 201A,B or CHEM 302 may not substitute for CHEM 327.
Major biochemistry principles including metabolic processes, biological control and regulatory processes, nutrition and chemical energetics and kinetics of animals, plants, and microorganisms. Emphasis on major concepts and problem solving.
Not open for credit to chemistry majors. (Lecture 3 hrs.)

## 449. Nutritional Biochemistry Laboratory (3)

Prerequisite: CHEM 448 with a grade of " C " or better.
Analytical and biochemical analyses of foodstuffs and other compounds of biochemical interest.
(Lecture 1 hr ., laboratory 6 hrs.) Course fee may be required.

## *451. Instrumental Methods of Analysis (4)

Prerequisites: CHEM 251 and 371A or 377A, all with a grade of "C" or better, or consent of instructor.
Theory and application of instrumental methods to chemical problems. Includes atomic and molecular absorption and emission, electroanalytical chemistry, techniques of separations, nuclear methods, and other modern analytical methods.
(Lecture 2 hrs., laboratory 6 hrs.) Letter grade only (A-F). Course fee may be required.
466H. Research Design and Methods - Honors (3)
Prerequisites: BIOL 211A,B, either BIOL 260 or CHEM 251, CHEM 320A, B, all with a grade of " C " or better, and completion of the GE Foundation.
Introduction to hypothesis testing, experimental design, and regression modeling of biological data; methodological and technical procedures for experimentation; and techniques for written and oral presentation of research results. Research paper and oral presentation required.
Same course as BIOL 466H. Letter grade only (A-F). (Lecture 3 hrs.)

## 495. Colloquium in Chemistry (1)

Prerequisites: One semester of organic chemistry.
Presentation of reports by students on original research or current literature.
May be repeated to a maximum of 3 units; only one unit may be counted toward the major requirement of the chemistry degree. An oral report is required.

## 496. Special Problems in Chemistry (1-3)

Prerequisite: Consent of instructor.
Problems selected for considered and mature analysis. A written report required.
May be repeated to a maximum of 6 units (Independent Study). Letter grade only (A-F).

## 498H. Senior Thesis - Honors (1-3)

Prerequisites: One unit of CHEM 496 and consent of instructor.
Planning, preparation, and completion of thesis based on a research project in chemistry or biochemistry.
Letter grade only (A-F). Not available to graduate students.

## 499. Directed Reading (1)

Survey of chemical literature on some topic of current interest under supervision of a faculty member. Preparation of a written report based on readings.
Not open for credit to graduate students.

## GRADUATE LEVEL

## 521./421. Physical Organic Chemistry (3) F

Prerequisites: CHEM 320B with a grade of "C" or better; CHEM 371B or 377B (may be taken concurrently). (Undergraduates enroll in CHEM 421; graduates enroll in CHEM 521.)
Theoretical interpretation of chemical and physical properties of organic compounds: mathematical derivations of rate equations from experimental results, quantitative comparison of organics compounds reactivities, mathematical correlations of structure and properties. Solving problems relating to reaction mechanisms to described factors. (Lecture 3 hrs.)

## 522. Special Topics in Organic Chemistry (3)

Prerequisite: CHEM 421 or 521 or consent of instructor. Areas of current interest in organic chemistry.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 3 hrs.)
531. Advances in Inorganic Chemistry (3)

Prerequisite: CHEM 431 or consent of instructor.
Current topics and advances in inorganic chemistry.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 3 hrs.)

## 542. Special Topics in Biochemistry (3)

Prerequisites: CHEM 441B or consent of instructor.
Intensive discussion of a limited aspect of biochemistry with reference to current literature. Course content will vary from year to year.
May be repeated to a maximum of 6 units with consent of Graduate Advisor. Letter grade only (A-F). (Lecture 3 hrs.)

## 544. Physical Biochemistry (3)

Prerequisites: Either CHEM 371B or 377B, or consent of instructor and CHEM 441B.
Physical chemical aspects of protein and nucleic acid chemistry and related analytical methods.
Letter grade only (A-F). (Lecture 3 hrs.)

## 545. Enzymology (3)

Prerequisites: CHEM 371A or 377A and 441B, or consent of instructor.
Detailed study of mechanisms and kinetics of enzyme-catalyzed reactions and mechanisms of enzyme regulation.
Letter grade only (A-F). (Lecture 3 hrs.)

## 547. Biochemistry of Nucleic Acids (3)

Prerequisites: CHEM 441A,B or consent of instructor.
Gene expression with emphasis on regulatory mechanisms. Analytical techniques for isolation, purification, and characterization of nucleic acids.
Letter grade only (A-F). (Lecture 3 hrs.)
548. Cell Membranes (3)

Prerequisites: CHEM 441A, BIOL 370, and BIOL 340.
Examination of modern membrane biochemistry. May include membrane structure and transport, phospholipids sorting, vesicular transport, membrane coat protein structure and function, and membrane-dependent signal transduction.
Letter grade only (A-F). (Lecture 3 hrs.)

## 552. Special Topics in Analytical Chemistry (3)

Prerequisite: CHEM 451 or consent of instructor.
Including electrochemical measurements, chromatographic techniques, spectroscopic techniques, radiochemical analysis and basic electronic components of instrumentation. Emphasizing the chemical principles involved, utility and limitations of each method. Includes trace analysis of water and air.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 3 hrs.)

## 572. Advanced Physical Chemistry (3)

Prerequisite: CHEM 371B or consent of instructor.
Special topics in physical chemistry.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F). (Lecture 3 hrs .)
595A. Colloquium in Biochemistry (1)
595B. Colloquium in Organic Chemistry (1)
595C. Colloquium in Analytical, Physical and Inorganic Chemistry (1)
Prerequisite: Graduate standing or consent of instructor.
Discussion of advances as reported in recent literature. Provides experience in library use, organization, presentation, and critical evaluation of the chemical literature.
May be repeated to a maximum of 3 units (not more than a total of 3 units may be earned in any combination of CHEM 595 courses). Letter grade only (A-F). (Seminar 1 hr .)

## 660. Seminar in Chemistry (1)

Weekly meetings for presentation and discussion of advanced work in special fields including original research by faculty and graduate students.
Credit/No Credit grading only. (Seminar 1 hr .) May be repeated to a maximum of 2 units.

## 695. Directed Reading (1)

Survey of information in chemical literature on a current research topic, under direction of a faculty member. Written report prepared from these readings.
Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Arrangement with instructor.
Laboratory work supervised on an individual basis. A written report will be required.
Letter grade only (A-F)
698. Research and Thesis (1-6)

Prerequisites: Advancement to candidacy for M.S. in Chemistry or M.S. in Biochemistry and arrangement with instructor.

Planning, preparation and completion of a thesis in chemistry or biochemistry.

## CHICANO AND LATINO STUDIES

## College of Liberal Arts

Department Chair<br>Victor Rodriguez<br>Department Office<br>Faculty Offices (FO) 3-300<br>Telephone<br>(562) 985-4644<br>Faculty<br>Professors<br>Luis Arroyo, Jose Lopez (Emeritus)<br>Associate Professors<br>Victor Rodriguez, Anna Sandoval<br>Assistant Professors<br>Juan Benitez, Grace Delgado, Gabriel Estrada, Jose Moreno<br>Department Secretary<br>Esperanza Contreras<br>Students desiring information should contact the department office for referral to the academic advisor:

## Academic Advisor

Juan M. Benitez

Upper Division: (33 units) Core Courses (12 units required): CHLS 300, 310, 350, 498.
Upper Division (continued): 21 units of elective from Cultural Studies courses: CHLS 330, 390I, 395, 403, 420, 450A, 450B, 490, 499; and Social Inquiry courses: CHLS 319, $335 \mathrm{I}, 340,352,362,400,415,421,470 \mathrm{I}, 490,499$.
Departmental Requirement: The language requirement may be met by one of the following options: Two years of college Spanish; 2) Successful completion of SPAN 250 (Spanish for Bilinguals); 3) A score of 4 or above on the high school advanced placement exam in Spanish language or literature; 4) Successful completion of a proficiency exam.

## Special Track

In addition to the general major in Chicano and Latino Studies, the department also offers a program for students who wish to complete a Special Track major in Chicano and Latino Studies. Within the Special Track, students may receive up to a maximum of 18 units of credit for upper division Chicano and Latino Studies related course work taken from other disciplines. Students wishing to pursue the Special Track major must develop an approved program of study in consultation with the Chicano and Latino Studies Department academic advisor.

The Special Track consists of 39 units total, 30 of which must be upper division, including the following:

Lower Division (9 units): CHLS 100, 101 and 105.
Upper Division (12 units): CHLS 300, 310, 350, 498.
Special Track: A maximum of 18 units of upper division course work from related fields, selected with the approval of the Chicano and Latino Studies Department advisor. Language Requirement: The language requirement may be met by one of the following options: Two years of college Spanish; 2) Successful completion of SPAN 250 (Spanish for Bilinguals); 3) A score of 4 or above on the high school advanced placement exam in Spanish language or literature; 4) Successful completion of a proficiency exam.

## Minor in Chicano and Latino Studies (code CHLSUM01)

A pre-requisite to receive this minor is proficiency In Spanish. This language proficiency requirement may be met by one of the following options: Two years of college Spanish; 2) Successful completion of Spanish 250 (Spanish for Bilinguals); 3) A score of 4 or above on the high school advanced placement exam in Spanish language or literature; 4) Successful completion of a proficiency exam.

## Requirements

Upper Division: a minimum of 24 units distributed as follows: 12 units of core requirements: CHLS 300, 310, 350, 498; 12 units selected from Cultural Studies courses: 390I, 395, 420, 490, 498, 499; and Social Inquiry courses: 300, 310, 319, 340, 350, 352, 362, 415, 421, 470I, 490, 498, 499.

## Certificate in Chicano and Latino Studies (code CHLSCT01)

The Chicano and Latino Studies Department has established a program which offers students interested in this field the opportunity to pursue courses leading to a certificate in Chicano and Latino Studies. Courses used to meet this certificate requirement may be counted also, where applicable, toward the General Education requirements and the degree or credential requirements of the cooperating departments.

## Requirements

1. A bachelor's degree with a major in another discipline;
2. A minimum of 24 units distributed as follows: 12 units of core requirements: CHLS 300, 310, 350, 498; 12 units selected from Cultural Studies courses: 3901, 395, 420, 490, 498, 499; and Social Inquiry courses: CHLS 300, 310, 319, 340, 350, 352, 362, 415, 421, 470I, 490, 498, 499.

## Courses (CHLS)

## LOWER DIVISION

## 1. Bilingual Communication Skills-English (3)

Basic fundamentals of English communication for students of bilingual background. Credit/no credit only. Counts as part of student's course load but does not carry graduation credit.
100. Introduction to Chicano and Latino Studies (3)

Prerequisite or Corequisite: One course from GE category A2. An introductory-level course which acquaints students with the social, political, economic and historic aspects of the Latino experience and examines how they are reflected through various and diverse forms of cultural expression in the United States. Letter grade only (A-F).

## 101. Introduction to Chicano/a and Latino/a Life (3)

Surveys the history, culture, and politics of Chicano/Latino-orgin people living in the United States from 1848 to the present. The course draws on social science and humanities-based literature of the Chicano/Latino experience to examine four general themes: 1) the cultural formation and transformation of Chicano/Latino communities; 2) the dynamic role of women in the shaping of Chicano/Latino culture; 3) Chicano/Latino music and visual art and; 4) the place of Mexican and Latino immigrants in American culture.

## 104. Language Skills - Composition (3)

Prerequisite: A recorded total score of 151 or above on the English Placement Test, or credit in CHLS 1 (or its equivalent) and consent of the instructor.
Advanced fundamentals of English communication for students of bilingual background.
Not open for credit to students with credit in ENGL 100, ASAM 100, B/ST 100. Letter grade only (A-F).

## 105. Identity and Assimilation in Chicano and Latino Life (3)

Prerequisite or corequisite: One course from GE category A2. Explores, comparatively, the development of Chicano-Latino identities through a survey of social scientific, historical and literary sources from Mexican American and Latino regional cultures, tracing the development of societal divisions based on gender, race, ethnicity and class categories.
150. Introduction to Chicano Literary Studies (3)

Prerequisite or Corequisite: One course from GE category A1. Introductory survey course in Chicano and Latino literature covering traditional and contemporary literary styles and forms from selected translated Chicano and Latino readings.
Letter grade only (A-F). Not open for credit to students with credit in CHLS 205.
215. U.S. Diversity and the Ethnic Experience (3)

Prerequisities: Open only to Integrated Teacher Education Program students.
Survey of four major ethnic groups (American Indians, African American, Latino American, and Asian American) in American society from the colonial era to the present. Special attention is given to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States.
Same course as AIS 215, ASAM 215, B/ST 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

## 224. Introduction to Mexican Culture through its Music

 (3)Prerequisite: The completion of GE Foundation requirements.
Covers the development of Mexican culture through its music from pre-Hispanic time to the present. The scope of the class includes the development of the relationship between Mexico's political history, and its music.
Letter grade only (A-F).

## 230. Chicano Community Organization (3)

Analysis of Chicano community groups; emphasis on development of community organizational techniques.

## 258. Introduction to Cultures of Latin America and the

 Caribbean through Music (3)Prerequisite: Completion of GE Foundations requirements. Introduction to Latin America and Caribbean cultures through music from the pre-Hispanic era to the present. The course will focus on the historical, geographical, and political contexts of various Latin American and Caribbean musical genres.
Letter grade only (A-F).

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.
300. Chicano History (3)

Chicanos in the settlement and development of the Southwest and in contemporary U.S. society; Chicano experience as a U.S. minority group; emerging civil rights movement of La Raza.
Letter grade only (A-F). Same course as HIST 370.
310. Chicano Thought (3)

Study of the ideas, philosophies and events affecting Chicano life; identification and examination of the Chicano world view, of a Chicano reality.
319. The Ethnic Experience in the U.S. (3)

Examination of the dynamics of the development of our multicultural society, emphasizing study of the four distinct ethnic strands of American society (Asian American, Black American, Mexican American, and American Indian) and their role in the maintenance of cultural diversity in the United States.
Same course as AIS 319, ASAM 319, B/ST 319, W/ST 319. (Lecture/Discussion.)
330. Critical Issues in Chicana and Latina Studies (3)

Prerequisite: Upper division standing or consent of instructor. Introduces students to four critical themes in contemporary Chicana and Latina feminist scholarship: (1) power and resistance; (2) the construction of work, family, and culture; (3) cultural representations/presentations; and (4) social and biological reproduction.

## 335I. Asian and Latino Immigration Since World War II

 (3)Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the causes of massive Asian and Latino immigration as well as major contemporary issues in the Asian and Latino communities.
Same course as ASAM 335I. (Lecture and discussion, 3 hours)

## 340. Latino Education in the U.S. (3)

Survey of Latinos in the U.S., including topics such as immigration, settlement patterns, employment, family, language and culture. Emphasis is on racism and the intersections of class and gender and the heterogeneity of the Latino population.
Letter grade only (A-F).
350. The Latino Population in the United States (3)

Survey of the comparative historical, cultural and socio-economic experience (including class, gender, immigration and settlement patterns) of the various Latino sub-groups in the United States. Letter grade only (A-F). Same course as SOC 340.

## 352. Central American and Caribbean Peoples in California (3)

Survey of the socioeconomic conditions and cultural life of the Central American and Spanish-speaking Caribbean communities in California, such as Salvadoran, Guatemalan, Puerto Rican, and Cuban communities. Similarities and differences with the MexicanAmerican community will be examined.
Same course as SOC 341.
362. Chicanos and the Law (3)

Analysis of the relationship of the Chicano to the U.S. legal and judicial system. Topics include traditional sociological and criminological theories of Chicano criminality, the Pachuco image, and Chicano experiences with the police and correctional institutions.
Letter grade only (A-F).

## 3901. The "Hispanic" Southwest: Historical and Literary Images (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Critical, interdisciplinary examination of the portrayals of Latinos in selected historical and literary texts by Euro-American authors.

## 395. Latino Cultural Images in Film (3)

Critical, interdisciplinary examination of selected Latino cultural traits and values as these are depicted in motion pictures, documentaries, and other film genres.

## 400. Chicana/o and Latina/o Politics in the U.S. (3)

Prerequisites: Upper division Standing and completion of G.E. Foundation courses.
Interdisciplinary introduction to the history, theories, ideologies, strategies and public policy issues by which Chicanas/os and Latinas/os have struggled to achieve power and social mobility in the United States.
Letter grade only (A-F).
403. Asian American and Chicano/Latino Cinema (3)

Prerequisites: Completion of the Foundation courses, at least one Explorations course, and upper division status.
A team-taught course that explores connections between Asian American and Chicano/Latino cinema, with emphases given to grounding issues presented in films within historical, literary, and cultural studies frameworks.
Same course as ASAM 403.

## 415. Latina Women in the United States (3)

Prerequisite: Junior standing or consent of instructor.
Examine the cultural, political, economic, and sexual forces that mold Latina women. The first section of the course will focus on cultural stereotypes and responses to these stereotypes by Latina women scholars. The second section of the course will focus on Latina class differences and the politics of race. This will provide an overview of the contemporary public policy issues affecting Latinas and the broader Latino community. The contradictions that are identified in this course segment will be juxtaposed against selected African American perspectives to identify areas of symmetry as well as areas of divergence in the domain of political strategizing for political reform and Latina empowerment. The last section of the course will address issues of gender identity and sexuality that challenge, undermine, and strengthen the position of Latina women in the greater society.
Same course as W/ST 320.

## 420. Chicano Heritage in the Arts of Mexico and the Southwest (3)

Historical and philosophical analysis of Indian Mestizo and Chicano plastic arts, music and dances as a way to understand the Chicano heritage.

## 421. Street Gangs in Comparative Perspective (3)

Addresses the contemporary issue of street gangs within the Chicano/Latino community. It analyzes the relationships across the United States of the Chicano gangs with African American gangs, the South East Asian gangs and the White (PUNKERS, Heavy Metalists and Skinheads)-- street gangs. Structural forces of the urban societies, such as proletariat socialization, patriarchy traditions and problems revolving around gender identity are examined. Through theory and a historical analysis, the basis for addressing this contemporary subject is set. A comparative study of youth behavior using both a public health model and a criminal justice model.
Letter grade only (A-F).
450A. Latinas and Revolution: Central America and Late 20th Century Mexico (3)
Prerequisite/Corequisite: ENGL 100 and upper division status or consent of instructor.
Examines how war and struggles for democracy shape the social consciousness and political activism of Latinas. Uses literature, film, history, and political theory to examine the role of violence in women's lives, community organizing, and the conceptualization of a pan-Latina feminist movement.
Letter grading only (A-F). Same course as W/ST 445A.
450B. Latinas and Revolution: Caribbean, U.S. and Early 20th Century Mexico (3)
Prerequisite/Corequisite: ENGL 100 and upper division status or consent of instructor.
Examines how war, revolution, and struggles for democracy shape the social consciousness and political participation of Latinas. Uses film, literature, history, and political theory to identify differences in contexts of community struggle and points of intersection within Latina activism.
Letter grade only (A-F). Same course as W/ST 445B.

450I. Consequences of the Encounter: The Americas, Europe, and Africa (3)
Prerequisites: Completion of the GE Foundation requirement, completion of one or more Exploration courses and upper-division status.

Study of the consequences of the encounter between Africa, Europe, and the Americas from the voyages of Columbus to contemporary times. Through several disciplines: Art, Literature, and the Social Sciences the course examines the complex results of the encounter in respect to the obliteration, suppression and creation of culture among the peoples of both the Old and New Worlds.
Same course as RGR 4501.

## 470I. Latinas/Latinos: Health Status and Health Care Access (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing.
Critical interdisciplinary examination of the health status and health care access of Latinos in the United States. Primary objective of the is to provide overview of policies, epidemiologic, and cultural factors that influence the etiologies of disease within Latino subpopulations. Cross disciplinary approach will also be used to analyze the health care problems faced by Latino subpopulations that constrain efficient management of services and equitable delivery of heath care.
Letter grade only (A-F). Same course as HCA 470I.
*490. Special Topics in Chicano and Latino Studies (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in Chicano and Latino Studies selected for intensive development.
May be repeated for a maximum of six units in different semesters. Topics will be announced in the Schedule of Classes.

## D. Academic Conferences

## *498. Senior Colloquium (3)

Prerequisite: Consent of the instructor.
Analysis of issues and problems in Chicano and Latino studies.
Designed as a seminar in research and methodology. The material discussed will center about a general theme selected by the instructor.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters with different topics but no more than three units may be used to satisfy the requirements for the major.

## *499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Preparation of research reports on selected topics relating to the Mexican-American.
May be repeated for a maximum of six units. Letter grade only (A-F).

# CHILD DEVELOPMENT AND FAMILY STUDIES <br> College of Health and Human Services <br> Department of Family and Consumer Sciences 

## Department Chair

M. Sue Stanley

Department Office
Family and Consumer Sciences (FCS) Bldg., Room 001
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(562) 985-4484 / 985-4414

## Website

www.csulb.edu/depts/fcs

## Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh
Graduate Advisors
Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in six option areas of study

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Merchandising
- Textiles and Clothing

Requirements for all majors include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in
required courses if the course is equivalent to the course at this University and it is first accepted by the University.

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

## Child Development and Family Studies

The field of Child Development and Family Studies (CDFS) strives to improve the lives of children and families. As an integrative and interdisciplinary specialization, Child Development and Family Studies incorporates information from a variety of disciplines. Our primary focus is on utilizing the preventive approach to assist individuals and families. Career options for professionals in the field of CDFS are wide-ranging. Many of our graduates pursue the following opportunities: family life educator; child life specialist; teen pregnancy counselor; domestic violence counselor; toy research and development professional; child development educator/administrator - infant and toddler care, preschool teaching, and school age programs; child development consultant; community resource and referral professional; parent educator; and corporate human services consultant.

## Option in Child Development and Family Studies (code FCS_BA01) (120 units)

BIOL 205 or 309I; PSY 100; SOC 100 or ANTH 120; CDFS 111, 211, 214 and 414 or 215 and 415,311 or 314, 312I, 411, 413, 492A or 492B or 3 units of FCSE 497 or second semester of CDFS 414 or 415; CAFF 321; FCSE 299, 499; NUTR 132, plus 9 units of advisor approved electives. The student also must select with a Child Development and Family Studies advisor's approval 15 units from CDFS 319I, 402, 409, 410, 412, 416A, 416B, 417, 418, 419; FCSE 387 or CDFS courses not taken above. Each course on the student's program planner must be completed with a grade of "C" or higher. In addition, a course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with the approval of the Child Development and Family Studies Area Coordinator.

## Minor in Child Development and Family Studies (code FCS_UM06)

The Child Development and Family Studies (CDFS) minor offers the opportunity to take a concentration of courses focusing on children and families. By providing students with an aggregate of CDFS courses students will be better prepared to assume the duties within a variety of careers relating to children and families in an array of settings.

## Requirements

Students seeking a minor in CDFS must meet all prerequisite course requirements. In addition, students must maintain a "C" or better in all courses required for the minor. The minor requires 21 total units: nine units of core courses consisting of CDFS 111, 312I, and 319l; and 12 units selected from CDFS 211, 214, 215, 311, 314, 409, 410, 411, 412, 413, 414, 415, and 418.

The Minor in Child Development and Family Studies is available to any non-Child Development and Family Studies major.

## Family Life Education

This option is available in the Department of Family and Consumer Sciences. It was introduced in response to a certification process developed by the National Council on Family Relations (NCFR). NCFR is the leading national organization for professionals concerned with promoting and enhancing the quality of family life. NCFR sponsors the only national program to certify family life educators.

Family life education provides skills and knowledge to enrich individual and family life. Family Life Education preparation is based on the suggested guidelines and content areas outlined by NCFR. According to NCFR, there are ten substance areas that constitute family life education. These include knowledge about how families work; the interrelationship of families and society; human growth and development throughout the life span; the physiological and psychological aspects of human sexuality; the impact of money and time management on daily family life; the importance and value of parent education; the effects of policy and legislation on families; ethical considerations in professional conduct; and a solid understanding and knowledge of how to teach and/or develop curriculum for what are often sensitive and personal issues.

After completing the recommended preparatory course work in this department, it is possible to get two types of certification from NCFR:
Provisional Certification from the National Council on Family Relations (NCFR) is available to students who complete the approved courses that correspond to the ten substance areas from an approved program, but without the minimum two years of work experience.
Full Certification from the NCFRelations is available to students who graduate from an approved academic program and have completed at least two years of work experience as a family life educator. The work experience of the student has to be submitted, reviewed, and approved by an NCFR review committee.
This certification enables students to be employed in professional positions in family life education such as a parent educator, a family life educator in a private, government, or business setting, a coordinator for public policy issues affecting children and families, a research facilitator for projects focusing on children, adolescents, and families, a supervisor of curriculum and resource development in family life education, a bereavement counselor for children and families, a teen and adolescent counselor, a consultant to work with military families, a health care consultant, and work in a ministry setting.

According to NCFR, the benefits of certification for the student include the following:

- Recognition of the high standards and criteria needed to provide quality family life education.
- Validation of the students education and work experience.
- Completion of the ten substance areas of family life education.
- Acknowledgement of the preventive focus of family life education.
Interested students contact the Family Life Education Coordinator, Dr. Nilufer P. Medora, Family and Consumer Sciences (562) 985-4488 or at medora@csulb.edu


## Option in Family Life Education (code FCS_BA12) (120 units)

Family Life Education in the Department of Family and Consumer Sciences provides an academic and professional background for work with children, adults, couples, and families. It offers an interdisciplinary foundation in several areas that influence and enhance the quality of life of children, adults, couples, and families based on education, enrichment and prevention. Fieldwork opportunities where students have direct experiences with individuals and families in the community are provided for qualified students.

## Requirements

ANTH 120 or SOC 100; BIOL 205 or BIOL 207; GERN 400 I or HDEV 357I; HSC 425I, PSY 100; CDFS 111, 312I, $319 \mathrm{I}, 410,411,412,413,418,419,492 \mathrm{~B}, 311$ or 314,402 or SOC 423; CAFF 321; FCSE 299, 499; NUTR 132, plus 9 units of advisor approved electives.

Each course on the student's program planner must be completed with a grade of "C" or higher.

In addition, a course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C", may proceed with other courses with the approval of the Child Development and Family Studies Area Coordinator.

## Child Development and Family Studies Courses (CDFS)

## LOWER DIVISION

## 111. Preschool Child (3)

Behavior and development in early childhood, with emphasis on the interaction of parents, children and teachers.
(Lecture-discussion 3 hours.) (CAN FCS 14)

## 211. Guiding Young Children (3)

Prerequisites: PSY 100 or SOC 100 or CDFS 111.
Processes, techniques, models, research, and selected issues in child guidance as applied to $3-5$ year-old children in family and community settings. Development of a personal approach to guidance based on current scientific research and theory concerning child development.
(Lecture-discussion 3 hours.)

## 213. Family, Community, and Young Children (3)

Introductory study of young children and the influences of family, school and community on their development. Exploration of various cultural and social factors, focusing on the resources necessary to promote healthy growth and development.
Students may not substitute this course for CDFS 413. (Seminar 3 hours.)

## 214. Environments for Preschool Children (3)

Prerequisites: CDFS 111 or consent of instructor.
Introduction to preschool care-giving practices. Growth and development of preschool children relating to the classroom environment. Application of theories, models, and research to current preschool classroom practices.
Letter grade only (A-F). (Lecture-discussion 3 hours.)
215. Environments for Infants and Toddlers (3)

Prerequisites: CDFS 111 or consent of instructor.
Introduction to infant and toddler care-giving practices. Growth and development of children from birth through three years of age relating to the classroom environment. Application of theories, models, and research to current infant and toddler classroom practices.
Letter grade only (A-F). (Lecture-discussion 3 hours.)

## 219. Stress, Coping and Resiliency for the Professional Educator (3)

Prerequisites: ENGL 100.
Identification of stressors which diminish the effectiveness of the learning environment for at-risk school children. Use Family Resiliency Model to examine critical family dynamics. Practical stress management for future teachers.
Letter grade only (A-F). (Lecture-Discussion 3 hours.)
290. Directed Studies (1-3)

Independent study under the direction of a faculty member. Exploration and experience in areas which are not a part of any regular course.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. (Seminar)

## UPPER DIVISION

## 311. Prenatal Development and Infancy (3)

Prerequisites: CDFS 111 and upper division standing.
Human development from conception through prenatal development, childbirth, the neonatal period, infancy and toddlerhood with emphasis on the various aspects of development and the environmental/social factors essential for human growth. (Lecturer-discussion 3 hours.)

## 312I. Family and Personal Development (3)

Prerequisites: completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing; PSY 100, SOC 100 or ANTH 120.
Interdisciplinary introduction to the concepts underlying contemporary American family life and the influence of social and cultural conditions on human development.
(Lecture-discussion 3 hours.)

## 314. The Older Child (3)

Prerequisites: CDFS 111, and upper division standing or consent of instructor.

Behavior and development in middle and late childhood and adolescence, with emphasis on individual and cultural differences. (Lecturer-discussion 3 hours)

## 319I. Family Stress and Coping (3)

Prerequisites: Completion of G.E. Foundation courses; ANTH 120 or PSY 100 or SOC 100 or consent of instructor.
Examination of theories and research associated with stressors affecting family functioning throughout the lifecycle. Consideration given to both normative transitions and non-normative stressors.
Emphasis on strategies to assist families to deal productively with stress and change.
(Lecture-discussion 3 hours.)

## 358. Fathers and Fathering (3)

Prerequisites: PSY 100; SOC 100 or CDFS 111.
An overview of the psychological literature on parenting with an emphasis on fathers/fathering in the U.S. Focus on current literature and research regarding the perceived and changing roles of fathers, including ethnic fathers, in an effort to diminish stereotypes. (This course is for both men and women.)
Same course as PSY 366.

## 402. Child and Family Law (3)

Prerequisites: CDFS 312I and upper division standing.
Establishment, conduct, and termination of marital and non-marital family relationships, including the rights and duties of the parties involved. Topics include marital disillusionment, child custody issues, property rights, domestic violence, adoption, support, genetic testing, and new trends in family law.
Letter grade only (A-F). (Lecture-discussion 3 hours.)
409. Language, Learning and the Developing Child: A Cross-Cultural Perspective (3)
Explores the communicative-linguistic, cognitive, physical, and socio-emotional development of the child from the prenatal to adolescent period across diverse cultures with an emphasis on language acquisition and the learning process.
Not open for credit to students currently enrolled in the Liberal Studies program. Same course as LING 429, EDEL 429, and EDP 428. Letter grade only (A-F).

## 410. International Families: Families in Cross-Cultural Perspectives (3)

Prerequisites: CDFS 312I or consent of instructor.
Basic concepts and definitions relating cross-cultural studies will be discussed. Important family life cycle changes will be explained for major ethnic groups within the United States. Family life in selected international families will also be examined.
(Lecture-discussion 3 hours.)
*411. Individual Child Study and Guidance (3)
Prerequisites: Upper division standing; CDFS 311 or 314 or HDEV 3071 or PSY 361; or consent of instructor.
Analysis and interpretation of theory, research, trends and techniques for the study and guidance of the individual child in family and community settings.
(Lecture-activity 3 hours.)
*412. Family Interaction (3)
Prerequisites: Upper-division standing, CDFS 312I, or consent of instructor.
Dynamics of interaction and communication in interpersonal relationships throughout the family life cycle. Experience with a variety of communication skills in small group settings.
(Lecture-discussion 3 hours.)

## *413. Child and Family in the Community (3)

Prerequisites: Upper-division standing, CDFS 312I, or consent of instructor.
Study of cultural varieties and the needs of the contemporary American family in an urban community; analysis of current issues and problems; identification of and experience with community resources and agencies.
(Lecture-discussion 3 hours.)

## 414. Fieldwork with Preschool Children (3)

Prerequisites: CDFS 111, 211, 214, or consent of instructor.
Supervised teaching/learning experience with preschool children including development of skills for observation and assessment as well as curriculum planning, implementation and evaluation.
May be repeated to a maximum of 6 units with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours.)

## 415. Fieldwork with Infants/Toddlers (3)

Prerequisites: CDFS 111, 211, 214, or consent of instructor. Supervised teaching/learning experience with infants/toddlers, including development of skills for observation and assessment as well as curriculum planning, implementation, and evaluation.
May be repeated to a maximum of 6 units with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours.)
416A. Introduction to Administration and Supervision of Child Development Programs (3)
Prerequisites: CDFS 414 or 415 or consent of instructor.
Minimum and recommended standards and laws pertaining to housing, equipment, play space, adult/child ratio, health supervision and meal service for children's programs. Selection and supervision of personnel, program planning and directing. (Lecture-discussion 3 hours.)
416B. Applications of Administration and Supervision of Child Development Programs (3)
Prerequisites: CDFS 416A or consent of instructor.
Decision theory and its application, communication strategies, planning, operating and evaluating programs for young children. (Lecture-discussion 3 hours.)
417. Premarital Intervention (3)

Prerequisites: CDFS 312I or consent of instructor.
Review of research on dating relationships and intervention programs designed for individuals or couples prior to marriage. Emphasis on applying research to the development of programs to assist premarital individuals enrich their relationships.
(Lecture-discussion 3 hours.)

## *418. Parent Education (3)

Prerequisites: Upper-division standing and at least 6 units of upper division child development and family studies or equivalent courses, or consent of instructor.
Principles and techniques for working with parents in community and school programs. Assessment of needs and development of programs for adults in a variety of social and cultural settings. (Lecture-activity 3 hours.)

## *419. Family Life Education (3)

Prerequisites: Upper-division standing, CDFS 413, or consent of instructor.
History, purpose, principles, ethics, ten substance areas, and paradigms of family life education will be explored. Planning, implementing, and evaluating family life education programs will be discussed. Gender, ethnicity, and diversity issues related to family life education will be stressed.
Letter grade only (A-F). (Lecture-discussion 3 hours)

## 492A. Internship in Child Development and Family Studies (3)

Prerequisites: Student must be a Family and Consumer Sciences: Child Development and Family Studies major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Child Development and Family Studies; and CDFS 411, 413, and 414 or 415 . Each prerequisite course must be completed with a grade of " $C$ " or better. A course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.

May be repeated for 6 units maximum. (Seminar 3 hours.)

## 492B. Internship in Family Life Education (3)

Prerequisites: Student must be a major in Family and Consumer Sciences in the option of Child Development and Family Studies; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Child Development and Family Studies; and CDFS 412, 413, and 419.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours.)

# CHINESE STUDIES 

College of Liberal Arts
Department of Asian and Asian American Studies

Department Chair<br>John N. Tsuchida<br>Vice Chair<br>Hsin-sheng C. Kao<br>Department Office<br>Faculty Offices FO3-340<br>Telephone<br>(562) 985-4645<br>FAX<br>(562) 985-1535<br>\section*{Center}<br>Center for Asian Pacific American Studies<br>Website<br>http://www.csulb.edu/dept/as<br>\section*{Faculty}<br>\section*{Professors}<br>Arnold P. Kaminsky, Hiroko Kataoka, Hsin-sheng C. Kao, San-pao Li (Emeritus), Yoko Pusavat (Emeritus), John N. Tsuchida

## Associate Professors

Linda N. España-Maram, Tianwei Xie

## Assistant Professors

Masako O. Douglas, Atsuko Hayashi, Barbara W. Kim, Feng-Ying Ming, Dean S. Toji

## Graduate Advisor

Hsin-sheng C. Kao

## Undergraduate Advisor

Hsin-sheng C. Kao

## Associate Faculty

Christine Bhat (Educational Psychology, Administration and Counseling), Jeffrey Broughton (Religious Studies), Kendall Brown (Art History), Pamela Bunte (Anthropology), Chi-Ah Chun (Psychology), Vincent Del Casino (Geography), Thamora Fishel (Anthropology), Frank Gossette (Geography), Lisa Grobar (Economics), Sarath Gunatilake (Health Science), Jack W. Hou (Economics), Tomotaka Ishimine (Economics), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), William Mulligan (Journalism), Kim Oanh Nguyen-Lam (CLMER), Alan T. Nishio (Public Policy), Eve Oishi (Women's Studies), Karen Quintiliani (Anthropology), Eugene Ruyle (Anthropology), George Scott (Anthropology), Sharon Sievers (History), Paul Tang (Philosophy), Teresa Wright (Political Science), R. Scott Wilson (Anthropology), and Teri Yamada (Comparative World Literature and Classics).

## Administrative Support Coordinator <br> Yuriko Toma

Students desiring information should contact the department office for referral to one of the faculty advisors.

## Bachelor of Arts in Chinese Studies (code A/STBA02) (120 units)

The Bachelor of Arts program in Chinese Studies at CSULB is designed to provide students with linguistic and cultural preparation, supported by international perspectives and understanding of humanities for personal, sociopolitical, and literary-intellectual development, as well as for economic self-sufficiency in the ever-intertwining world of a global economy. The degree program is a major intended to educate and produce graduates who will have communicative proficiency, critical thinking skills, socio-cultural understanding, and literary sensibility for intercultural communication. The degree program will also provide students with an opportunity and preparation to pursue a career involving the Pacific Rim nations, and to go on to graduate and professional programs in fields such as Art, International Affairs, Business Administration, History, Literature, Law, Journalism, Public Administration, or Education.

## Residence Requirement for the Majors

At least four upper division courses required for the major must be completed successfully at CSULB. Students are encouraged, however, to complete up to a year of their language study in approved programs of study abroad.

## Requirements

A minimum of 38 units is required, including at least 15 units earned in residence at CSULB. CHIN 101 and 102 are prerequisite to the major and may be satisfied by appropriate high school preparation or by examination. Required courses include a 3-unit lower division course, 20 units of core courses, and 15 units of electives from the following two groups: 1. Chinese and Chinese language-, literature-, or culture-related courses (9 units); and 2. Chinarelated courses (9 units).
Lower Division Required Courses (11 units):

1. 3 units required course: CHIN 250 or 260
2. 8 units core courses: CHIN 201, 202

Upper Division Required Courses (27 units)

1. 12 units core courses: CHIN 301, 370, 451, 492.
2. 15 units electives selected from the following two groups:
A. 9 units selected from CHIN 302, 321, 350, 360, 380, 382A, 382B, 390, 410, 430A, 430B, 430C, 488, 490, 499; A/ST 490A, 490B.
B. 6 units selected from ANTH 332, AH 468, 469, ASAM 331, A/ST 300I, 301I, 320, 406A, 495I, HIST 382A, 382B, 406A, 488, JOUR 312I, PHIL 306, POSC 362, 455, R/ST 341I, 343, W/ST 406A.

## Chinese Studies (CHIN)

## LOWER DIVISION

## 101. Fundamentals of Chinese (4)

Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for CHIN 101.
Introduction to pronunciation, reading, writing, conversation, and grammar.
Students with previous training or native speakers of Chinese may not enroll.

## 102. Fundamentals of Chinese (4)

Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Introduction to pronunciation, reading, writing, conversation, and grammar.
Students with previous training or native speakers of Chinese may not enroll.

## 111. Accelerated Chinese for Heritage Students I (4)

Prerequisites: One GE Foundation course (may be taken concurrently), and speaking ability of Mandarin Chinese or any of the Chinese dialects. Students who had formal studies of Chinese in China or other Chinese speaking areas may not enroll.
Focus on Chinese literacy and culture and developing reading and writing skills in context for heritage students.
Equivalent to combination of CHIN 101 and 102. Letter grade only (A-F).

## 201. Intermediate Chinese (4)

Prerequisites: Completion of GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Continuation of first year Chinese. Further development of syntax, grammar and sentence patterns, reading, writing and conversation Students with previous training or native speakers of Chinese may not enroll.

## 202. Intermediate Chinese (4)

Prerequisites: Completion of GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Continuation of first year Chinese. Further development of syntax, grammar and sentence patterns, reading, writing and conversation.
Students with previous training or native speakers of Chinese may not enroll.

## 211. Accelerated Chinese for Heritage Students II (4)

Prerequisites: CHIN 111 or speaking ability of Mandarin Chinese (or at least one of the Chinese dialects) and the ability to recognize approximately 500 Chinese characters. Students who have formal studies of Chinese in China or other Chinese speaking areas may not enroll.
The focus of the course is on Chinese literacy and culture, and further development of reading and writing skills in context for heritage students.
Equivalent to the combination of CHIN 201 and 202. Students completing this course may take the third year Chinese courses. Letter grade only (A-F).

## 250. Introduction to the I-ching (3)

Prerequisites: Completion of GE Foundation requirements.
Focuses on central position of the I-ching in Chinese philosophical and spiritual life, and provide a system of knowledge to analyze and reason the pattern of changes governed by the immutable Law of Change.
Lecture in English, no knowledge of Chinese required. Letter grade only (A-F).

## 260. Introduction to Chinese Civilization (3)

Thematic survey of various aspects of Chinese civilization from its beginning to the present. Emphasizes not only the understanding of China's history but also the salient cultural elements that made China a great and distinctive country.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 301. Advanced Chinese (3)

Prerequisites: CHIN 202 or its equivalent, or consent of the instructor.
Study of modern spoken and written Chinese involving advanced expressions. Emphasis on reading, comprehension, vocabulary building and idiomatic usage.

## 302. Advanced Chinese (3)

Prerequisites: CHIN 301 or its equivalent, or consent of the instructor.
Study of modern spoken and written Chinese involving advanced expressions. Emphasis on reading, comprehension, vocabulary building and idiomatic usage.

## 321. Chinese Calligraphy (3)

Prerequisites: Consent of instructor. Completion of first-year Chinese or Japanese language or equivalent preferred.
Focuses on the history, development, artistry, and appreciation of Chinese calligraphy. Equal emphasis placed on hands-on practice in and outside of the classroom.

## 350. Business Chinese for Bilinguals (3)

Prerequisites: Native/near native proficiency in the Chinese language or consent of instructor.
Introduction of written business forms and exploration of business culture, practice, and etiquette. Students must have reading and writing ability in Chinese for general purposes.
360. Classical Chinese (3)

Prerequisites: CHIN 202 or equivalent Chinese reading proficiency or bilingual students.
Study of the basic vocabulary, grammatical structure, and style of classical Chinese. Introduction to various genres of classical literature: prose, poetry and other literary forms.

## 370. Chinese Literature in English Translation (3)

Readings in translation of representative works of the major literary genres in China covering both the classical and the modern periods. Previous knowledge of the language is highly desirable, but not necessary.

## 380. Topics in Chinese Linguistics (3)

Prerequisites: CHIN 102 or equivalent.
Chinese language viewed in its linguistic context, synchronically and diachronically. Introduction to descriptive grammar of modern standard Chinese, classical Chinese, the rise of written vernacular, dialect variations and sociolinguistic issues. Lecture/discussion.
Lecture/discussion.

## 382A. Imperial China (3)

Prerequisite: Completion of the GE Foundation.
Introduction to the classical civilization stressing the evolution of imperial institutions, the Chinese world order and China's traditional cultural heritage.
Same course as HIST 382A.

## 382B. Modern China (3)

Prerequisite: Completion of the GE Foundation. Chinese society from the 17th century to 1949.
Chinese society from the 17th century to 1949. Impact of imperialism, reform and revolutionary movements, and the background of Chinese communism.
Not open for credit to students with credit in HIST 482B. Same Course as HIST 382B.

## 390. Topics in Chinese Cultural Studies (3)

Prerequisites: Upper-division standing or consent of instructor. Interdisciplinary study of representative features of contemporary Chinese culture and society.
May be repeated to a maximum of 6 units with different topics.
410./510. Chinese Information Processing (3)

Prerequisite: CHIN 202 or equivalent. May be waived with instructor's consent.
Introduction to the fundamentals of Chinese web design, including word-processing, HTML, layout, and user interaction.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; Graduates register in CHIN 510.

## 430A./530A. Classical Chinese Fiction (3)

Prerequisite: Upper-division standing or consent of instructor. Study and examination of traditional Chinese fiction, ranging from major works of fiction from the Six Dynasties (317-588) through the Qing Dynasty (1644-1911).
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 430B./530B. Classical Chinese Drama (3)

Prerequisite: Upper-division standing or consent of instructor.
Study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from major works of Northern Drama (Zaju) and Southern Drama (Nanxi) to Peking Opera (Jingxi).
Undergraduates register in CHIN 430B; graduates register in CHIN 530B. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 430C./530C. Classical Chinese Poetry (3)

Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese poetry, ranging from major poetic works from antiquity to Qing Dynasty (1644-1911). Textual analysis and literary interpretation are emphasized.
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 451./551. Chinese Culture and Tradition (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency.
Designed as a capstone language class. Instruction of this class is in Mandarin.
Undergraduates register in CHIN 451; Graduates register in CHIN 551.

## 488. The Chinese Revolution (3)

Prerequisite: CHIN 382B or consent of instructor.
Theory and practice of revolutionary socialism in the People's Republic of China, historical and ideological background of the Chinese revolution, Mao and Maoism, politics, culture and society in China.
Same course as HIST 488.

## 490./590. Special Topics in Chinese (3)

Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 490; Graduates register in CHIN 590.
492./592. Senior Seminar (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency.
Introduction to research methods and study of conceptual and theoretical Chinese issues.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 492; Graduates register in CHIN 592.

## 499./599. Directed Studies in Chinese (1-3)

Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 6 units with different topics in different semesters.

## GRADUATE LEVEL

## 510./410. Chinese Information Processing (3)

Prerequisite: CHIN 202 or equivalent. May be waived with instructor's consent.
Introduction to the fundamentals of Chinese web design, including word-processing, HTML, layout, and user interaction.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; Graduates register in CHIN 510.

## 530A./430A. Classical Chinese Fiction (3)

Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese fiction, ranging from major works of fiction from the Six Dynasties (317-588) through the Qing Dynasty (1644-1911).
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 530B./430B. Classical Chinese Drama (3)

Prerequisite: Upper-division standing or consent of instructor. Study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from major works of Northern Drama (Zaju) and Southern Drama (Nanxi) to Peking Opera (Jingxi).
Undergraduates register in CHIN 430B; graduates register in CHIN 530B. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 530C./430C. Classical Chinese Poetry (3)

Prerequisites: Upper-division standing or consent of instructor. Study and examination of traditional Chinese poetry, ranging from major poetic works from antiquity to Qing Dynasty (1644-1911). Textual analysis and literary interpretation are emphasized.
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 551./451. Chinese Culture and Tradition (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency.
Designed as a capstone language class. Class instruction is conducted in Mandarin. Undergraduates register in CHIN 451; graduates register in CHIN 551.
Undergraduates register in CHIN 451; Graduates register in CHIN
551.
590./490. Special Topics in Chinese (3)

Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 490; Graduates register in CHIN 590.
592./492. Senior Seminar (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency.
Introduction to research methods and study of conceptual and theoretical Chinese issues.
May be repeated to a maximum of 6 units. Undergraduates register in CHIN 492; Graduates register in CHIN 592.

## 599./499. Directed Studies in Chinese (1-3 units)

Prerequisites: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 6 units with different topics in different semesters.

# CIVIL ENGINEERING AND CONSTRUCTION ENGINEERING MANAGEMENT <br> College of Engineering 

## Department Chair

Hsiao-Ling (Gene) Chu

## Department Office

Vivian Engineering Center (VEC) - 104

## Telephone

(562) 985-5118

## Website

http://www.csulb.edu/coe/ce/

## Faculty

## Professors

Hsiao-Ling Chu, Tesfai Goitom, Richard P. Nguyen, Joseph M. Plecnik, Chan-Feng (Steve) Tsai

## Associate Professors

El-Hami Nasr, Emelinda M. Parentela

## Assistant Professors

Nezih Gunal, Jeremy Redman, Antonella Sciortino, Tariq ShehabEldeen

## Undergraduate Advisors

Emelinda M. Parentela (CE), Tesfai Goitom (CEM)

## Graduate Advisor

Chan-Feng (Steve) Tsai
General Education Advising
See Academic Advising Center AS-124

## Administrative Support Coordinator

Ameeta Perera

Students desiring detailed information about Civil
Engineering or Construction Engineering
Management programs should contact the department office for referral to one of the faculty advisors.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Civil Engineering

The Civil Engineering Program provides students with a broad educational background essential to modern civil engineering practice and research. The program is built around a basic core of mathematics, natural and engineering sciences common to accredited professional engineering programs. It is planned to give a selection of basic engineering-science and design education to enable the graduate to begin a career in any of the various fields of practice in civil engineering or to prepare for graduate study in related engineering majors. It makes possible a systematic and integrated foundation in the principles of structural analysis and design, transportation systems, environmental systems, geo-technical engineering, water resources engineering, materials, construction engineering management, and information technology. Opportunity to explore a particular area of interest is offered in the wide selection of civil engineering design electives to permit students a sequence of courses related to the area of their choice.

## Bachelor of Science in Construction Engineering Management

The four-year program in Construction Engineering Management leads to the Bachelor of Science degree. Major emphasis is placed on organizing and managing the construction phase of society's efforts to improve the environment. The constructor is an important member of the building team and requires a professional knowledge of techniques, materials, equipment, job planning and cost control to add to the contributions of the planning and design professions. Graduates of this program can help supply the urgent needs of the construction industry and its related fields.

Every effort is made to provide a well-integrated program which will give the student the opportunity to develop the proficiencies necessary for a successful, professional career in construction. The program is also designed to accommodate students who may wish to enter the University in a four-year program, or who may wish to transfer credits earned at other colleges or approved technical or military service schools. It is recommended that prospective students, prior to submitting an application for admission, be advised by a member of the Construction Engineering Management faculty to discuss departmental requirements and the admission requirements of the University.

## Advisory and Development Council

The Department of Civil Engineering and Construction Engineering Management is supported by two Advisory and Development Councils:

## The Civil Engineering Advisory and Development Council

The Advisory Council consists of outstanding engineers and executives from industry and government in Southern California. Its function is to form a liaison between the University and industry and to keep the administration and faculty informed of modern engineering practices. This ensures that the curricula are kept up-to-date. It also advises on placement opportunities before and after graduation.

## Construction Engineering Management Advisory and Development Council

The advisory council, composed of leaders actively engaged in areas of construction with which the programs are concerned, continually provides information and guidance about industrial developments in methods, materials and techniques so that the programs reflect the best of current practices. The members examine various aspects of the programs and make recommendations in course content, methods and/or facilities. Present membership in the council is made up of representatives from the different sectors of the construction industry.

## ABET Accreditation

The Bachelor of Science in Civil Engineering is accredited by the Engineering Association Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) (Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7710, website: http://www.abet.org). Students enrolling in this program are strongly advised to meet with their undergraduate advisor as early as possible to become familiar with the details of the ABET requirements in math/sciences, humanities and social sciences areas, engineering sciences, and design.

## Bachelor of Science in Civil Engineering (code CE__BS01) (131 units)

## Mission

To educate and prepare students to succeed in the civil engineering profession by providing them with essential technical tools and skills which will enable them to perform current and future civil engineering tasks and to promote the need for life long learning.

## Objectives

1. Graduates will have the necessary analytical and experimental skills to perform in the civil engineering profession.
2. Graduates will be prepared to apply the theory and experimental tools to the solution of practical design problems.
3. Graduates will be provided with the knowledge to understand the role of civil engineers in the global and societal contexts and to recognize the need for life long learning.
4. Graduates will be educated in the potential ethical and social implications in civil engineering practice and foster communication and interaction skills with other professionals and community at large.

## Requirements

Minimum of 131 units required.
Lower Division: BIOL 200 or MICR 200; CHEM 111A; CE 130, 200, 205, 206; MATH 122, 123, 224; MAE 172; PHYS 151, PHYS 152 (or EE 210 and 210L).

Upper Division: GEOL 370; CE 335, 345, 346, 359, 364, 406, 407, 426, 437, 459, 481, 490; ECON 300; MATH 370A; MAE 330, 371, 373.

Six units of technical design electives from: CE 427, 438, $445,455,456,457,466,495$; two laboratories from: CE 336, 491, MAE 374; three units of technical electives from: CE 429, 435, 446, 458.

A grade of " $C$ " or better must be achieved in all required courses listed below.

CHEM 111A, MATH 122, 123, 224, 370A, PHYS 151, ECON 300, GEOL 370, MAE 172, 373, CE 130, 200, 205, 206, 335, 345, 359, and 490.

## Bachelor of Science in Construction Engineering Management (code ET__BS01) (134 units)

The four-year program in Construction Engineering Management leads to the Bachelor of Science degree. Major emphasis is placed on organizing and managing the construction phase of society's efforts to improve the environment. The constructor is an important member of the building team and requires a professional knowledge of techniques, materials, equipment, job planning and cost control to add to the contributions of the planning and design professions. Graduates of this program can help supply the urgent needs of the construction industry and its related fields.

Every effort is made to provide a well-integrated program which will give the student the opportunity to develop the proficiencies necessary for a successful, professional career in construction. The program is also designed to accommodate students who may wish to enter the University in a four-year program, or who may wish to transfer credits earned to other colleges or approved technical or military service Schools. It is recommended that prospective students, prior to submitting an application for admission, be advised by a member of the Construction Engineering Management faculty to discuss departmental requirements and the admission requirements of the University.

All Construction Engineering Management students must receive a minimum grade of " $C$ " in each of the prerequisite courses before enrolling in any Construction Engineering Management course. In addition to any other all-university requirements regarding grade point averages for graduation, a Construction Engineering Management student must achieve a minimum 2.0 average in all Construction Engineering Management courses.

## Requirements

Lower Division Basic Engineering Science Courses: MATH 122; ENGR 203; PHYS 100 A and B; CEM 121, 125, 130, 130L, 202, 204, 205, 205L.

Construction Engineering Management Courses:
Lower Division: ACCT 201or CEM 201, 225, 235, 235L.
Upper Division: CEM 300L, 304, 320, 324, 328, 335, 335L, 345, 365, 375, 404, 410, 421, 423, 425, 426, 427, 429, 431, 435, 438, 490; ECON 300; ENGR 310; MGMT 300.
Upper Division Elective Courses: Plus four units of approved electives selected in consultation with an advisor from:
A. Design-build Emphasis: CEM 373, 374, 409, 443
B. Facility Management Emphasis: CEM 409, 432, 433, 434, 436
C. Specialty Contractors: CEM 409, 465, 475

## Fieldwork Requirements

Fieldwork experience is required for the $B S$ in Construction Engineering Management, consisting of no less than three months full-time (or equivalent part-time) of employment in an approved industry or governmental agency. The student must hold a position equivalent to a technician or higher which affords the opportunity to exercise responsibility usually given to those who have completed two years of college. The fieldwork must be completed prior to graduation, be certified and approved by the faculty of the Department.

## Waste Engineering and Management Certificate (code CE_CT01)

The 24-unit Certificate Program in Waste Management is designed to provide the interested student or qualified practitioner with the very latest in education and training in the field of management of waste as well as related resource and energy recovery.

The program is conducted in cooperation with local engineering consulting firms and government agencies and could accommodate an internship of three units through directed study (CE 697).

The 24-unit certificate program may be taken (1) by a graduate as a matriculated student, (2) admitted to a CSULB graduate degree program, or admitted as an unclassified graduate student.

Regardless of how the program is taken, a grade of " $C$ " or better must be obtained in all courses applied to the certificate, with an overall G.P.A. of 3.0. Courses taken on Credit/No Credit or Audit basis will not apply to the certificate. Graduate students taking courses in this program are reminded that grades received will be included in calculations of the M.S. requirement.

## Requirements

1. Completion of an accredited baccalaureate degree in engineering or a related scientific discipline, with appropriate prerequisites to be met.
2. Satisfactory completion of 24 units which must include 15 units selected from C E 531, 543, 565; Public Policy and Administration 590 (Waste Management and Policy Regulation); a minimum of nine units (electives) selected from the following: C E 504, 562, 563, 564, 566, 567, 569; CH E 555, and 585.. At least one course should normally be from non-Civil Engineering offerings.
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
4. Filing of a program application card with Admissions and Records, and filing for the Certificate at least one semester prior to completion.

## Facilities Operations Certificate (code ET__CT01)

Advisor - Tesfai Goitom (Civil Engineering)
Department Office - VEC 301
Telephone - (562) 985-8020
The Certificate Program in Facilities Operations is designed to qualify the graduate to serve in plant engineering, industrial construction coordination, facilities development and design, plant layout, and facilities project management. Examples of the myriad positions available to the graduate of this program include facilities planner, construction supervisor, facilities or plant supervisor, facilities project analyst, and facilities designer analyst.

This program provides the Facilities Operations graduate with a depth of technical knowledge in facilities operationsoriented technical courses, as well as the knowledge of behavioral sciences essential for managing technical functions.

## Requirement

1. The Certificate in Facilities Operations may be earned concurrently with or subsequent to the baccalaureate degree.
2. This program is open to all majors who have fulfilled the prerequisites as stated below.
3. The program requires a total of 25 units as specified below.
A. The completion of supporting technical courses chosen in consultation with an advisor.
B. 25 units are required from the following courses: CEM 410 or ET 410, CEM 121, 320, 374, 409, 431, 432, 433, 434, 436.
4. Any deviation from this program requires the written permission of the program advisor.

## GRADUATE PROGRAMS

## Master of Science in Civil Engineering (code CE__MS01)

## Prerequisites

1. A bachelor's degree in an accredited curriculum in civil engineering; or
2. A bachelor's degree in engineering, a natural science or other appropriate discipline with the requirement that essential undergraduate prerequisites in civil engineering be satisfied with a minimum GPA of 2.7 in the last 60 semester units attempted;
3. Graduate students must consult with the graduate advisor for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.

## Advancement to Candidacy

1. Removal of all undergraduate deficiencies as determined by the Department Graduate Studies Committee;
2. Completion of at least 12 graduate units at CSULB; minimum GPA of 3.0; currently enrolled;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

## Requirements

Completion of a minimum of 30 units beyond the bachelor's degree and graduate coursework as follows:

1. A minimum of 24 units in engineering, probability and statistics and mathematics courses with 18 units of 500-/600-level courses in Civil Engineering. Within these 18 units a student may include six units of CE 698 or three units of CE 697; Students are required to complete successfully either CE 697 or CE 698;
2. Six units of electives selected from approved upper-division or graduate courses in appropriate subjects;
3. Fulfill one of the following alternatives:

I - Write and present orally a thesis to be approved by the thesis committee;
II - Pass a written comprehensive examination on coursework in the student's program.

## Civil Engineer Degree (code CE__CE01)

The program leading to the Civil Engineer degree offers the qualified student professionally oriented courses with greater concentration in civil engineering than is required by the master of science in civil engineering. This program encourages appropriate advanced studies in other disciplines of the University.

## Prerequisites

1. A master of science degree in civil engineering from an accredited institution with a minimum GPA of 3.5 ; or
2. A bachelor of science degree in civil engineering from an accredited institution with a minimum GPA of 3.0 ; or
3. A bachelor of science degree in engineering, mathematics, physical sciences or other appropriate disciplines from an accredited institution with a minimum GPA of 3.0 with the requirement that essential undergraduate prerequisites in civil engineering will be satisfied prior to commencing the student's civil engineering degree program;
4. The graduate student must consult with the graduate advisor and Civil Engineering graduate brochure for information concerning departmental procedures and requirements and for appropriate approvals of the course of study prior to enrolling in courses in the student's graduate program.
Exceptional cases not meeting the above minimum GPA may be considered by the Department Graduate Studies Committee.

## Advancement to Candidacy

1. A Department Graduate Studies Committee, consisting of the graduate student's advisor and at least two other faculty members, will be responsible for the formulation and supervision of each individual graduate student's program;
2. The committee shall determine candidacy admission, and requirements as to removal of undergraduate and/or graduate prerequisite deficiencies;
3. Prior to determining advancement requirements the committee may, at its discretion, require the student to take an examination in the chosen area.

## Requirements

1. Completion of a minimum of 60 units beyond the bachelor's degree and graduate courses, approved by the student's Department Graduate Studies Committee including:
A. A minimum of 36 units of 500- and 600 -level civil engineering courses including a thesis of nine units to be written and presented orally;
B. Twenty-four units of 400-, 500- and 600-level approved electives.
2. No more than 30 units completed before advancement to candidacy may be used in completing the requirements for the CE degree.

## Courses (C E)

## LOWER DIVISION

## 130. Surveying and Mapping (2)

Corequisite: MAE 172, or consent of instructor.
Theory and practice of plane surveying, including the use of instruments for measuring distances, angles, and elevations. Plotting of surveying data and topographic mapping. Study and interpretation of maps. Integration of data with surveying software.
(Lecture-Problems 1 hour, Fieldwork 3 hours) (CAN ENGR 10) Letter grade only (A-F).

## 200. Materials for Civil Engineering (2)

Prerequisites: CHEM 111A, PHYS 151. Prerequisite or corequisite: CE 205.
Basic properties of materials in civil engineering, including concrete, masonry, steel, wood, asphalt and composites.
(Lecture 1 hour, Laboratory 3 hours) Letter grade only (A-F).
205. Analytical Mechanics I (Statics) (3)

Prerequisite: PHYS 151. Prerequisite or corequisite: MATH 123.
Application of the mechanics of equilibrium to force systems using analytical and graphical solutions of problems involving structures and machines.
Letter grade only (A-F). (Lecture-Problems 3 hours) (CAN ENGR 8)
206. Computer Programming and Civil Engineering Applications I (2)
Prerequisites: MATH 122, PHYS 151.
Introduction to programming and application of computers to elementary civil engineering problems.
Letter grade only (A-F). (Lecture-Problems 1 hour, Laboratory 3 hours)

## UPPER DIVISION

## 306. Computer Programming and Civil Engineering

 Applications II (2)Prerequisite: CE 206.
Application of numerical methods and computer programming to the solution of civil engineering problems.
Letter grade only (A-F). (Lecture-Problems 1 hour, Laboratory 3 hours)
335. Fluid Mechanics (3)

Prerequisites: MATH 224, C E 205 or consent of instructor.
Properties of fluids, fluid statics, fluid dynamics, dynamic similitude, flow of compressible and incompressible fluids in closed conduits, uniform flow in prismatic open channels.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 336. Fluid Mechanics Laboratory (1)

Prerequisite: ENGL 100 or equivalent. Prerequisite or corequisite: C E 335.
Experiments in and study of the phenomena of fluid flow. Letter grade only (A-F). (Laboratory 3 hours)

## 345. Geotechnical Engineering I (3)

Corequisites: MAE 373; GEOL 370.
Soil mechanics applied to engineering structures. Soil exploration, identification, classification, drainage, stability and bearing capacity.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 346. Geotechnical Engineering Laboratory (1)

Prerequisite: ENGL 100 or equivalent. Corequisite: CE 345.
Laboratory investigation and experiments in the phenomena of soil mechanics.
Letter grade only (A-F). (Laboratory 3 hours)

## 359. Structural Analysis I (3)

Prerequisite: MAE 373.
Analysis of structures including trusses, beams, and frames, conjugate beam, virtual work, energy methods, approximate methods, and influence lines. Use of code based finite element computer programs in analysis of frame and truss type structures. (Lecture-Problems 3 hours) Letter grade only (A-F)

## 364. Environmental Engineering (3)

Prerequisite or corequisite: CE 335; Prerequisite: ENGL 100 or equivalent.
Introduction to the fundamentals of environmental engineering. Models of transport and transformation of air and waterborne impurities. Emphasis on theory and design of physical, chemical and biological unit processes used in water quality control technologies. Standard laboratory methods of water and wastewater analysis.
(Lecture 2 hours, Laboratory 3 hours) Letter grade only (A-F).

## 370. Analytical Mechanics (3)

Prerequisites: PHYS 151; Prerequisite or corequisite: MATH 123.
Fundamental principles of statics, kinematics and kinetics, with application to idealized structures and systems.
Intended for Electrical Engineering majors. Not open for credit to Civil or Mechanical Engineering majors. Letter grade only (A-F). (Lecture-Problems 3 hours)

## 404. Laboratory Techniques (1)

Prerequisites: ENGL 100 or equivalent, senior standing in civil engineering and consent of instructor.
Study in the techniques of organizing and directing of the civil engineering laboratory.
May be repeated to maximum of 3 units. Letter grade only (A-F). (Conference 1 hour, Laboratory 3 hours)

## 405. Special Topics in Civil Engineering (3)

Prerequisite: Senior standing in civil engineering or consent of instructor.
Selected topics from recent advances in civil engineering.
Course content will vary from year to year. Letter grade only (A-F). May be repeated to a maximum of 6 units. (Lecture-Problems 3 hours)
406./514. Engineering Economy and Administration (3) Prerequisite or Corequisite: ECON 300 or consent of instructor.
Engineering management principles and economic analysis: with time value of money, after-tax analysis for rate of return.
Graduate students will be required to do an additional assignment. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 407. Probability and Statistics in Civil Engineering (2)

Prerequisites: MATH 370A and senior standing.
Analysis of uncertainties, and applications of the basic theories of probability and statistics in civil engineering areas of geotechnical, environmental, water resources, structural and transportation engineering.
(Lecture-problems 1 hour, Laboratory 3 hrs) Letter grade only (A-F).
408. Special Problems (1-3)

Prerequisite: Senior standing in civil engineering.
Assigned topics in technical literature or laboratory projects and report on same.
Letter grade only (A-F).

## 411. Computer Aided Design and Analysis for Civil Engineers (3)

Prerequisite: CE 206 and senior standing.
Techniques for utilizing selected computer models currently recognized by the civil engineering profession. Case studies, capabilities and limitations of these models. Application of selected models in the planning, analysis and design of civil engineering projects.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 426. Transportation Engineering (3)

Prerequisites: CE 345, 406 and Senior standing, or consent of instructor.
Operation of various modes of transportation; Characteristics of the driver, pedestrian, vehicle and the road; fundamental principles of traffic flow; introduction to intersection design and control, planning, and geometric design; transportation issues and safety.
(Lecture-Problems 3 hours.) Letter grade only (A-F).

## 427. Highway Design (3)

Prerequisite: CE 345.
Geometric design of highways and streets. Route location and earthwork computation. Introduction to roadside and pavement design. Design problems in highway engineering.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 429./529. Traffic Engineering (3)

Prerequisite: CE 426 or consent of instructor.
Capacity and level of service analyses of highway facilities.
Intersection signal timing design. Introduction to traffic control devices. Volume, speed and delay studies. Use of traffic data for design, planning and operational levels of analyses.
Graduate students required to do extra projects. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 435. Hydrology and Water Resources Engineering (3)

 Prerequisite: C E 335.Fundamental surface and ground water hydrology concepts and quantitative methods. Selected topics and procedures of the hydrological cycle. Planning, development and management of water resource surface systems.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 437. Engineering Hydraulics (3)

Prerequisites: C E 335, MATH 370 A.
Theory and analysis of steady uniform and non-uniform flow in open conduits. Energy and momentum principles, critical flow computations and applications, design of channels, computations of gradually varied, spatially varied and rapidly varied flows.
Letter grade only (A-F). (Lecture-Problems 3 hours)
438. Hydraulic Engineering Design I (3)

Prerequisite: CE 335.
Application of hydraulic principles to the design of dams, water courses, water systems and their related structures and devices. Letter grade only (A-F). (Lecture-Problems 3 hours)
445. Geotechnical Engineering II (3)

Prerequisites: CE 345, 346.
Methods of design and construction of various geotechnical engineering projects utilizing theory of soil mechanics.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 446./542. Geotechnical Projects (3)

Prerequisite: CE 345.
Design and problem solving oriented geotechnical projects utilizing soil mechanics theory and experimental methods according to the state-of-the-art practice. Graduate students required to do additional readings and write a research term paper to deal with current topics in geotechnical engineering.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 455. Structural Steel Design (3)

## Prerequisite: C E 458.

Detailed design of components with typical codes and specifications.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 456./516. Timber Design (3)

Prerequisite: CE 359. Corequisite: CE 458.
Design of stressed skin panels, supporting members, frames and their connections. Applications to timber structures and concrete framework. Graduate students will be required to do required readings and term paper linking material and structural behavior to design codes, applications.
(Lecture-Problems 3 hours) Letter grade only (A-F).
457./517. Reinforced Masonry Design (3)

Prerequisite: CE 359. Corequisite: CE 458.
Theory, design and application of reinforced masonry (brick and block) in compliance with latest Building Code. Earthquake provisions. Construction and specifications. Design of high rise buildings, industrial buildings and retaining walls. Graduate students required to do a design project and assigned readings from journals and research papers.
(Lecture-Problems 3 hours) Letter grade only (A-F).
458. Structural Analysis II (3)

Prerequisite: CE 359.
Solution of indeterminate truss and frame structures using moment distribution and slope deflection methods. Introduction to matrix methods. Energy theorems and virtual work principles. Use of code based finite element computer programs in the analysis of indeterminate structural systems including frames, trusses, plates and shells.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 459. Reinforced Concrete Design I (3)

Prerequisites: C E 200 and 359.
Theory and design of structural elements of reinforced concrete, analysis by working stress and ultimate strength design theories. Letter grade only (A-F). (Lecture-Problems 3 hours)

## 466. Environmental Systems Design (3)

Prerequisites: CE 364 or consent of instructor.
Principles of environmental systems design. Design and planning of systems for water distribution, wastewater collection and storm water management.
Letter grade only (A-F). (Lecture-Problems 3 hours)

## 469./569. Hazardous and Toxic Waste Engineering Management (3)

Prerequisite: Consent of instructor.
Engineering analysis of hazardous and toxic waste problems of contemporary interest. Current technical specifications at federal, state and local level. Engineering planning, design and management considerations. Detailed engineering, chemical, biological and risk-cost effectiveness and effect on public health. Term project for graduate students.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 481. Professional Practice In Civil Engineering (1)

Prerequisite: Senior standing.
Topics related to practice of civil engineering profession. Professional society meetings and readings.
Letter grade only (A-F). (Lecture-Problems 1 hour)
490. Senior Design Project (3)

Prerequisites: Fulfillment of the GWAR, completion of all 300-level engineering courses for the civil engineering major and consent of department undergraduate advisor.
Normally taken in the last year of the undergraduate program. A supervised design group project, incorporating all aspects from concept to completed design and oral presentations. Technical aspects, social, environmental, and economic issues considered. Ethical concepts discussed.
(Lecture-Problems 2 hours, Design laboratory 3 hours) Letter grade only (A-F).
491. Structures Laboratory (1)

Prerequisites: CE 359 and ENGL 100 or equivalent. Prerequisites or corequisites CE 455, CE 459; Laboratory examination of structural concepts.
Utilize computer simulation modeling techniques in combination with structural tests.
Letter grade only (A-F). (Laboratory 3 hours)

## 495. Seismic Design I (3)

Prerequisites: CE 455, 459.
Elements of lateral-force design in steel, concrete, masonry, and timber structures. Application of current building codes.
Letter grade only (A-F). (Lecture 3 hours)
497. Senior Problem Directed Studies (2)

Prerequisites or corequisites: CE 406, 481, 490.
Directed study on assigned topics or lab/field studies practicum and report on same.
Letter grade only (A-F).

## GRADUATE LEVEL

## 500. Engineering Analysis I (3)

Prerequisites: MATH 370A.
Application of analytical methods to engineering problems.
Differential equations and series solutions, Bessel functions and Legendre polynomials, boundary value and eigenvalue problems, Fourier series, partial differential equations, vector analysis. (Lecture-Problems 3 hours) Letter grade only (A-F).
501. Engineering Analysis II (3)

Prerequisite: MATH 370A.
Analysis of engineering mechanics by matrix theory and complex variables; introduction to numerical techniques.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 502. Finite Element Methods II (3)

Prerequisite: Consent of instructor.
Theory of finite element methods. Discretization of continuum, element stiffness matrices and direct stiffness formulation. Application to frame, plane stress and strain, plate and shell problems using SAP.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 503. Selected Topics in Civil Engineering (3)

Prerequisites: Graduate standing and consent of instructor.
Selected topics, with laboratory work required, from the most recent developments in civil engineering. Course content will vary from year to year and the specific topic will be recorded on the student's transcript.
May be repeated to a maximum of 6 units. No more than six units of CE 503 or CE 504 may be counted for the Master's Degree. (Lecture-Problems 2 hours, Laboratory 3 hrs ) Letter grade only (A-F).

## 504. Advanced Topics in Civil Engineering (3)

Prerequisite: Graduate standing or consent of instructor.
Selected topics from recent developments in civil engineering. Course content will vary from year to year.
May be repeated to a maximum of 6 units. No more than six units of CE 503 and/or CE 504 may be counted for the master's degree. (Lecture-Problems 3 hrs ) Letter grade only (A-F).

## 508. Probabilistic and Statistical Methods in Engineering Applications (3)

Prerequisite: Graduate standing or consent of instructor. Civil Engineering applications of nondeterministic models and decision theory. Applications of proven statistical computer programs.
(Lecture-Problems 3 hours) Letter grade only (A-F).
509. Computational Methods in Civil Engineering (3)
Prerequisite: Graduate standing or consent of instructor.

Prerequisite: Graduate standing or consent of instructor.
Numerical analysis and computer methods applied to various areas of civil engineering. Application of proven computer methods, including special problem-oriented languages. (Lecture-Problems 3 hrs ) Letter grade only (A-F).
514./406. Engineering Economy and Administration (3) Prerequisite or Corequisite: ECON 300 or consent of instructor.
Engineering management principles and economic analysis: with time value of money, after-tax analysis for rate of return.
Graduate students will be required to do an additional assignment. (Lecture-Problems 3 hours) Letter grade only (A-F).
516./456. Timber Design (3)

Prerequisite: CE 359. Corequisite: CE 458.
Design of stressed skin panels, supporting members, frames and their connections. Applications to timber structures and concrete formwork.
Graduate students will be required to do required readings and term paper linking material and structural behavior to design codes, applications. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 517./457. Reinforced Masonry Design (3)

Prerequisite: CE 359. Corequisite: CE 458.
Theory, design and application of reinforced masonry in compliance with Uniform Building Code. Earthquake provisions. Construction and specifications. Design of high rise buildings, industrial buildings, retaining walls. Advanced students will be required to do a design project using a response spectrum of a two-story building; assigned readings from journals and a research term paper.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 520. Seaport Planning and Design (3)

Prerequisite: CE 426 or consent of instructor.
Planning and design of seaports and facilities as access systems.
Support transportation, use analysis and ocean transport crafts.
Site selection and comprehensive planning.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 522. Transportation Planning (3)

Prerequisite: C E 426 or consent of instructor.
Planning of fixed facilities for various modes of transportation in urban areas. Engineering administration and integration of transportation systems.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 526. Pavement Engineering (3)

Corequisite: C E 427 or consent of instructor.
Aggregate, binder systems. Theory and design of pavement structures. (Lecture-Problems 3 hours) Letter grade only (A-F).
529./429. Traffic Engineering (3)

Prerequisite: CE 426 or consent of instructor.
Capacity and level of service analyses of highway facilities. Intersection signal timing design. Introduction to traffic control devices. Volume, speed and delay studies. Use of traffic data for design, planning and operational levels of analysis. Graduate students required to do extra projects.
(Lecture-Problems 3 hours) Letter grade only (A-F).
531. Groundwater and Seepage (3)

Prerequisites: C E 335, 345 or consent of instructor.
Theory and application of ground-water flow and seepage through earth structures.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 532. Sediment Transportation (3)

Prerequisite: C E 437.
Phenomena of sediment transportation related to streams and marine environments.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 535. Advanced Hydrology (3)

Prerequisite: Graduate standing or consent of instructor.
Theory and application of surface hydrology. Hydrologic statistics, dynamic wave routing, frequency analysis and risk analysis. Simulation of design flows, flood forecasting, flood plain analysis and hydrologic design. Mathematical models, numerical methods in analysis and evaluation.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 536. Urban Surface Water Management (3)

Prerequisite: CE 437 or consent of instructor.
Planning and design of facilities to control flooding, erosion, sedimentation, and non-point source pollution for urban storm water runoff management. Presentation of analysis and design methodologies, structural and non-structural measures for management, and master planning principles.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 538. Hydraulic Engineering Design II (3)

Prerequisites: C E 437, 438 or consent of instructor.
Design of water supply networks, hydraulic transitions, controls and structures. Hydraulic power conversion. River engineering. Water resources systems.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 542./446. Geotechnical Projects (3)

Prerequisite: CE 345.
Design and problem solving oriented geotechnical projects using soil mechanics theory and experimental methods. Emphasis placed on fields of slope stability, pile foundation, seepage and soil dynamics. Graduate students will be required to do additional readings from journals, research reports and advanced texts, and write a research term paper to deal with current topics in geotechnical engineering.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 543. Waste Management and Landfill Engineering (3)

Prerequisite: Graduate standing or consent of instructor.
Advanced principles and practices of landfill engineering for waste management and subsurface flow problems. Presentation of research and case studies in geotechnical aspects of waste management and landfill engineering.
(Lecture-Problems 3 hours) Letter grade only (A-F).
545. Rock Mechanics in Engineering Practice (3)

Prerequisites: CE 345, 346, or consent of instructor.
Principles of rock mechanics with emphasis on engineering practices for problems of slopes, foundations and tunnels.
Same course as GEOL 545. (Lecture-Problems 3 hours) Letter grade only (A-F).
546. Theory and Design of Foundation Structures (3)

Prerequisite: CE 345 or consent of instructor.
Foundation, explorations, stress and deformation relationships and design of various footings, piles, piers and caissons. Analysis of lateral loads and design of retaining structures, machinery foundations and foundation dewatering.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 547. Soil Dynamics (3)

Prerequisite: CE 345 or consent of instructor.
Theories and field behaviors of dynamically loaded foundation systems and soil responses with emphasis on engineering applications.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 548. Geotechnical Engineering III (3)

Prerequisite: C E 345 or consent of instructor.
Stress-strain time relationship of soils. Theory and methods of analysis with special emphasis on the applications and limitations in soil engineering.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 551. Prestressed Concrete (3)

Prerequisite: C E 459.
Principles of prestressed concrete. materials used, applications to structural design, review of existing specifications.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 552. Theory of Plates and Shells (3)

Prerequisite: Completion of C E Graduate MATH Requirement. Review of theory of elasticity; formulation of general equation of bending of thin elastic plates; methods of obtaining exact and approximate solutions; membrane and bending theories of shells with emphasis on cylindrical shells and shells of revolution.
(Lecture-Problems 3 hours) Letter grade only (A-F).
553. Behavior and Design of Steel Structures (3)

Prerequisite: C E 455.
Study of torsion, unsymmetrical bending, stability. Plastic design, code provisions and commentary. Design of complete structural systems in steel.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 555. Seismic Design II (3)

Prerequisite: C E 495 or consent of instructor.
Characteristics of earthquakes and seismicity response spectra, modal methods of analysis, practical examples of elastic and inelastic response of structures to earthquake motions. New development in codes, computer applications.
(Lecture-Problems 3 hrs ) Letter grade only (A-F).

## 557. Advanced Structural Analysis (3)

Prerequisite: C E 458 or consent of instructor.
Virtual forces and displacements, strain energy and complementary energy. Force and displacement matrix methods. Computer applications to planar and space frames, trusses, floor beams and shear wall systems.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 558. Dynamics of Structures (3)

Prerequisite: CE 458 or consent of instructor.
Response of structures and structural components having one or more degrees of freedom. Damping and inelastic action; earthquake and nuclear blasts, dynamic resistance of structural elements and structures, elastic and inelastic response of structures.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 562. Water and Wastewater Treatment Design I (3)

Prerequisite: C E 364 or consent of instructor.
Design of physical and chemical processes for water and wastewater treatment, with emphasis on water treatment plants. (Lecture-Problems 3 hours) Letter grade only (A-F).
563. Water and Wastewater Treatment Design II (3)

Prerequisite: C E 562 or consent of instructor.
Design of chemical and biological processes for water and wastewater treatment with emphasis on wastewater treatment. (Lecture-Problems 3 hours) Letter grade only (A-F).
564. Environmental Health Engineering (3)

Prerequisite: CE 364 or consent of instructor.
Health and safety aspects of environmental quality and related engineering systems. Regulatory aspects. Projects and case studies.
(Lecture-Problems 3 hours) Letter grade only (A-F).
565. Environmental Waste Engineering (3)

Prerequisite: CE 364 or consent of instructor.
Generation, treatment, resource recovery and disposal of industrial wastes, solid wastes and hazardous materials.
Letter grade only (A-F). (Lecture-Problems 3 hrs )

## 566. Unit Operations in Environmental Engineering (3)

Prerequisite: CE 364 or consent of instructor.
Civil engineering applications of the fundamentals of chemical reactions, kinetics of biochemical systems, gas transfer operations, liquid/solid separations, solubility equilibria, adsorption, ion exchange and membrane processes.
(Lecture-Problems 3 hours) Letter grade only (A-F).
567. Liquid and Solid Waste Project Planning and Management (3)
Prerequisite: CE 364 or consent of instructor.
The presentation of research and case studies of liquid and solid waste project planning and management.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 569./469. Hazardous and Toxic Waste Engineering Management (3)

Prerequisite: Consent of instructor.
Engineering analysis of hazardous and toxic waste problems of contemporary interest. Current technical specifications at federal, state and local level. Engineering planning, design and management considerations. Detailed engineering, chemical, biological and risk-cost effectiveness and effect on public health. Current literature. Case studies.
Term project for graduate students (Research paper/design project.) (Lecture-Problems 3 hours) Letter grade only (A-F).

## 570. Engineering Management Principles and Practices (3)

Prerequisites: CE 406, graduate standing or consent of instructor.
Transition of engineers into management. Analysis of technical manager's functions at lower and middle levels as support to corporate management. Principles of engineering management and applications to private and public sector organizations. Case studies of practices in different technical organizations.
(Lecture 3 hours) Letter grade only (A-F).
571. Construction Planning and Cost Control (3)

Prerequisite: Graduate standing or consent of instructor.
Planning, scheduling and resource allocation for a complex construction project. Topics include traditional critical path method, advanced computer expert systems and optimization techniques for construction planning and cost control.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 573. Engineering Specifications, Law and Contracts (3)

Prerequisite: Graduate standing or consent of instructor.
Application of law of contracts to construction contracts. Legal matters of concern to engineers.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 574. Methods, Analysis and Design of Construction

 Operations (3)Prerequisite: CE 571 or consent of instructor.
Equipment, methods, analysis and design of a construction operation, from site work improvement and data acquisition to modeling and design. Particular attention will be paid to interfacing between design and construction activities and work method development, productivity and safety.
(Lecture-Problems 3 hours) Letter grade only (A-F).
576. Construction Organization and Management (3)

Prerequisite: Graduate standing or consent of instructor.
An introduction to construction organization, control concepts and labor, emphasizing the business aspects of construction engineering management. Topics include legal framework, finance in construction management, labor, accounting and other decision making in the construction business.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 577. Business Aspects and Finance of Construction

 Projects (3)Prerequisite: CE 406 or consent of instructor.
Economics and business aspects in construction, financing structure, methodology, and project financial evaluation. Emphasis is on financial aspects in property acquisition, development, construction, and project management.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 578. Management of Advanced Technologies in Construction (3)

Prerequisite: Consent of instructor.
New development of advanced technology as applied to construction industry. Productivity and competitiveness in construction on the basis of new technology. Comparison of construction innovation in the U.S., Japan, and other countries.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 582. Management of Productivity and Quality (3)

Prerequisite: CE 570 or consent of instructor.
System approaches to quality and productivity in construction. Total Quality Management (TQM) in construction engineering and management. Investigation of methods and strategies for improving competitiveness at the company level. Domestic and international competitiveness in the construction business.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 629./729. Traffic Operations (3)

Prerequisite: CE 429 or CE 529, or consent of instructor. Principles of traffic flow, signal timing optimization, signal coordination, and traffic.
Graduates enroll in CE 629; post graduates enroll in CE 729. Postgraduate students will be required to do additional work (LectureProblems 3 hours) Letter grade only (A-F).

## 630./730. Mathematical Modeling in Hydraulic Engineering (3)

Prerequisite: CE 437 or consent of instructor.
Numerical techniques for solving hydraulic problems in water supply, waste water disposal and storm drainage systems. Prediction of important parameters by mathematical modeling on problems encountered in artificial channels, rivers, estuaries and marine environments.
M.S. students register in CE 630; Ph.D. students register in CE 730. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 640./740. Mathematical Modeling in Geotechnical Engineering (3)

Prerequisite: Graduate standing or consent of instructor.
Mathematical modeling techniques used in geotechnical engineering. Application of proven computer programs.
M.S. students register in CE 640; Ph.D. students register in CE 740. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 696. Research Methods (1)

Prerequisite: Candidacy or consent of instructor.
Bibliographical and library techniques and resources. Preparation and presentation of theses and directed studies technical papers. Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisite: Graduate standing. Corequisite: CE 696 or written consent of directed studies advisor.
MSCE and MSE degree candidates in Civil Engineering and Interdisciplinary Areas need to have either CE 697 or CE 698 as their program requirement. Theoretical and experimental problems in civil engineering requiring intensive analysis.
Letter grade only (A-F).

## 698. Thesis (2-6)

Prerequisite: Admission to candidacy for degree of master of science in civil engineering. Corequisite: C E 696 or written consent of faculty advisor.
Planning, preparation and completion of a thesis and/or project in the field of civil engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
699. Thesis (3-9)

Prerequisite: Admission to candidacy for degree of Civil Engineer. Corequisite: C E 696 or written consent of faculty advisor.
Planning, preparation and completion of a thesis in the field of civil engineering practice.
Letter grade only (A-F). May be repeated to a maximum of 9 units.

## 729./629. Traffic Operations (3)

Prerequisite: CE 429 or CE 529, or consent of instructor. Principles of traffic flow, signal timing optimization, signal coordination, and traffic.
Graduates enroll in CE 629; post graduates enroll in CE 729. Postgraduate students will be required to do additional work (LectureProblems 3 hours) Letter grade only (A-F).

## 730./630. Mathematical Modeling in Hydraulic Engineering (3)

Prerequisite: CE 437 or consent of instructor.
Numerical techniques for solving hydraulic problems in water supply, waste water disposal and storm drainage systems. Prediction of important parameters by mathematical modeling on problems encountered in artificial channels, rivers, estuaries and marine environments.
M.S. students register in CE 630; Ph.D. students register in CE 730. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 740./640. Mathematical Modeling in Geotechnical Engineering (3)

Prerequisite: Graduate standing or consent of instructor.
Mathematical modeling techniques used in geotechnical engineering. Application of proven computer programs.
M.S. students register in CE 640; Ph.D. students register in CE 740. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

## Construction Engineering Management Courses (CEM)

## LOWER DIVISION

## 121. Construction Drawing I (2) F

Use of scale, drawing instruments, lettering and drawing media. Interpretation of plan, elevation, section, perspective and isometric drawings. Blueprint symbols, abbreviations, terminology. Basic design parameters as required by the building code. Familiarity with reference materials and texts.
(Lecture 1 hr, laboratory 3 hrs) Letter grade only (A-F).

## 125. Fundamentals of Construction (2)

Survey of the professional activities and environments of Construction Engineering Management. Overview of residential, commercial, institutional and industrial construction areas of focus to include type of foundations, equipment, material, contract documents and working drawings. Overview of the approval processes.
(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

## 130. Construction Surveying (1)

Prerequisites: CEM 121, 125. Corequisite: CEM 130L.
Fundamentals of surveying methods as applied to construction layout. Use of level and transit for location and control of structures, vertical and horizontal control, area determination, care and use of instruments.
(Lecture-Problem 1 hour) Letter grade only (A-F).
130L. Construction Surveying Laboratory (1)
Prerequisites: CEM 121, 125; Corequisite: CEM 130.
Laboratory exercises on land measurement, differential and profile leveling, construction layout and plotting profiles using tape, leveling and transit instruments.
(Laboratory 3 hours) Letter grade only (A-F).

## 201. Cost Accounting for Construction Engineering (3)

Theoretical Practical and concepts of cost accounting. Variable and fixed costs, break-even point, interrelationships of cost, volume and profits; job-order accounting, general and flexible budgeting, standard costs; product costing methods; cost allocation; inventory planning; control and valuation; joint product.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 202. Probability and Statistics for Construction Engineering Management (3)

Prequisite: High School Algebra.
Statistics and probability theories, sampling, correlation, regression applied to Construction Engineering Management. Laboratory. (Simulation using statistical packages)
(Lecture-Discussion 3 hours) Letter grade only (A-F).
204. Applied Mechanics-Statics (3)

Prerequisites: MATH 122 and PHYS 100A
Force systems acting on a structures, moments, equilibrium, centroids, trusses, beams, cables, frames, machines, friction, section properties, masses, both U.S. and S.I. units of measurements.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

## 205. Computer Systems and Programming (1)

Corequisite: CEM 205L.
Overview of computer systems, computer hardware, and software development. Hardware topics include updated coverage of the central processing unit and memory, input/output devices, storage mechanism, and communication technology. Software topics include programming and languages, operating systems, and systems analysis and design. A programming language will be used in lab.
(Lecture - discussion, exercise, 1 unit) Letter grade only (A-F). Same as ET 205.

## 205L. Computer Systems and Programming Lab (1)

Corequisite: CEM 205.
Laboratory exercises in computer programming to solve problems in business, manufacturing, research and simulation. An object-oriented programming language will be used for these activities.
(Laboratory 3 hours) Letter grade only (A-F). Same as ET 205L

## 225. Residential and Light Commercial Construction

 Practices (2)Prerequisites: CEM 130, 130L.
Basic skills and techniques required to produce construction contract documents conforming to current building codes and standards, specification, working drawings, bids, addenda and change orders in residential and light commercial buildings, construction practices in residential and light commercial structures - building systems, equipment, materials, techniques and quantities take off.
Field trips required (one residential and one light commercial construction sites). (Seminar 1 hour and Activity 2 hours) Letter grade only (A-F).

## 235. Concrete Construction (1)

Prerequisite: CEM 125; Corequisite: CEM 235L.
Modern concepts which form the basis for solution to problems of concrete construction. Includes significant developments in concrete chemistry and strength theory. Concrete mix design, physical properties of concrete, use of admixtures, concrete batching, curing and testing. Includes physical testing of designed mixes.
(Lecture-Discussion 1 hour)
235L. Concrete Construction Laboratory (1)
Prerequisite: CEM 125; Corequisite: CEM 235.
Laboratory exercises in support of CEM 235, Concrete Construction. Develop concrete mix designs and prepare concrete samples for testing, such as compressive strength, slump and air entrainment, and aggregate testing.
(Laboratory 3 hours) Letter grade only (A-F).

## UPPER DIVISION

## 300L. Computer Applications for Construction Engineering Management Laboratory (1)

Prerequisites: CEM 205, 205L.
Laboratory exercises in computer systems to control cost scheduling, manpower, and materials in construction operation in building industry, development of construction management games.
(Laboratory 3 hours) Letter grade only (A-F).

## 304. Applied Mechanics Strength of Materials (3)

Prerequisite: CEM 204.
Analysis of strength and rigidity of structural members in resisting applied forces, stress, strain, shear, moment, deflections, combined stresses, connections, and moment distribution. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 320. Operations Management in Contemporary Organizations (3)

Prerequisites: MGMT 300, ENGR 310.
Managerial and organizational theory and practice - intro to basic concepts and methods to analyze and improve performance of operations in construction and service org. Decision-making and problem-solving processes for organization's effectiveness and efficiency managerial performance in planning, implementing, and controlling work of contemporary orgs. and operations in the construction industry.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
324. Commercial, Institutional and Industrial Construction Practices (2)
Prerequisites: CEM 225, ENGR 310.
Basic skills and techniques required to produce construction contract documents conforming to current building codes and standards, specification, working drawings, bids, addenda and change orders in residential and light commercial buildings, construction practices in residential and light commercial structures: building systems, equipment, materials, techniques and quantities take off.
One designated field trip required. (Seminar 1 hour and Activity 2 hours) Letter grade only (A-F).
328. Construction Safety (2)

Prerequisites: CEM 225, ENGR 310.
Terminology, safety functions, accident costs, workman's compensation and liability laws, O.S.H.A., governmental and non-governmental codes, regulations and field safety methods pertinent to the construction industry. Field trips.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

## 335. Soil Mechanics Technology (2)

Prerequisite: ET 304. Corequisite: CEM 335L.
Soil Composition, description, and classification; soil compaction; determination of physical properties of soils.
(Lecture-Problems 2 hours) Letter grade only (A-F).
335L. Soil Mechanics Technology Laboratory (1)
Prerequisite: ET 304. Corequisite: CEM 335.
Laboratory investigations and experiments in the phenomena of soil mechanics. Field trips.
(Laboratory 3 hours) Letter grade only (A-F).
345. Concrete Formwork and Temporary Structures (2) Prerequisites: CEM 335, 335L.
Methods and techniques used in the design and construction of concrete formwork, temporary earth retaining systems, and other temporary construction structures.
(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

## 365. Mechanical Equipment for Buildings (2)

Prerequisites: CEM 324, PHYS 100B.
Principles and current practices in water supply, waste disposal, heating, ventilating, air conditioning and fire protection.
(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

## 373. Design Presentation Methods (2)

Prerequisite: CEM 324.
Solid modeling of the different phase of design, processes and construction methods. Interpretation from two dimensional to threedimensional drawings. Visualization in space of three-dimensional construction phases and their relationship to two-dimensional

## drawings.

(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

## 374. Plant Planning and Layout (2)

Prerequisite: CEM 121 or consent of instructor.
Planning practices, procedures and requirements for laying out industrial facilities.
(Lecture - Discussion 2 hours) Letter grade only (A-F).

## 375. Electrical Equipment for Buildings (2)

Prerequisites: CEM 324, PHYS 100B.
Principles and current practices in the application of electrical equipment and material utilization, sound and signal systems.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

## 404. Structural Design I (2)

Prerequisite: CEM 304.
Analysis and design of structural concrete and masonry building in compliance with the Uniform Building Code.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).
409. Direct Studies in Construction Engineering Management (1-3)
Prerequisites: Senior standing in ET, consent of instructor.
Advanced work of a technical nature within an area of specialization on an experimental or research basis.
Letter grade only (A-F).
410. Cost Engineering and Analysis (3)

Prerequisite: ECON 300.
Introduction to the concepts of capital and operations budgets, capital acquisitions, economic evaluations of capital alternatives and factors of the time-value of money in industrial operations and construction industries.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 421. Construction Planning and Scheduling (3)

Prerequisite: CEM 324.
Planning, scheduling and control by graphic charts and PERT/CPM networks. Resource allocation and leveling. Manual and computer methods.
Field trips. (Lecture-Discussion 3 hours) Letter grade only (A-F).

## 423. Site Analysis (2)

Prerequisite: CEM 410.
Detailed analysis and investigation of construction sites. Economics and feasibility of land development.
Field trips (Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).
425. Earthwork and Civil Works Construction Practices (2) Prerequisite: CEM 324.
Basic skills and techniques required to produce construction contract documents conforming to current building codes and standards, including specification, working drawings, bid documents, addenda and change orders for use civil structures also includes earthwork and civil works construction methods, stressing field operations management, engineering estimating.
(Seminar 1 hour and Activity 2 hours) Letter grade only (A-F).
426. Business and Construction Law (3)

Prerequisite: CEM 328.
Contractors license laws; mechanics lien laws; real estate and subdivision law; public works projects bid and bid requirements, O.S.H.A.; administration enabling legislation and penalties; citations and appeals; current ligation and legal trends in affirmative action and minority subcontractor quotas, design professional's liability.
Letter grade only (A-F).

## 427. Contract Administration (2)

Prerequisites: CEM 425, 426.
Survey administrative procedures of general and subcontractors. Study documentation, claims, liens, waivers, arbitration, litigation, bonding, insurance, and indemnification. Discuss ethical practices. Field trips. (Lecture-Discussion 2 hours) Letter grade only (A-F).

## 429. Advanced Estimating and Bidding (3)

Prerequisites: CEM 421, 425.
Concepts and practices involved in total estimate bidding process in construction, form initial project selection to submission of final bids. Covers consideration in project selection, variables affecting labor productivity, sub-bid analysis, contingency and risk analysis, pricing concepts, bidding models, and intro to computer applications. A complete project estimate and bid is prepared by each student.
(Lecture 2 hours , Activity 2 hours) Letter grade only (A-F).

## 431. Construction Cost Control (3)

Prerequisites: CEM 429, and Senior Standing.
Basic applications of construction cost control systems and the use of cost information and associated reports.
(Lecture - Discussion 3 hours) Letter grade only (A-F).

## 432. Facility Administration (3)

Prerequisite: CEM 374.
Management skills for facility management. Emphasis is placed on the management functions of planning, organizing, directing and controlling. topics include: negotiation; communication; performance measurement; job enrichment; motivation; contracting services and interpersonal relationships.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 433. Facility Finance Management (3)

Prerequisite: CEM 432.
Analysis of financial management strategies associated with facility management. Topics include: buy-lease considerations; building efficiency; leasing considerations; cost control and record keeping; facility capitalization; facility budgeting; cost benefit analysis and financial reports.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
434. Facility and Property Management (3)

Prerequisite: CEM 433.
Principles of facility and property management. Topics include: property development; cost benefit analysis; site selection; architectural design; layout plans; building engineering; specifications; stacking and blocking plans; aesthetic standards; renovation and contracting standards.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
435. Construction Materials (3)

Prerequisites: CEM 324, 335, 335L.
A comprehensive study in selecting and evaluating construction materials such as masonry, metals, woods, thermal materials, finishes, composite materials, insulation that are used in the construction industry.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

## 436. Facility Operations Management (3)

Prerequisite: CEM 374.
Analysis of the functions of facility operations management. Topics include: building systems; mechanical systems; energy management; electrical systems; trades operations; grounds maintenance; custodial; furniture and equipment; waste removal contracting services; furniture standards; security systems and planned maintenance.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 438. Structural Design II (2)

Prerequisite: CEM 304.
Analysis and design of structural steel and wood building in compliance with the Uniform Building Code.
(Lecture 1 hour , Activity 2 hours) Letter grade only (A-F).

## 443. Project Development and Design (2)

Prerequisites: CEM 373 and 423.
Detailed analysis and investigation of a construction project from a design-built perspective. Advanced site and building development parameters and design. The design-build process.
(Lecture 1 hour and Laboratory 3 hours) Letter grade only (A-F).

## 465. Mechanical and Electrical Estimating (2)

Prerequisites: CEM 365, 375.
Analysis and organization of performing a cost estimate for both mechanical and electrical construction projects. Computer usage. (Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).
475. Mechanical and Electrical Project Management (2) Prerequisite: CEM 465.
Specialty contracts and agreements, scheduling, material handling, labor unit analysis, and job costing for mechanical and electrical construction.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

## 490. Construction Project Management (3)

Prerequisites: CEM 365, 375, 426, 427, 431.
Principles of project management are applied to a case study of an actual construction project. Topics include site facilities planning, procurement, shop drawings, scheduling coordinating subcontracts and contract administration. Relationships with owners, designers and other officials are analyzed.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

Department Chair<br>Peter Lowentrout<br>Department Office<br>McIntosh Humanities Building (MHB), Room 517<br>\section*{Telephone / Fax}<br>(562) 985-4239 / (562) 985-4863<br>Website<br>www.csulb.edu/depts/complit/<br>Professors<br>Conrad Barrett, Douglas Domingo-Forasté<br>\section*{Associate Professors}<br>Kathryn Chew, Paul Scotton<br>\section*{Administrative Support Coordinator}<br>\section*{Lisa Behrendt}<br>Students desiring information should contact the department office for an appointment with the advisor.

Classics includes the study of the languages, the literatures and the civilizations of the ancient Greeks and Romans and the peoples with whom they had contact. Classics offers the Bachelor of Arts in Classics and minors in Classical Studies, Latin, and Greek. Within the Classics major two options are offered, Roman Civilization and Greek Civilization.

Classics, along with rhetoric, made up undergraduate education in Europe and the Americas from the Renaissance to the late nineteenth century. Today classical studies remains a practical liberal arts major for developing critical thinking skills, for understanding the core of Western civilization, for developing facility with English, and for cultivating aesthetic and moral sensitivity. Classics majors are often successful in law, government service, business, secondary and elementary education, library science and medicine. Students interested in graduate school in either Classics or Classical Archaeology should consult with the departmental advisor as early as possible in their academic careers.

The department recommends that some time be spent in either Italy or Greece on one of the many programs designed to familiarize students with the physical remains of these civilizations (College Year at Athens, the American School of Classical Studies at Athens, the Aegean Institute, the Intercollegiate Center for Classical Studies in Rome, etc.). Courses at one of these institutions may be substituted for CSULB courses with departmental approval.

## Bachelor of Arts in Classics (120 units) <br> Option in Roman Civilization (code CLSCBA01)

## Requirements

41-43 units with a minimum of 21 upper division units (excluding LAT 300)

1. Elementary Latin - 6-8 units selected from the following: LAT 101A and 101B (8) or LAT 300 (6).

The requirements in this category may be met by high school equivalents, but total units must still equal 41.
2. Upper Division Latin - 12 units selected from the following: LAT 301, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410A, 410B, 410C, 490.
3. CLSC 202.
4. Additional Courses in Classics - 12 units selected from the following: CLSC 100, 101, 110, 130, 300I, 312I*, 340, 410I, 420I, 440, 490.

* The Department strongly recommends that this course be taken in Italy in the Winter Session.

5. Courses in Antiquity - A minimum of 8 units selected from the following: GK 101A, 101B; AH 408, 417; CLSC 330; COMM 300; CWL 452**; HIST 131, 314, 318; PHIL 490**; POSC 301; R/ST 471I.
** With topic appropriate to ancient Rome and approval of advisor.

## Option in Greek Civilization (code CLSCBA02)

## Requirements

43 total units with a minimum of 21 upper division units:

1. Elementary Greek - 8 units: GK 101A, 101B.
2. Upper Division Greek - 12 units selected from the following: GK 301A, 301B, 401, 402, 403, 404, 405, 490.
3. CLSC 201.
4. Additional Classics Courses - 12 units selected from the following: CLSC 100, 101, 110, 130, 300I, 311I*, 340, 410I, 420I, 430, 490;
*The Department strongly recommends that this course be taken in Greece during the winter session.
5. Courses in Antiquity - A minimum of 8 units selected from the following: LAT 101A, 101B, 300; AH 408, 416; CLSC 330; COMM 300; CWL 452**; HIST 131, 313, 318; PHIL 421, 422, 490**; POSC 301; R/ST 471I.
**With topic appropriate to ancient Greece and approval of advisor.

## Minor in Classical Studies (code CLSCUM01)

The Minor offers students majoring in any subject an opportunity to supplement their education with background in the oldest European tradition.

The Minor consists of a minimum of 20 units that must include a minimum of 9 units of upper division coursework selected from the following:

1. Two courses in Latin or Greek, both in the same language.
2. A minimum of two courses from: CLSC 100, 101, 110, 130, 201, 202, 300I, 340, 410I, 420I, 430, 440, 490; CWL 452 (with an appropriate topic); or additional courses in Latin or Greek, not necessarily in the same language as selected in (1).
3. A minimum of two courses from the following: CLSC 311I or HIST 310I; CLSC 312I, or HIST 312I; CLSC 330I; HIST 313, 314; PHIL 421, 422; AH 408, 416, 417; ANTH 140, 450; POSC 301; R/ST 471I.
Interested students should contact the Classics Advisor prior to or during the first semester of taking courses toward the Minor.

## Minor in Greek (code CLSCUM03)

A minimum of 20 units in Greek which must include four upper division courses. Prospective teachers are strongly urged to take, in addition, HIST 313, CLSC 101, 300I, and other courses touching on the ancient world.

The Minor in Greek is available to any non-Classics major.

## Minor in Latin (code CLSCUM02)

A minimum of 20 units in Latin which must include four upper division courses. Prospective teachers are strongly urged to take, in addition, HIST 314, CLSC 101, and 300I, and other courses touching on the ancient world.

The Minor in Latin is available to any non-Classics major.

## Single Subject Teaching Credential in Latin (code 156)

The subject matter program in Latin consists of 34 units in Latin and related areas. Completion of these courses meets the subject matter competence requirement for the Single Subject Preliminary Credential in Latin (code 156). Courses taken for subject matter competence for the teaching credential also count toward units needed for the Classics B.A., Option in Roman Civilization. Prospective students should consult the Latin Education Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their programs.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective teachers of Latin are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb. edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Latin Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

1. Required courses: LAT 301, 401, 402, 410A, B, C.
2. Five courses from the following: LAT 403, 404, 405, 406, 407, 408, 409, 490.
3. One of the following: HIST 312I, 314.
4. One of the following: CLSC 420I, 440.

Students are required to keep a portfolio of written work produced in the above classes with instructor comments. Members of the Latin faculty evaluate the portfolio according to established criteria. The credential candidate also takes an exit examination administered by the Latin faculty which will assess pronunciation, speech and conversation, listening and writing, and reading. Credential students also produce a Latin play.

## Classics Courses (CLSC)

## LOWER DIVISION

100. The Classical World of Greece and Rome (3)

Prerequisite/Corequisite: One GE Foundation course.
Introduction to the literature, language and culture of the ancient Greek and Roman worlds. Use of primary sources, such as drama, epic, inscriptions, and the visual arts to explore issues of gender, mythology, theater, combat and sports, slavery and family.

## 101. Greek Mythology (3)

Prerequisite/Corequisite: One GE Foundation course.
A survey of the major Greek myths, sagas and tales of gods and heroes, and their influence on later eras, particularly ancient Rome.

## 110. Classical Archaeology (3)

Prerequisites/Corequisite: One GE Foundation course.
Introduction to the study of the material culture of Greece, Etruria and Rome from the Minoans to the Constantine. Covers history of archaeology, chronology and dating systems and analytical methods of material culture including urban planning, construction techniques, and architecture.

## 130. Women in the Classical World (3)

Prerequisite/Corequisite: One GE Foundation course.
A survey of the roles and status of women in ancient Greece, Rome and Etruria through literature by and about women and other ancient source material.

## 201. Ancient Greek Literature (3)

Prerequisite: Completion of GE Foundation requirements.
A survey of the literature of ancient Greece in translation from Homer and Hesiod to Lucian and the novelists (c. 700 BC to AD 400).

## 202. Latin Literature (3)

Prerequisite: Completion of GE foundation requirements.
A survey of the literature of the ancient Romans in translation, focusing on major authors from Plautus to Augustine (200 BC to AD 450).

## 280. At Home in the Ancient World (3)

Prerequisite: Open only to Liberal Studies majors in the Integrated Teacher Education Program (ITEP) and to those enrolled in Track 1 of the Liberal Studies major.
Interdisciplinary introduction to the concept of 'home' in ancient world, focusing on diversity yet unity of this concept in global context.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300I. Pagan Culture (3)

Prerequisites: Completion of Foundation requirement, completion of one or more Explorations course, and upper division standing.
Examines the mass cultures of the Greek and Roman periods, its worldview, and its philosophic and religious underpinnings through literary, artistic, archaeological and documentary sources.

## 311I. Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the society and culture of ancient Greece emphasizing literature, the arts, and history. Topics include Homer, mythology and religion, lyric poetry, the Persian and Peloponnesian Wars, the Athenian Golden Age, and Greek contributions to the modern world.
Same course as HIST 310I.

## 312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the society and culture of ancient Rome emphasizing literature, the arts, and history. Topics include genesis and growth of the Roman world, transition from republic to Empire, imperial maturity, and Roman contributions to the modern world.

Same course as HIST 312l.

## 330. Pirates Merchants and Marines (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing and one of the following: CLSC 110, ANTH 140, HIST 131 or consent of instructor.

Introduction to the history and archaeology of seafaring in the ancient Mediterranean based $n$ a survey of the evidence for maritime commerce and warfare of ancient Egyptian, prehistoric, classical Greek and Roman ages.

## 340. The Underworld (3)

Prerequisite: One course in classics or consent of instructor. In-depth investigation of the realm of the dead as given in ancient Greek and Roman myth. Topics include its topography and population, journeys to it, and interpretations of it. Comparative analysis of ancient myths of the underworld from other cultures.

## 350. Hollywood Does Rome (3)

Prerequisite: CLSC 100 or 101 or 202 or consent of the instructor. Investigation of filmmakers' motives and methods to portray the ancient Romans from beginnings of cinema to the present. Topics include 'imagining' the past, the 'power' of the image, cultural imperialism, film theory, the 'language' of myth, and reception theory.

## 410I. Law and Literature in the Classical World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Introduction to the study of philosophy and interpretation of law through classical literature that encompasses fundamental legal questions and ancient legal source material and the application of modern theories of literary criticism to ancient and modern law.

## 420I. Classical Drama (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper division standing.
Examination of the plays of Aeschylus, Sophocles, Euripides, and Aristophanes both as literature and as theater. Includes origins of tragedy and comedy, later Greek and Roman drama, and debt of modern drama to the theater of Greeks.

## 430. Archaeology of Ancient Greece (3)

Prerequisite: one of the following courses: CLSC 110, 330I, ANTH 140, HIST 131, or AH 416/516, or consent of instructor.

The material culture of ancient Greece, from Minoans to Constantine including urban planning, architecture, sculpture, painting, ceramics, burial customs, religious and secular artifacts, epigraphy and numismatics. Examines chronology and dating systems, analytical methods and history of classical archaeology in Greece.

## 440. Archaeology of the Roman World (3)

Prerequisite: Completion of one of the following: CLSC 110, 330I, ANTH 140, HIST 131, or AH 416/516, or consent of instructor.
The material culture of Roman empire, from Villanovans to Constantine including urban planning, architecture, sculpture, painting, ceramics, burial customs, religious and secular artifacts, epigraphy and numismatics. Examines chronology and dating systems, analytical methods and history of archaeology of Roman empire.

## 490. Special Topics in Classics (1-4)

Prerequisite: Consent of instructor.
Topics of special interest in Classics selected for intensive study. Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special interest.
May be repeated to maximum of 6 units.

## GRADUATE LEVEL

## 598. Directed Readings in Classics (1-4)

Prerequisites: Graduate standing and consent of instructor.
Selected topics in Classics or Classical Archaeology will be studied in depth.
A term paper is required. Letter grade only (A-F).

## Greek Courses (GK)

## LOWER DIVISION

101A. Elementary Greek (4)
Prerequisite/Corequisite: Any Foundation course.
Introduction to ancient Greek, the language of Sophocles, Plato, Aristophanes, Homer and Demosthenes. Forms, syntax and basic vocabulary leading also to a reading knowledge of New Testament Greek. Designed for those beginning a study of ancient Greek.

## 101B. Elementary Greek (4)

Prerequisite/Corequisite: Any Foundation course. Prerequisite: GK 101A or equivalent.
Continuation of GK 101A.

## 102. New Testament and Early Christian Greek (1)

Corequisite: GK 101B.
Supplemental graded readings and writing exercises in New Testament Koine Greek and other very early Christian literature such as the Didache and the Epistle of Clement.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 301A-B. Intermediate Greek (3-3)

301A. Prerequisite: GK 101B or equivalent.
301B. Prerequisite: GK 301A or equivalent.
Continued study of the language and culture. Reading and translating selections of classical writers.
401. Homer (3)

Prerequisite: GK 301B or equivalent.
Translation and literary study of selected books of the lliad or Odyssey.
402. Plato (3)

Prerequisite: GK 301B or equivalent.
Translation and literary study of one or more dialogues of Plato.

## 403. Tragic Poets (3)

Prerequisite: GK 301B or equivalent
Reading of a play of Aeschylus, Sophocles or Euripides.
May be repeated to a maximum of 9 units with different topics in different semesters.

## 404. Historians (3)

Prerequisite: GK 301B or equivalent
Reading from selections from Herodotus, Thucydides and/or Xenophon.
May be repeated to a maximum of 9 units with different topics in different semesters.

## 405. Attic Orators (3)

Prerequisite: GK 301B or equivalent.
Reading of a speech of Demosthenes, Antiphon, Andocides, Lysias, Isocrates, Aeschines, Hyperides, Isaeus, Lycurgus, Dinarchus or selections from various orators.
May be repeated to a maximum of 9 units with different topics in different semesters.

## 490. Special Topics (1-3)

Prerequisites: 12 units of upper division Greek courses or consent of instructor.
Translation and literary study of the selected works of an author, genre (e.g., oratory) or period (e.g., Hellenistic Greek).
May be repeated to a maximum of 12 units.
499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special interest.
May be repeated to a maximum of 6 units.

## Latin Courses (LAT)

## LOWER DIVISION

## 101A. Elementary Latin (4)

Prerequisite/Corequisite: Any Foundation course.
Introduction to the Latin language as used by Vergil, Cicero, Livy, Catullus, Tacitus, and Juvenal as well as late Latin and medieval writers. Basic forms, syntax, and basic vocabulary leading to a reading knowledge.

## 101B. Elementary Latin (4)

Prerequisite/Corequisite: Any Foundation course. Prerequisite: LAT 101A or equivalent.
Continuation of LAT 101A.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. Intensive Latin (6)

Equivalent to two semesters of Elementary Latin. Designed for undergraduate and graduate students with little or no knowledge of Latin, whose degree programs require or recommend a reading knowledge of the language. Not open for credit to students with credit in LAT 101B.

## 301. Intermediate Latin (4)

Prerequisite: LAT 101B or 300 or equivalent.
Continued study of the language and culture of the ancient Romans. Reading and translating selections of classical writers.

## 401. Vergil (3)

Prerequisite: LAT 301 or equivalent.
Reading of selections from Vergil's Aeneid, and/or selections from the Georgics and Eclogues.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 402. Cicero (3)

Prerequisite: LAT 301 or equivalent.
Reading of one or more works of Cicero.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 403. Latin Lyric and Elegy (3)

Prerequisite: LAT 301 or equivalent.
Reading of selected poems of one or more of the lyric and elegiac poets: Catullus, Horace (Odes, Epodes, Carmen Saeculare), Propertius, Tibullus, and Ovid (Amores).
May be repeated to a maximum of 6 units with different topics in different semesters.

## 404. Latin Epic (3)

Prerequisite: LAT 301 or equivalent.
Reading of selections from Lucretius' De Rerum Natura and/or Ovid's Metamorphoses.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 405. Historiography of the Republic (3)

Prerequisite: LAT 301 or equivalent.
Reading of selections from Sallust and/or Julius Caesar.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 406. Historiography of the Empire (3)

Prerequisite: LAT 301 or equivalent.
Reading of selections from Livy and/or Tacitus.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 407. Latin of the Early Principate (3)

Prerequisite: LAT 301 or equivalent.
Reading of selections from the following authors and works: Pliny the Younger, Martial, Seneca's letters, Suetonius.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 408. Roman Comedy (3)

Prerequisite: LAT 301 or equivalent.
Reading of one or more plays of Plautus and Terence.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 409. Roman Satire (3)

Prerequisite: LAT 301 or equivalent.
Reading of selected satires of Horace, Juvenal, or Persius, the Satyricon of Petronius or the Apocolocyntosis of Seneca the Younger.
May be repeated to a maximum of 6 units with different topics in different semesters.

## 410A-B-C. Latin Prose Composition (1-1-1)

Thorough instruction in writing Latin prose at the advanced level. Extensive coverage of syntax and morphology of Latin.
A. Prerequisite: LAT 301 or equivalent. Beginning Latin prose composition
B. Prerequisite: LAT 410A. Continuation of prose composition.
C. Prerequisite: LAT 410B. Continuation of prose composition.

## 490. Special Topics (1-3)

Prerequisites: LAT 301 or equivalent.
Translation and study of authors of a particular period (e.g., Medieval Latin) or of a methodological specialty (e.g., Latin epigraphy).
May be repeated to a maximum of 9 units with different topics in different semesters.

## A. Medieval Latin

499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special interest.
May be repeated to a maximum of 6 units.

## COMMUNICATION STUDIES

College of Liberal Arts

Chair<br>Sharon D. Downey<br>Department Office<br>McIntosh Humanities Building (MHB), Room 717<br>Telephone<br>(562) 985-4301 or 985-4302<br>Faculty<br>Professors<br>Terre Allen, Karl W. E. Anatol (Emeritus), Nancy E. Briggs, Sharon D. Downey, Patricia Kearney, G. Bruce Loganbill, James S. Manseau Sauceda, Valerie C. McKay, Timothy G. Plax, Richard E. Porter (Emeritus), Karen Rasmussen, Craig R. Smith, Fathi S. Yousef (Emeritus)

## Associate Professors

Amy Bippus, Aaron Cargile, Norah Dunbar, José Rodriguez

## Assistant Professors

Guy Bachman, Katie Gibson, Ann Johnson, Lynda McCroskey, Mary McPherson, G. Mitchell Reyes, Marc Rich, Matt Taylor, Stacy Young
Department Secretary
Wendy Lucas
Hauth Center for Communication Skills
Administrative Director
Tim Plax
Technical Director
Scott Allen

Students desiring information about the communication studies program at CSULB should contact the department undergraduate advisor or the graduate advisor.

Located within the College of Liberal Arts, the Department of Communication Studies provides students with a solid liberal arts education in communication arts and sciences with specialized training in communication skills and practices at the baccalaureate and graduate levels. The Department of Communication Studies maintains a tradition of liberal education which traces the world's heritage of humanistic tradition in its multicultural diversity. The communication studies curriculum focuses on issues of ethics, creative thought, historical and scientific inquiry, critical thinking, understanding of communication phenomena, aesthetic expression, and the development of excellent human communication skills. To this end, the Department of Communication Studies provides two major services to the University community. First, through specialized curricula, the Department stresses inquiry, analysis, and critical evaluation to students who seek to apply a comprehensive background of communication theory and practice in business, industry, professional
fields, or education. Second, through its general education and service offerings, the department provides a variety of courses stressing critical thinking, and oral and written communication designed to give all students experiences in the traditions of the liberal arts and to prepare them for responsible citizenship in a pluralistic society.

The various degree options in the Department of Communication Studies are intended to provide students with the opportunity to emphasize an area of communication studies which will best suit their personal and career goals. Each student is required to consult with the department undergraduate or graduate advisor as appropriate for advisement. Student advising is available during the Fall and Spring semesters only.

NOTE: Lower division 100 and 200 level classes taken through California Community Colleges satisfy Iower division CSULB Communication Studies requirements.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Communication Studies

## Admission Under Impcation

To be eligible for admission to Communication Studies, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed at least 9 units of lower-division prerequisite Communication Studies courses, selected from COMM 110, 130, 131, 132, 171, and 220. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission for admission based on cumulative grade point average. Students who are admitted provisionally into the upper-division major must complete COMM 300 and 306 with a minimum grade of "C" in each prior to the end of their second semester in the major or they will be dropped from the major. The Department of Communication Studies offers three undergraduate degree programs in Communication arts and sciences: The Bachelor of Arts Degree in Communication Studies, the Option in Interpersonal and Organizational Communication, and the Option in Rhetorical Studies.

Communication Studies majors will not be permitted to take any class in the major on a credit/non-credit basis. Communication Studies majors will not be permitted to drop a class in the major after the third week of classes without compelling justification or unless they present acceptable evidence of a change of work schedule that causes a conflict between their work hours and their class schedule, or unless they are totally withdrawing from the University.

Six of the lower division units may be applied to meet General Education requirements in oral communication and critical thinking.

## General Option (code COMMBA01) (120 units)

The general option is concerned with all the dimensions found in the communication field. It requires course work in both the rhetorical and behavioral dimensions of the field and then permits the student to elect additional work in communication theory, rhetoric and public address.

## Requirements

This major consists of 48 units of which 39 are upper division.

1. Nine lower division units including COMM 110, 131, and three lower division units from COMM 130, 132, 171, or 220.
2. A core consisting of 18 units drawn from COMM 300, 301, $306,307,309$, and 330.
3. Six units in performance courses drawn from COMM 331, $333,334,335,338,344,352,355,358$.
4. Nine units in theory courses drawn from COMM 400, 410, 411, 412, 430, 433, 436, 437, 439, 441I, 449, 490.
5. Six units in special studies drawn from COMM 337, 414, 420, 421, 432, 434, 442I, 450, 452, 490.
Only courses in which adequate ("C" or above) grades have been earned may be applied to satisfy upper division requirements in the major. Classes taken in which less than adequate grades are received must be repeated until an adequate grade is achieved.

## Option in Interpersonal and Organizational Communication (code COMMBA03) (120 units)

The Interpersonal and Organizational Communication option is designed for students who wish to prepare themselves for careers in public and private organizations requiring well-developed communication skills and a knowledge of interpersonal and organizational behavior. Students choosing this option will study the theoretical and applied aspects of interpersonal and organizational communication as they function in complex organizations. They will also develop a wide range of communication skills useful in organizational environments.

## Requirements

This major consists of 48 units of which 36 are upper division.

1. Twelve lower division units including COMM 110, 130, 220, and three lower division units from COMM 131, 132, or 171.
2. A core consisting of 24 units drawn from COMM 300, 301, $306,307,309,330,410$, and 420.
3. Six units in performance/special studies courses drawn from COMM 331, 333, 334, 335, 338, 355, 414, 421, 432, $434,439,441 \mathrm{I}, 442 \mathrm{I}, 450,452,490,492 \mathrm{~A}$ or 492 B or 495.
4. Six units in theory courses drawn from COMM 337, 344, 400, 411, 412, 430, 433, 449, 490.
Only courses in which adequate ("C" or above) grades have been earned may be applied to satisfy upper division requirements in the major. Classes taken in which less than adequate grades are received must be repeated until an adequate grade is achieved.

## Option in Rhetorical Studies <br> (code COMMBA02) (120 units)

The Rhetorical Studies option is designed for students who wish to approach the study of human communication from a cultural or historical-critical perspective. In this option, students will give particular attention to the historical development of rhetoric, the study of persuasion, popular and media culture, and political and public affairs.

## Requirements

This major consists of 48 units of which 39 are upper division.

1. Nine lower division units including COMM 130, 131, and three lower division units from COMM 132, 171, or JOUR 110.
2. A core consisting of 18 units drawn from COMM 300, 301, $306,307,309$, and 330.
3. Six units in performance courses drawn from COMM 331, 333, 335, 336, 337, 352.
4. Nine units in theory courses drawn from COMM 433, 436, 437, 439, 441I, 449, 490.
5. Six units in special studies drawn from COMM 411, 412, $421,430,432,442 \mathrm{I}, 492 \mathrm{~A}$ or 492B or 495.
Only courses in which adequate (" C " or above) grades have been earned may be applied to satisfy upper division requirements in the major. Classes taken in which less than adequate grades are receive must be repeated until an adequate grade is achieved.

## Minor in Speech Communication (code COMMUM01)

The Minor in Speech Communication is available to any non-Communication Studies major. A minimum of 21 units in Communication Studies is required, of which at least 15 must be upper division, chosen in consultation with the Department Undergraduate Advisor.

## GRADUATE PROGRAMS

## Master of Arts in Communication Studies (code COMMMA01)

The Department of Communication Studies at California State University, Long Beach offers a Master of Arts degree in Communication Studies. A student may construct a personalized program that draws from the following areas: rhetorical, interpersonal, organizational, or intercultural communication, performance studies, forensics, or instructional communication.

## Admission

1. Application for Admission to the University. The office of Enrollment Services processes applications to the University (forms available through that office) and forwards those meeting University criteria to the Department.
2. Application to the Department. In addition to the University application, prospective students are also required to submit an application and supporting materials directly to the Department. An application form
along with detailed instructions are available on-line at the Department's website (http://www.csulb.edu/depts/ comstudies). Generally, the department accepts students who have a minimum 3.0 Overall Undergraduate GPA and a minimum combined score of 900 on the Verbal and Quantitative sections of the Graduate Record Exam (minimum of 400 per section). The decision to admit is never based on a single indicator. Students who do not meet these requirements may seek admission through appeal.
3. Admissions Appeal Policy. Students whose GPA and/or GRE scores are below the minimum may seek admission through an appeal letter to the Graduate Advisor. The Graduate Advisor shall distribute copies of any appeal letters to the Graduate Committee. The Graduate Committee shall consider the merits of each appeal letter and determine whether an exception ought to be made with regard to the GPA and/or GRE requirements. The decision of the Graduate Committee is final. Students who are not accepted into the program may not enroll in graduate courses in the Department of Communication Studies. Graduate courses taken through Open University will not apply to the student's degree program in the Department of Communication Studies.
4. Teaching Associateships and Graduate Assistantships. Employment as a Teaching Associate or Graduate Assistant falls under the jurisdiction of the Personnel Committee of the Department. The positions pay approximately $\$ 950.00$ per month. Tuition is not waived. Interested students should send letters of application, transcripts, GRE scores, and three letters of recommendation to: Chair, Department of Communication Studies, California State University, Long Beach, 1250 Bellflower Blvd., MHB-717, Long Beach, CA 90840-2407.
5. Advising. Consult the Graduate Advisor to plan a program of study and to receive information regarding Department procedures prior to enrollment. The Graduate Advisor and/or a faculty mentor will guide students through their programs.

## General Considerations

## 1. Requirements

A. All requirements date from the time at which a student receives approval for Advancement to Candidacy, not from when a student begins graduate study.
B. The Department requires a minimum of thirty semester hours (including four thesis credits in the Thesis Option) for the Master's Degree. The University requires a minimum of twenty-four graduate credits be completed in residence.
C. Students must either pass the Department's comprehensive examination or write an acceptable thesis.
D. The Department expects its graduate students to possess the writing skills necessary for advanced study. Fulfill the Graduation Writing Assessment Requirement (GWAR). Students should fulfill the GWAR no later than the end of the first semester of graduate study. If you believe you have taken an examination equivalent to fulfillment of the GWAR, consult the Graduate Advisor.
2. Prerequisites
A. Units obtained fulfilling prerequisites or deficiencies do not count toward the minimum of thirty semester hours needed to complete the Master's degree.
B. Students must meet all prerequisites before enrolling in graduate courses, except for COMM 541 or 546. Individuals may petition for waiver of this rule prior to registering for courses if compelling reasons warrant such a waiver.
3. Students must comply with all University regulations outlined in the CSULB Catalog.

## Prerequisites

Individuals with a Bachelor's degree in Communication Studies (or its equivalent) from a fully-accredited college or university must have approved coursework in:
A. Survey of Rhetorical Theory (COMM 300)
B. Communication Criticism (COMM 301)
C. Measurement in Communication Research (COMM 307)
D. Communication Theory (COMM 306)
E. Language and Behavior (COMM 309)

## Requirements

1. A minimum of thirty hours of graduate work in

Communication Studies distributed as follows:
These requirements are those listed in the 1996-97 University Catalog and thus are relevant to students advancing to candidacy during or after Fall 1995. For requirements applicable to students advancing to candidacy prior to Fall 1995, consult appropriate University Catalog.
A. COMM 541 and 546 to be completed prior to advancement to candidacy and preferably within the first semester of graduate work (6 units);
B. Twelve units consisting of:

1) COMM 640 and 646 ( 6 units),
2) one course selected from COMM 633, 635, 636, 637, 638 or 639 ( 3 units), and
3) one course selected from COMM 600, 610, 611, 614, 620, 630, 632, 648, 649, or 650.
C. twelve elective units of 500 or 600 level coursework approved by the student's advisor and the Graduate Committee, including four thesis units (COMM 698) if the student elects the thesis option.
2. A minimum of six graduate units taken from one or any combination of the following areas:
A. graduate courses from within the Department of Communication Studies,
B. graduate courses from outside the Department of Communication Studies (maximum of 6 units)
1) classes taken outside the discipline in a department at California State University, Long Beach require prior approval by the Graduate Committee,
2) classes taken outside the discipline in a department at another university require approval by the Graduate Committee, or
3) classes taken within the discipline in a department at another university.
3. Completion of the Department's Comprehensive Examination or of an acceptable thesis.
4. Please note that Internships and student teaching cannot be included in the required thirty units.

## Enrollment in Communication Studies 697

COMM 697 (Directed Research) should enable students to study topics and methods not normally available through regular coursework. Persons who choose the Thesis Option MAY NOT use COMM 697 to complete any part of the thesis project; however, COMM 697 may function to develop research proficiencies relevant to the thesis. The policy regarding COMM 697 is:

1. The Graduate Committee will approve the inclusion of COMM 697 in a graduate program only if:
a. the research topic is not available through regular coursework during the student's tenure in graduate study,
b. the student has completed 6 units from the graduate core courses,
c. the student has been advanced to candidacy or has submitted her or his Graduate Program to the Graduate Advisor.
2. Students may take a maximum of three units of COMM 697.
3. Candidates must secure approval for COMM 697 before taking the course. Prior to the semester of enrollment, students must submit two forms to the Graduate Committee:
a. a "Petition for Directed Research,"
b. an "Agreement for Independent Study Course" signed by the graduate faculty member directing the independent research (obtain this form from the Department office)
4. The Graduate Committee will determine whether the proposed study conforms to the purposes of COMM 697. The faculty member directing the research has the responsibility of judging the student's ability to complete the research and also assigning the grade for the project.
5. Only members of the Department graduate faculty may direct COMM 697.

## Advancement to Candidacy

Advancement to Candidacy defines a candidate's program of study and establishes her or him as an official graduate student in the University. Programs must meet the requirements in effect at the time of advancement. Candidates must submit the form for advancement required by the College of Liberal Arts (forms available in the Department office) to the Graduate Committee. Individuals are eligible for Advancement to Candidacy after completing COMM 541 and 546. Students should have an average of "B" or better to be advanced to candidacy. Candidates considering the thesis option should submit a list of ten or more courses, starring (*) the class or classes to be omitted if the thesis option is selected.

1. To qualify for advancement, a person must:
A. be enrolled in the University during the semester or session he or she requests advancement,
B. have removed all deficiencies,
C. have earned a minimum cumulative grade point average of 3.0 (B) for work taken - i.e., graduate courses and undergraduate prerequisites,
D. have completed six units of graduate core courses with an average of "B" or better,
E. have fulfilled the Graduation Writing Assessment Requirement.
2. If the student fails to petition for Advancement to Candidacy at the recommended time, he or she must do so at least one semester prior to the semester in which she or he intends to graduate. The deadline each semester is exactly four weeks before the last day of instruction. Do not wait for the deadline! The Graduate Committee may require the student to resubmit a program. Students can neither take the Master's Comprehensive Examination nor enroll in COMM 698 until a program is approved.
3. All submitted programs should indicate the semester in which courses were or will be taken and should report ALL grades in courses completed. No grades of Incomplete (I) or Satisfactory Progress (SP) can appear on the program.
4. If a program contains courses taken outside the Department, a student must obtain approval from the Graduate Advisor and the Graduate Committee before including such classes in her or his course of study. This restriction applies to courses taken at CSULB and to ones transferred from other colleges or universities. Failure to obtain Graduate Committee approval for including such courses prior to enrollment may result in students' taking classes which cannot be included in their programs of study. Candidates must submit the appropriate petition to the Graduate Committee to obtain the necessary approval.
5. After receiving the appropriate form, "Petition for Advancement to Candidacy," the Graduate Advisor will seek approval of the Graduate Committee and the Graduate Dean of the College of Liberal Arts.

## Change in Graduate Program

If a student desires to amend her or his program of study after its approval, he or she must submit the College of Liberal Arts "Change of Program" form (available in the Department office) to the Graduate Committee for approval. Approval must be given prior to enrollment in any courses involved in the change; otherwise, the course will not be considered part of the minimum thirty units needed to complete the degree.

## Comprehensive Examination Option

1. Comprehensive Examinations are given during the third weeks of November and April for the Fall and Spring semesters, respectively. Students may not take their Comprehensive Examinations during either the Winter or Summer sessions.
2. The following provisions govern election of the Comprehensive Examination Option:
A. If a student elects the Comprehensive Examination option at the time of approval of her or his Graduate Program, the student may not change to the thesis option except with a special permission from the Graduate Committee.
B. Eligibility: Candidates may take the Comprehensive Examination if they have:
1) been advanced to candidacy, and
2) maintained a grade point average of at least 3.0 (B) in courses in the Master's degree program (i.e., graduate classes and prerequisites).
3. Description and Preparation
A. Description. The Examination consists of two sections:
1) a written section spanning three, three-hour sessions during a single week,
2) an oral defense, generally held within two weeks of writing the examination. The oral defense permits the student to elaborate on written answers and to answer questions that may develop out of those answers. Other discussions may arise from issues that occur to the examining committee during the oral segment of the Comprehensive Examination.
B. Preparation. Students should prepare for the Examination by beginning their study well before the actual assignment of an examining committee. Once the Graduate Committee appoints that group, a candidate should meet with his or her Committee Chair to discuss procedures relevant to the Examination. Individuals are responsible for the subject matter of their courses regardless of whom the instructor is. The persons on their committees may or may not be those who have taught the actual seminars taken by the candidates. Professors writing questions are under NO obligation to discuss them with the students. The professors may, however, choose to provide candidates with general guidelines to aid in preparation for the Examination. Students should be familiar with all relevant literature integral to a particular area. Because the Examination is "closed book," no notes may be taken into the examination room. Students may obtain bibliographies from individual instructors or from the Graduate Advisor.
4. Student Petitions, Committee Formation, Guidance, and Facilities/Supervision
A. Petitioning. Students must petition to take the Comprehensive Examination no later than the end of the semester prior to the term in which they will write the Examination. Students may not petition to take the Comprehensive Examination until all grades of Incomplete (I) and/or Satisfactory Progress (SP) have been removed.
B. Committee Assignment. The Graduate Committee will consider petitions and assign committees during the last week of the first month of each semester. The examining committee consists of three examiners with one member serving as chair. Each member will compose questions for one of the three sessions of the examination.
C. Guidance. Graduate students taking the Comprehensive Examination should understand that faculty are free to develop questions from the subject areas in which students take courses, including the undergraduate core. Candidates are responsible for the subject matter in those areas whether or not such material is addressed in a particular class. Faculty may, but are not required to, provide guidance about the content for which the student is responsible. Faculty may, but are not required to, provide sample questions,
reading lists, and/or assign open-ended questions for study. Furthermore, graduate students should understand that questions normally require integration of material in original ways.
D. Facilities/Supervision
1) The Department will provide rooms in which candidates can write the examination.
2) Students wishing to use computers may bring their own computers, or make arrangements with a specific faculty member to use that person's computer.
3) The Graduate Advisor or his/her designee will be available on each day of the Examination to answer questions and cope with difficulties.
5. Defense, Decision, and Appeal Procedure
A. Each Comprehensive Examination Oral Defense will begin by giving candidates the opportunity to explain any revisions they feel will strengthen their written responses.
B. Decisions of the Comprehensive Examination Committees. Individual members of the Comprehensive Exam Committee have three voting options: Pass, Fail, or Rewrite.
1) Comprehensive Examination Committees may render one of the following decisions:
Pass - three votes to pass.
Fail - three votes to fail.
Rewrite - any other possible combination of votes.
2) If students are required to REWRITE all or part of the Comprehensive Examination, they will be given the opportunity to rewrite only once in the area(s) of deficiency. Students must receive question(s) for revision within three working days of the Oral Defense. The student must respond in writing to the committee member(s) by the final day of instruction of the semester as specified by the University calendar. The committee may require a second meeting during the final examination week to review the student's rewrite and decide whether the student passes or fails the Comprehensive Examination.
3) If the Committee's decision is that the candidate failed the Examination, members shall make themselves available to the candidate to explain their decisions and to facilitate his or her preparation to retake the Examination. A student may petition to retake the Examination no earlier than the semester following that in which she or he has first taken the test. The Examination may be retaken only once.
C. The Department will use the following procedure if a student appeals the decision of a Comprehensive Examination Committee:
4) The Graduate Committee of the Department will serve as the review board to determine whether the appeal has merit on procedural grounds.
5) Members of the Graduate Committee will be ineligible to serve on the review board if they are part of the original examining committee.
6) If such eligibility reduces the membership of the Graduate Committee to fewer than three persons, a replacement will be selected by lottery from among remaining eligible members of the Department faculty.

## Thesis Option

1. Electing the Thesis Option
A. This option requires a candidate to include four units of COMM 698 (Thesis) in her or his program. Students may not enroll in COMM 698 until after Advancement to Candidacy or, in rare cases, when advancement occurs in the same semester as the initial enrollment. Note that the Department facilitates timely Advancement to Candidacy of persons writing a thesis by allowing them to submit an advancement form listing ten courses (30 units) or more and starring (*) the course or courses to be omitted if the thesis option is selected.
B. The "Petition for Permission to the Elect the Thesis Option"
1) The candidate must submit the petition to the Graduate Committee through the Graduate Advisor. The form provides space for the signatures of the proposed committee members certifying their willingness to serve on the committee and their approval of the candidate's prospectus. Acceptance of the prospectus by the Thesis Committee certifies both the acceptability of the thesis topic and the willingness of the Committee to direct the student's thesis.
2) The Graduate Committee will not approve the petition until the student completes all requirements in COMM 541 and 546.
C. The Thesis Committee
3) The student is responsible for securing faculty to serve on her or his Thesis Committee. At least two members of a three-person committee or three members of a five-person committee must be tenure-track or tenured faculty from the Department of Communication Studies. Faculty holding parallel status in other departments at CSULB or in other Communication Studies departments in the CSU system may fill the other slots on the committee.
4) The Committee Chair must be a member of the Department's graduate faculty.
D. The candidate shall prepare a prospectus in consultation with the Thesis Committee Chair and other committee members. The project should be more than a minor extension of a seminar project. It should constitute an original contribution to literature in communication studies and should develop a student's research abilities. Candidates must submit a completed, approved prospectus to the Graduate Committee no later than the semester prior to that in which the thesis is to be completed.
2. Completing the thesis
A. COMM 698
1) If the "Petition for Permission to Elect the Thesis Option" is approved by the Graduate Committee, a student may not change to the Comprehensive Examination Option except by special permission of the Graduate Committee. If a student has been enrolled for a semester or more in COMM 698, he or she cannot change options under any condition.
2) If a candidate does not demonstrate satisfactory and continuous progress on the thesis after enrolling in COMM 698, the Graduate Committee, on the
recommendation of the Thesis Committee and/or the Graduate Advisor, may terminate the student's graduate program and, if the student is enrolled in COMM 698 at the time, will assign an " $F$ " for the semester.
3) The Department may endorse a petition for one semester of concurrent enrollment in COMM 698 and in another graduate or professional school only if the candidate's Thesis Committee presents evidence that a draft of the thesis requiring only mechanical revision has been submitted.
B. Neither the Thesis Committee nor the Department is responsible for advising or supervising thesis candidates when they are not enrolled in the graduate program.
C. For thesis specifications and deadlines consult:
4) The University Thesis Reviewer whose office is in the Library;
5) the official thesis document: Master's Thesis and Projects: Guide to Style and Format;
6) the Thesis Committee;
7) thesis guidelines available in the following manuals:
a) typing requirements (e.g., formatting, table of contents, appendices, etc.): Turabian, Kate. A Manual for Writers of Term Papers, Theses, and Dissertations, latest edition
b) style sheets for technical requirements:
i) Publication Manual of the American Psychological Association, latest edition, or
ii) MLA Handbook for Writers of Research Papers, latest edition
D. Approval of the completed thesis
8) Upon completion of an acceptable thesis, the student will defend the thesis before the Thesis Committee. Other departmental faculty and students may choose to attend. The Chair of the Thesis Committee will make all necessary arrangements for the oral defense and announce its time and place to the Department. The decision of the examining committee is by secret ballot and requires a majority vote. The Committee will notify candidates of their decision immediately after the oral defense. A candidate whose thesis and/or defense does not receive approval may revise and resubmit the thesis and/or defend it no sooner than the following semester. Resubmission or redefense, however, may take place only once.
9) The completed draft of the thesis must meet the approval of the University Thesis Reviewer.
10) Candidates must deposit the thesis in the University Library. Copies are given to the Department Library and to the Chair of the Thesis Committee if requested.

## To Graduate

The CSULB Catalog states: "All requirements of the degree program must be completed within seven years of the date . . . when the first course appearing on the student program was completed. . . A graduate student who expects to receive a degree at the end of any semester or summer session must be enrolled during that . . . [term] and
must complete the Request to Graduate Form within the first three weeks of classes of the prior semester. Students completing their degrees in May or in the following summer session should file the application by the preceding October 1. Students completing their degrees January should file by the preceding February 15 at the Admissions and Records Office. . . . Graduate Studies 700 may be used to fulfill the enrollment requirement if the applicant has completed all degree program coursework prior to the semester of graduation."

## Graduate Student Honors

Several honors for graduate students are awarded each year at commencement. In accordance with the Department policy, such honors shall be awarded to deserving students using criteria such as the following:

1. grade point average
2. papers published or presented at professional conferences
3. conventions attended
4. professional community service not a part of a student's employment
5. Graduate Communication Association involvement
6. Student Communication Association involvement
7. Departmental service - e.g., volunteer forensic assistant, class lecturer, committee membership

## Financial Assistance

Refer to the University Catalog for information regarding financial assistance which is available on a University-wide basis.

## Forms and Petitions

Sample forms and petitions relevant to enrolled graduate students appear in the Appendix of the Graduate Handbook available only to students registered in the Graduate Program.

## Questions

Any questions not answered in these pages should be directed to the Department Graduate Advisor.

## Graduate Courses in Communication Studies

Students may apply the following graduate courses in Communication Studies toward the Master's Degree: COMM 531, 541, 546, 590, 600, 610, 611, 614, 620, 630, 632, 633, 635, 636, 637, 638, 639, 640 (540), 646 (696), 648, 649, 650, 697, 698

## Undergraduate Core Courses

COMM 300 (440), 301 (435), 307 (230), 306 (446),
309 (448) Course numbers in parentheses are old course numbers.

## Graduate Faculty

Terre H. Allen, Guy Bachman, Amy Bippus, Nancy E. Briggs, Aaron C. Cargile, Sharon D. Downey, Norah Dunbar, Katie Gibson, Ann Johnson, Patricia Kearney, Lisa Lindsey, G. Bruce Loganbill, Lynda McCroskey, Valerie C. McKay, Mary McPherson, Timothy Plax, Karen Rasmussen, G. Mitchell Reyes, Marc Rich, José Rodríguez, James S. Sauceda Manseau, Craig R. Smith, Rachel Smith, Matt Taylor, Stacy Young

## Courses (COMM)

## LOWER DIVISION

## 110. Interpersonal Communication (3)

Corequisite: Concurrent enrollment in COMM 110 Workshop.
Lecture: Basic characteristics of processes underlying the formation, maintenance and termination of interpersonal relationships; theoretical and practical implications of these characteristics in various forms of interpersonal communication.
Workshop: Planned exercises and activities to develop interpersonal communications skills.
(Lecture 2 hours, Workshop 2 hours). Not open for credit to students with credit in COMM 210. (CAN SPCH 8)

## 130. Essentials of Public Speaking (3)

Composition and delivery of speeches to inform and persuade. Logical organization is stressed.
(CAN SPCH 4)

## 131. Essentials of Argumentation (3)

Corequisite: Concurrent enrollment in 131 workshop.
Lecture: Theory of argumentation; examination of forms and sources of evidence, inductive and deductive arguments, construction of case briefs, and refutation.
Workshop: Develops critical thinking abilities with planned exercises and speeches including construction and presentation of arguments, cases, and refutation.
(CAN SPCH 6)

## 132. Small Group Discussion (3)

Basic principles and techniques of discussion. Relationship of discussion to democratic processes and contemporary society including a study and practice of critical thinking and problem-solving techniques in various group discussion settings.
(CAN SPCH 10)
171. Voice and Applied Speaking (3)

Application of speaking clarity and proficiency, voice quality and pacing, and related communication modification objectives. Speaking process is applied to realize personal, social, and professional verbal communication skills.
Not open for credit to students with credit in COMM 271.
200. Gateway to Communication Studies (3)

Introduction to the academic discipline of communication studies with emphasis on multiple epistemological, theoretical, and methodological issues relevant to the systematic inquiry and pursuit of knowledge about human communication.
Letter grade only (A-F).

## 220. Elements of Organizational Communication (3)

Role of communication in achieving organizational goals; theory and practice of communication in private and public organizations; techniques to enhance understanding in organizations.

## 236. Forensic Activity (1-3)

Participation in intercollegiate forensic activities. Any student who expects to participate in such activities during the semester should enroll. Specific assignments will be determined in consultation with the staff.
May be repeated to a maximum of 4 units.

## UPPER DIVISION

## 300. Survey of Rhetorical Theory (3)

A history of major rhetorical theories from the ancient Greeks to the Twentieth century. Theorists include Gorgias, Plato, Aristotle, Cicero, Quintilian, Augustine, Machiavelli, Locke, Marx, Freud, the existentialists, and others.

## 301. Communication Criticism (3)

Prerequisite: СОMM 300.
The analysis and criticism of public communication events including speeches, editorials, advertisements, and mass media from a variety of rhetorical perspectives.
306. Communication Theory (3)

Conceptual perspectives and studies of coding, meaning, thinking, information, and persuasion within interpersonal, group and organizational contexts; theoretical contributions from other disciplines.
307. Measurement in Communication Research (3)

Prerequisites: COMM 306 and completion of University GE requirement in mathematics.
Application of the scientific method to the study of speech communication; examination of the role empirical methodologies play in communication research; fundamental statistical processes. Letter grade only (A-F). (Formerly COMM 305)

## 309. Language and Behavior (3)

Symbolic basis of human communicative behavior; relationship between language and behavior; investigation and analysis of discourse and behavioral effects.

## 330. Intercultural Communication (3)

Study of the realtionship between culture and communication with emphasis given to social, psychological, linguistic and nonverbal variables; problems in the practice of intercultural communication.
331. Argumentation and Debate (3)

Techniques of argumentation and their application to debate; logic, reasoning and fallacies of reasoning; experience in various forms of formal argument and debate; techniques of debate program administration.

## 333. Interpretive Communication of Literature (3)

Derivation of meaning in various literary forms and its communicative interpretation to specific audiences.

## 334. Business and Professional Communication (3)

Prerequisite: COMM 130 or consent of instructor.
Skills and technologies related to the assessment, strategic planning, development, implementation, and evaluation of effective communication in the business and professional setting.

## 335. Persuasive Speaking (3)

Prerequisites: Completion of GE Foundation requirements.
Skills necessary for advanced public speaking in various venues including legislative, legal, and ceremonial public address; explores various theories of motivation including speaker credibility, emotional appeals, of evidence and argument, style in language, delivery and audience analysis skills.

## 336. Forensic Activity (1-3)

Participation in intercollegiate forensic activities. Any student who expects to participate in such activities during the semester should enroll. Student's specific assignments will be determined in consultation with the staff.
May be repeated to a maximum of 4 units.

## 337. Conference Management (3)

Organization and direction of professional, business and political conferences or conventions; program simulation; leadership of and participation in decision making and parliamentary sessions.
May be repeated to a maximum of 6 units.

## 338. Ensemble Interpretive Reading (3)

Programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.

## 344. Theory and Techniques of Interviewing (3)

Theory and techniques of oral communication in the process of interviewing. Practical application in employment, information gathering, and persuasive interviews.

## 352. Story Telling (3)

Cultural heritage in story telling; analysis of story types for oral presentation; techniques of preparation, presentation and listening.

## 355. Communication in the Classroom (3)

Designed for prospective elementary, secondary, and community college teachers; communication theories, principles, and skills applicable to teaching generally, and to the teaching of speech communication specifically; focus on communication variables and strategies that contribute to greater student learning; develop an instructional package for teaching specific units in speech communication.

## 358. Speech Arts for Children (3)

Use of creative dramatics, improvisations, puppetry, choral speech, radio, television and group discussion for the purpose of developing fluency, responsiveness and imagination in children. Integration of speech arts activities with curricular subjects will be stressed. Opportunity to apply the theories in actual situations.

## 400. Nonverbal Communication (3)

## Prerequisites: COMM 110 Lecture.

Basic characteristics of the nonverbal elements of human communication in the oral communication setting.

## 410. Advanced Concepts in Interpersonal Communication (3)

Prerequisites: COMM 110 and 307.
Systems and symbolic interaction approaches to interpersonal communication; consideration of interpersonal needs, self disclosure, understanding, interpersonal perception, interpersonal attraction, and social conflict; rule and performance-centered theories of interpersonal communication.

## 411. Communication in Conflict Resolution (3)

Prerequisites: Completion of GE Foundation requirements, completion of one or more Explorations courses, and upper division standing.
Analytical investigation of the nature and dynamics of interpersonal conflict; approaches to the study and understanding of conflict management as examined from intrapersonal, interpersonal, intragroup, organizational, and international perspectives.

## 412. Gender and Communication (3)

Prerequisites: Completion of GE Foundation requirements, completion of one or more Explorations courses and upper-division status.
Survey of theories and research literature to increase students' understanding of and familiarity with major issues regarding communication between men and women in various contexts.

## 414. Communication in Families (3)

Prerequisites: COMM 307.
Role of communication in families; theoretical perspective of family interaction, current family issues, intercultural aspects of family interaction, effects of changing career/family roles, and intergenerational interaction.
Letter grade only (A-F).

## 415. The Rhetoric of Dissent (3)

Examines goals, strategies, and effects of groups that form to advocate social, political, and/or moral change. Focuses on how (agitator) groups communicate messages, and how institutions of power (establishment) respond in order to control or resist change.

## 420. Advanced Concepts in Organizational Communication (3)

Prerequisites: COMM 220 and 307.
Philosophy, methods and designs for studying the communication systems of complex organizations; organizational communicationneeds assessment, methods for developing and improving communication in organizations are examined.

## 421. Communication in Bargaining and Negotiation (3)

 Prerequisites: COMM 307.Role of communication in the decision-making process of negotiation and bargaining; emphasis on the functions of communication in resolving disputes through bargaining.
430. Advanced Concepts in Intercultural Communication (3)

Prerequisites: COMM 330 or consent of instructor.
Continued study of communication processes involved in interaction between people from different cultural groups; exploration of culturally variable means of thinking and behaving, and study of social psychological processes affecting all forms of intergroup interaction.
Letter grade only (A-F).
432. Communication Leadership (3)

Development of leadership skills in problem-solving communication environments; leadership theories, strategies and techniques of problem-solving and decision making.

## 433. Trends in Interpretive Communication (3)

Trends and issues in the theoretical and historical development of oral interpretation as applied to current times.

## 434. Advanced Oral Presentation Skills (3)

Prerequisite: Completion of General Education foundation courses; one or more General Education Exploration courses; and upperdivision standing.
Development of advanced skills in oral presentations, including audience analysis, presentation technologies, and multi-media applications. Special consideration paid to research and critical analysis of written and oral presentation content and delivery. Letter grade only (A-F).
436. Communication Strategies of American Speakers (3) Prerequisites: COMM 300 and 301.
Comparison and contrast of famous American speakers and their techniques, effects and environments from the colonial period to present.
437. Communication Strategies of International Speakers (3)

Prerequisites: COMM 300 and COMM 301.
Comparison and contrast of famous International speakers and their techniques, effects, and environments from Demosthenes and Churchill to Hitler and Ghandi.
Letter grade only (A-F).

## 439. Communication and Popular Culture (3)

Examines the relationship between communication and popular culture in the public sphere. The course aims at improving students' abilities to respond critically to everyday mass social messages. Letter grade only (A-F).

## 441I. Issues in Freedom of Communication (3)

Prerequisites: Upper division standing and completion of Foundation Level GE Courses, and at least two Exploration Courses.
Recommended COMM 331 or COMM 335.
The evolution and impact of First Amendment rights on American society and its political system; Emphasis on the evolution of the First Amendment, significant Supreme Court cases, the First Amendment and electronic media, and the application of case laws that deal with religion, speech, press, and assembly. Recommended for pre-law students.

## 442I. Campaign Persuasion (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing, and at least two Exploration Level Courses. It is recommended that one be COMM 331 or COMM 335.
Examination of persuasive communicative strategies in political campaigns inclusive of campaign speeches, commercials, news media coverage, image-building, audience analysis through polling, and fund raising.

## 444. Communicating Civility (3)

Prerequisites: Upper division standing and completion of Foundation Level GE courses.
Examine codes of "civilized" communication behavior historically and analytically. Identify what it means to be an ethical and civilized communicator in today's society, and appreciate professional and personal protocols for everyday use.
Letter grade only (A-F).
449. Studies in Oral Persuasion and Attitude Change (3)

Attitude formation and change through oral communication; factors in persuasion; problems determining the effects of persuasive messages; source credibility, message variables; and personality factors in the process of persuasion.

## 450. Communication Training in Organizations (3)

Nature and role of communication training in a variety of social, educational, and business organizations; the goals, structure, and impact of communication effectiveness programs are examined; audiovisual aids and communication training techniques emphasized.

## 452. Communication in the Multinational Organization (3)

Communication patterns in multinational and multicultural organizational settings; the nature and impact of different organizational structures, value systems, and cultural norms in relation to productivity, employee and organizational obligations and expectations.

## 490. Special Topics in Speech Communication (3)

Topics of current interest selected for intensive study in Communication.

May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

## 492A-B. Internship (3-3)

Prerequisite: "PERMIT" required to enroll with consent of instructor; open only to senior majors.
At least 120 hours with cooperating organizations on-or off-campus. Work directed and evaluated by instructor in consultation with supervisor of the participating organizations. Assignments will be varied.
Credit/No Credit grading only. COMM 492A is for unpaid Internship. COMM 492B is for paid internship.

## 495. Service Learning Internship (3)

Prerequisites: Communication Studies Major with Senior Standing; minimum 3.0 GPA for all college coursework taken; COMM 130 or 335 or their equivalents; COMM 352 or 355 or 358 , or the consent of instructor.
Application of academic knowledge of communication skills in the community; public speaking, listening, interpersonal communication, group communication, multicultural communication, and/or interviewing skills training (1) to students in K-12 schools or (2) to persons in the public sector.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 499. Special Studies (1-6)

Prerequisites: "Permit" required to enroll. Open to upper division students or graduate standing and consent of instructor. Approved "Agreement for Independent Study" must be on file with the Department prior to enrolling in this course.
Individualized laboratory or library research selected in consultation with instructor. Written report of the research is required. Not acceptable for graduate credit toward the master's degree.

## GRADUATE LEVEL

## 531. Administering the Forensic Program (3)

Prerequisite: "PERMIT" required to enroll with consent of instructor. Principles of constructing and administering a forensic program, including recruiting, squad direction, budgeting, tournament policies, and current literature on forensics direction.
Letter grade only (A-F).

## 541. Rhetorical Theory and Criticism I (3)

Introduction to research in rhetorical studies. Examination of major figures and schools of thought on rhetorical theory and criticism from the Pre-Socratics through the contemporary modern British era.

## 546. Communication Theory and Research I

Examination of theories and research in social cognition, interpersonal, small group, organizational, intercultural, mass, instructional, language and behavior, and nonverbal communication. Critical analysis of empirically-based articles in the field. Socialscientific research proposal required.
Letter grade only (A-F).

## 590. Special Topics in Speech Communication (3) <br> Prerequisite: Consent of instructor

Investigation of topics of current interest and concern to students in communication and allied areas.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics, but no more than 3 units may count toward the master's degree in speech communication.

## 600. Seminar in Nonverbal Communication (3)

Prerequisite: COMM 546 or consent of instructor.
Review and analysis of theoretical writings and critical studies in nonverbal communication; the relationship of nonverbal behavior to oral communication.
Letter grade only (A-F).

## 610. Seminar in Interpersonal Communication (3)

Prerequisite: COMM 546 or consent of instructor.
Current theories and research in interpersonal communication. Letter grade only (A-F).
611. Seminar in Negotiation and Conflict Resolution (3)

Prerequisites: COMM 411 or 421 and 546 or consent of instructor. Investigation, analysis, and criticism of the nature, development, and dynamics of conflict and the role of negotiation in interpersonal, group, organizational, and international and intercultural communication; study and understanding of conflict management. Letter grade only (A-F).

## 614. Gender and Family Research (3)

Major theoretical perspectives on the role of communication in family and gender issues; epistemological, conceptual, and methodological issues in researching family and gender communication.
Letter grade only (A-F).

## 620. Seminar in Organizational Communication (3) <br> Prerequisite: COMM 546 or consent of instructor.

Theories and models of communication in large organizations; design and management of organizational communication systems. Letter grade only (A-F).
625. The Dark Side of Communication (3)

Prerequisite: COMM 546 or consent of instructor.
Examines communication interactions that are difficult, distressing, and disruptive in personal and/or professional relationships in order to gain insight into better ways of managing these interactions and to examine the theoretical bases of what is viewed as "normal" forms of relating.
Letter grade only (A-F).

## 630. Seminar Intercultural Communication (3)

Prerequisites: COMM 541 and 546 or consent of instructor.
Analysis of cultural influences on interpersonal communication; emphasis given to cultural values, perception, social organization, language and nonverbal codes; development of strategies of effective intercultural communication in international and domestic settings.

## 632. Seminar in Small Group Communication (3)

Prerequisite: COMM 546 or consent of instructor.
Research in small group discussions.
Letter grade only (A-F).
633. Seminar in Interpretive Communication (3)

Prerequisite: COMM 541 or consent of instructor.
Theories of communicative interpretation of literature, with emphasis on the theory and evaluation of oral presentation of literature as art form and pedagogical instrument.
Letter grade only (A-F).

## 635. Seminar in Communication Criticism (3)

Prerequisite: COMM 541 or consent of instructor.
Critical theories of rhetoric and major systems of communication criticism; development of criteria and approaches for the evaluation of select communication acts and contexts.
Letter grade only (A-F).
636. Seminar in American Public Communication (3)

Prerequisite: COMM 541 or consent of instructor.
Studies of American rhetorical events and their social, political and intellectual settings; application of rhetorical theory in the analysis of these events.
Letter grade only (A-F).
637. Seminar in International Public Communication (3)

Prerequisite: СОMM 541 or consent of instructor.
Studies of international rhetorical events and their social, political, and intellectual settings; application of rhetorical theory in the analysis of these public communication events.
Letter grade only (A-F).
638. Seminar in Greek and Roman Public Communication (3)

Prerequisite: COMM 541 or consent of instructor.
Studies of Greek and Roman rhetorical events and their social, political and intellectual settings; application of rhetorical theory in the analysis of these events.
Letter grade only (A-F).

## 639. Seminar in Communication and Popular Culture (3)

Prerequisite: COMM 541 or consent of instructor.
Survey of literature on rhetoric, critical studies, and popular culture to provide a basis for investigating communication in popular culture.
Letter grade only (A-F).

## 640. Rhetorical Theory and Criticism II (3)

Prerequisite: COMM 541.
Examination of major figures and themes in rhetorical theory and criticism in the contemporary era.
646. Communication Theory and Research II (3)

Prerequisites: COMM 307 (or equivalent) and 546.
Empirical research methodologies applied to communication research; theory and design of scientific research; analysis of findings; computer applications; research report required.

## 648. Seminar in Language and Behavior (3)

Prerequisite: COMM 546 or consent of instructor.
Contemporary theories and models in linguistic, psycholinguistic and sociolinguistic research; communication discourse and speech acts analysis.
Letter grade only (A-F).

## 649. Seminar in Persuasion and Attitude Change (3)

Prerequisite: COMM 546 or consent of instructor.
Contemporary theories and models of persuasion; structure and relationships of beliefs, values and attitudes; methods of assessing persuasive effects; analysis of research literature.
Letter grade only (A-F).

## 650. Seminar in Instructional Communication (3)

Prerequisites: COMM 541 and 546 or consent of instructor.
Designed for teachers/trainers, the course will identify communication variables and strategies which contribute to greater student/client learning as well as greater satisfaction with the learning process. Students will develop an instructional/training package.
Letter grade only (A-F).

## 697. Directed Research (1-6)

Prerequisites: COMM 541 and 546; authorization of the department Graduate Advisor, Agreement for Independent Study Course form, consent of instructor.
Directed research leading to the definition and discussion of a selected problem or issue in communication and the presentation of research results in a formal paper submitted to the department.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F).

## 698. Thesis (2-4)

Prerequisites: COMM 541, 546, 640 and 646, authorization of the department Graduate Advisor, Agreement for Independent Study Course form, consent of instructor.
Preparation, completion and submission of an acceptable thesis in partial fulfillment of the requirements for the Master's degree.
Credit/No Credit grading only.

## COMMUNICATIVE DISORDERS <br> College of Health and Human Services

Department Chair<br>Carolyn Conway Madding<br>Department Office<br>Language Arts Building (LAB), Room 102<br>Telephone<br>(562) 985-4594<br>FAX<br>(562) 985-4584<br>Clinic Office<br>Language Arts Building (LAB) Room 112<br>Telephone<br>(562) 985-4583<br>Faculty<br>Professors<br>Randall C. Beattie, Carolyn Conway Madding, Jim Till<br>Associate Professors<br>Geraldine P. Wallach<br>Undergraduate Advisor<br>Randall C. Beattie<br>Graduate Advisor<br>Betty McMicken<br>Clinic Director<br>Geraldine P. Wallach<br>Technician<br>Rodney Pau<br>Department Administrator<br>Patty Fabian

The Communicative Disorders Department provides undergraduate course work for students planning careers in speech-language pathology or audiology. Departmental majors may complete work leading to the Bachelor of Arts degree in Communicative Disorders and Master of Arts degree in Communicative Disorders with a Specialization in Speech-Language Pathology, as well as the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association and the requirements for licensure by the State of California.

Students seeking special education credentials may obtain specific credentials while completing the Master's degree. Students in allied health fields and linguistic sciences will find courses to supplement their regular majors.

The department maintains a language, speech and hearing clinic to serve as a clinical and research laboratory on campus for both graduate and undergraduate students. Field placements are available in the many nearby hospitals, rehabilitation agencies and nonprofit language/ speech/hearing clinics.

Students desiring information should contact the department office for referral to one of the faculty advisors: Undergraduate Advisor, Graduate Advisor, Field Service Coordinator, and Clinic Director.

The Department of Communicative Disorders offers graduate study leading to the Master of Arts degree in Communicative Disorders with a Specialization in Speech-Language Pathology. This coursework meets requirements for certification by the American Speech and Hearing Association (American Speech-Language-Hearing Association, Council on Academic Accreditation, 10801 Rockville Pike, Rockville, MD 20852, phone: 301-8975700), licensing by the State of California, and appropriate educational credentials.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Communicative Disorders (code CD__BA01) (120 units)

Students desiring a Bachelor of Arts degree in Communicative Disorders must complete the following required courses:

Lower Division: C D 261, 271; PSY 110 or equivalent.
Upper Division: C D 329, 330, 373, 431, 440, 456, 460, 466, 472, 476, 477, 481A, 481B, 483, 489.

## Credentials for Service in Public Education

This credential is being considered for discontinuance and no new students will be admitted as of fall 2007.
Clinical-Rehabilitative Services Language, Speech and Hearing Specialist Credential (code 901)
Candidates must:

1. Complete the master's degree in speech-language pathology.
2. Complete EDSP 350 and 564; C D 483, 489, 686A (Field Experience(s) in order to complete 100 contact hours as a Language, Speech and Hearing Specialist trainee in the school setting).

## Clinical-Rehabilitative Services Audiologist Credential (code 903)

Candidates must:

1. Complete the master's degree in audiology.
2. Complete EDSP 350; C D 280, 281, 669G, and 680 (internship to be completed in the schools in order to complete 100 contact hours as an Audiologist trainee in a public school environment.)

## Clinical-Rehabilitative Services Language, Speech and Hearing Specialist Credential with Special Class Authorization to Teach Language Disordered Children (code 910)

Candidates must:

1. Complete the master's degree in speech pathology;
2. Complete EDSP 350 and 564; C D 483, 489; EDEL 550, 686A; EDCI 560, 570.

## GRADUATE PROGRAMS

## Master of Arts in Communicative Disorders (code CD__MA01)

## Admission to the Graduate Program

Enrollment in 500/600 level courses in communicative disorders is restricted to students who have been accepted to the graduate program of the department as unconditionally classified. Students wishing to be admitted must complete the following procedures:

1. Students must meet the criteria for acceptance by the University as a graduate student;
2. Every student (new or continuing) must apply to the Office of Admissions and Records to obtain admission to the University with graduate standing;
3. Every student then must apply to the Department of Communicative Disorders for admission to the graduate program using the department application form. This form must be filed with the graduate advisor by February 1 for admission in the fall semester. The following supportive materials must be filed with the department admission application:
A. Change of objective form available at department office (continuing CSULB students only);
B. Official transcripts of all undergraduate and graduate work. (These transcripts are in addition to those required by the Office of Admissions and Records.) These transcripts should reflect the following minimum criteria:
(1) a GPA of 3.0 or better in the last 60 units of coursework; and
(2) confirmation of acceptable GPA obtained during the final senior semester.
C. Three recommendations from academic faculty in Speech-Language Pathology, Linguistics, etc. Our standard recommendation forms can be obtained from the Graduate Advisor and must be completed.
D. Results of the Graduate Record Examination (GRE). Students must make arrangements to take this test in the semester prior to filing for admission to the department graduate program. This is to insure that the student's test results will be available by the filing date since test scores are used as one criterion for acceptance into the graduate program. Students can make arrangements to take the GRE at the Testing Office in SS/AD Rm 216. The Testing Office will supply students with further information and provide them with a description and sample items.
4. Any deficiencies will be determined by the department graduate committee after consultation with the student and the student's faculty advisor and study of transcript records.
5. Student will have completed one of the two prerequisites listed in the next section.

## Prerequisites

1. A bachelor's degree from an accredited institution with a major in communicative disorders (speech speech and hearing science, etc.); or
2. A bachelor's degree from an accredited institution. The applicant must have at least 33 units of course work by the first semester of admission to the graduate program in speech science or speech pathology, including courses in (a) anatomy and physiology, (b) phonetics, and (c) speech and hearing science. If student has not completed sufficient units or courses to meet this requirement, he/she may enroll in the University as a conditionally classified graduate student to complete the required undergraduate courses prior to applying to the Graduate Program in Communicative Disorders.
Although the student may apply to our Graduate Program with a minimum of 33 units in Speech-Language-Hearing, all courses required for the B.A. in Communicative Disorders at CSULB (with the exception of C D 431 and 432), or equivalent courses, must be completed before the M.A. in Communicative Disorders will be awarded.

## Advancement to Candidacy

In order to be advanced to candidacy for a Master's degree, a student must meet the following criteria:

1. enrollment in the semester or summer session in which advancement takes place;
2. satisfactory completion of C D 696 and three additional units;
3. satisfactory fulfillment of the CSULB Graduation Writing Assessment Requirement (GWAR). The GWAR must be fulfilled before the student is advanced to candidacy;
4. maintenance of a GPA of at least 3.0 in (a) all graduate work completed in Communicative Disorders, (b) all graduate work completed at CSULB, and (c) all graduate work transferred to meet graduation requirements with no grade below "C";
5. filing of the student Program for the Master of Arts Degree in Communicative Disorders after completion of items 2-5;
6. the Department's standard written program of graduate courses approved by the student's department advisor, the department graduate advisor, the department chairperson, and the College of Health and Human Services Associate Dean.

## Speech-Language Pathology Specialization

## Requirements

Forty-one (41) units of course work are required: C D 696, 662, 663, 664, 665, 666, 669A, 669C, 669D, 669F, 669G, 669J, 669L; C D 670 or C D 686A, and C D 698 or 695 (Comprehensive Examinations) plus a three-unit elective. Within the context of the C D 669L clinical course, the student will complete a minimum of 25 hours of clinical experience under appropriate supervision with a client determined to be of a language or dialect different from that of the student clinician. C D 483 and 489 and/or C D 460, or equivalent content, are prerequisite to C D 669L.

Regulations governing the preparation and eligibility for the administration of comprehensive examination options are available in the Department Office. Departmental regulations concerning preparation of theses are also available in the office.

## Courses (C D)

## LOWER DIVISION

## 60. Special Topics (1)

Prerequisite: Consent of instructor.
Speech, language and hearing therapy to students enrolled in the University.
May be repeated to a maximum of 2 units.

## 260. Introduction to Communicative Disorders (3)

Features of human communication dysfunction. Survey of major communicative disorders. Role of speech-language pathologist and audiologist in medical, educational, and private practice settings.

## 261. Anatomy and Physiology of the Speech and Hearing Mechanism (3)

Anatomical, physiological and neurological components of the speech and hearing mechanism. Designed for students planning to enter the clinical program in communicative disorders.

## 271. Phonetics (3)

Phonetic basis of speech sounds and the various factors which influence pronunciation. Consideration is given to linguistic variations, regional dialects and standards.
(Lecture 2 hours, laboratory 2 hours.)

## 280. Sign Language (3)

Sign Language and Non-Vocal Communication System. Origin, development and principles of sign language. Practice with American Manual Alphabet, American Sign Language and Signing Exact English to provide basic conversational skills; other sign systems and modes of non-vocal communication are discussed.

## 281. Intermediate Sign Language (3)

Prerequisite: C D 280.
Continuation of C D 280 with emphasis on development of receptive/expressive skills and building of vocabulary.
Introduction into use of sign language in educational and therapy settings. Discussion of philosophical and cultural aspects of the deaf community.
Required for school audiology credential. Letter grade only (A-F).

## UPPER DIVISION

## 329. Introduction to Language Acquisition (3)

Introduction to the study of the acquisition of first and second languages. Linguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The influence of developmental stages and social and cultural factors on the individual.
Letter grade only (A-F). Same course as LING 329.

## 330. Speech and Hearing Science (3)

Prerequisite: CD 261.
Examinination of the anatomical, physiological, psychological and acoustic aspects of speech. Through readings, discussions, videos, and interactive software the student is expected to become more aware and analytical of the instrumentation and scientific basis of production and perception of speech.
(Lecture/discussion) Letter grade only (A-F).

## 373. Audiology I (3)

Introduction to audiology; acoustics, anatomy and physiology of the ear, pure-tone audiometry/masking, speech audiometry/ masking, principles of taking a case history, and report writing.

## 431. Pediatric Audiology (3)

Prerequisite: C D 373.
Sources of hearing impairment (HI) in children birth through school age. Nature of HI in children and effects on communicative function. Procedures for identification (screening), assessment, and intervention (including parent counseling) for HI children. (Lecture 2 hours, laboratory 3 hours.)

## 432. Audiology II (3)

Prerequisites: C D 373.
Anatomy/pathology/ evaluation of the (1) outer and middle ears, (2) inner ear, (3) central auditory system, and (4) functional hearing loss, taking case history, and report writing.

## 440. Aural Rehabilitation for the Hearing Impaired (3)

Prerequisites: C D 373 and 431 or 432.
Nature of hearing impairment and impact on communicative function. Procedures for assessment and management of hearing loss, including amplification, counseling, and self-report scales. Focus is primarily adult clients but will include some information regarding children.

## 456. Speech Pathology I: Disorders of Phonology (3)

 Prerequisites: CD 261, 271.Etiology, assessment and treatment of disorders of phonology. (Lecture/discussion) Letter grade only (A-F).
460. Speech and Language Assessment of

Linguistically and Culturally Diverse Clients (3)
Provides understanding of non-discriminatory assessment process for linguistically and culturally diverse clients referred for speechlanguage assessment. Includes information relative to cultural differences, use of interpreters/translators, biases of assessment, and differential diagnoses, such as language disorder versus language difference.
(Lecture/discussion) Letter grade only (A-F).

## 466. Speech Pathology II: Fluency Disorders (3)

Prerequisites: CD 261, 271.
Etiology, assessment, and therapy for disturbances in fluency of speech with emphasis on psychological, physiological, and linguistic variables correlated to disfluent behaviors.
(Lecture/discussion) Letter grade only (A-F).

## 472. Alternative and Augmentative Communication (3)

Prerequisites: CD 261, CD 329.
Designed to provide the student with an understanding of relevant topics in alternative and augmentative communication (AAC), assistive technology (AT), and the assessment and management of patients with severe communication impairments. Topics addressed will be discussed relative to a variety of disabilities in both pediatric and adult patients, across varying communication environments.
(Lecture/discussion) Letter grade only (A-F).

## 476. Speech Pathology III: Disorders of Voice/Oro-facial

 Mechanism (3)Prerequisites: CD 261, 329.
Processes of phonation and resonance and their application to etiology, diagnosis and therapy of functional and organic voice disorders, such as those arising from laryngeal pathology, vocal abuse, neurological impairment, auditory impairment and oro-facial abnormalities.
(Lecture/discussion) Letter grade only (A-F).

## 477. Disorders of Swallowing (3)

Prerequisite: CD 261.
Anatomy, physiology, and neuroanatomy involved in the normal four stages of swallowing. Neurological and oncologic disorders which affect the swallow process will be examined. Evaluation of the patient with dysphagia (swallowing disorders) will include both clinical and instrumental analysis. Treatment plans based on history and evaluative results will be designed and examined.
(Lecture/discussion) Letter grade only (A-F).

## 481A. Speech Pathology IV: Disorders of Language (3)

Prerequisites: CD 271, 329.
An analysis of the components of language and how each is involved with language disorders in children. Provide for the understanding and recognition of variables for the assessment and clinical management of such children.
(Lecture/discussion) Letter grade only (A-F).

## 481B. Speech Pathology IV: Disorders of Language Neuropathologies (3)

Prerequisites: CD 261, 330.
Neurophysological and neurolinguistic basis for language and speech disorders associated with central nervous system pathologies. Provides for the recognition and understanding of variables for the assessment and clinical management of such disorders.
(Lecture/discussion.) Letter grade only (A-F).
483. Assessment of Monolingual and Bilingual Clients (3)

Prerequisites: CD 261, 271, 329, 330.
Principles underlying assessment procedures in speech language disorders for both monolingual and bilingual clients. Focus is on the cultural and linguistic variables affecting standardized and nonstandardized assessment procedures.
(Lecture 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

## 489. Management of Monolingual and Bilingual Clients

 (3)Prerequisites: CD 483. Prerequisites or corequisites: At least 4 of the following: CD 456, 466, 476, 481A, 481B.
Management of speech and language disorders for monolingual, bilingual, and/or bicultural clients. Relationship of assessment to management, formulation of goals, objectives, task analyses and maintenance. 25 hours observation in schools, campus clinic, and hospital/rehabilitation settings.
(Lecture 2 hours, laboratory 3 hours.)

## 491. Proctoring in Communicative Disorders (2-3)

Students shall engage in peer teaching and examination scoring in undergraduate courses under the specific direction of the course instructor.
Open only to students who have achieved the grade of " $A$ " in the course in which they are serving as proctor. May be repeated to a maximum of 6 units.
499. Directed Studies in Communicative Disorders (1-3) Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 6 units. Not acceptable for graduate credit toward the master's degree.

## GRADUATE LEVEL

## 530. Audiological Instrumentation (3)

Prerequisite: Consent of instructor.
Acoustics/ decibel, psychoacoustics, calibration of pure-tone and speech audiometers, sound field calibration, industrial audiology and noise measurement.
(Lecture 1 hour, laboratory 6 hrs.) Letter grade only (A-F).

## 574. Hearing Aids (3)

Prerequisite: Consent of instructor
Electro-acoustic characteristics, hearing aid evaluation in children and adults, probe tube measurements, earmolds, binaural hearing aids, CROS and its modifications, batteries, assistive listening devices, hearing aid orientation and counseling, cochlear implants, classroom amplification and acoustics, hearing aid dispensing.

## 590. Advanced Topics and Current Issues in Communicative

 Disorders (1-3)Selected topics from the most recent developments and issues in speech-language pathology and audiology. Course content will vary with each offering.
May be repeated to maximum of 3 units with different topics. Topics will be announced in the Schedule of Classes.
662. Seminar in Language Disorders in Children (3)

Prerequisite: C D 481A, 696.
Components of language, cognitive and perceptual abilities and communication are examined in children with normal and impaired language development. Major approaches to language intervention are discussed.
Letter grade only (A-F).
663. Seminar in Disorders of Phonology (3)

Prerequisites or corequisite: CD 456.
Information in the description, assessment and treatment of phonological disorders. Survey of current literature and practices. Practice in conducting procedures.
Letter grade only (A-F).

## 664. Seminar in Disorders of Voice and the Oro-facial

 Mechanism (3)Prerequisites: C D 476, 696.
Selected problems in voice disorders through an investigation of the literature and clinical research.
Letter grade only (A-F).
665. Seminar in Language Disorders in Adults (3)

Prerequisites: C D 481B, 696.
Provides an understanding of neuropathological substrates of language disorders in adults resulting from brain damage. Provides for the recognition and assessment of the syndromology and clinical aspects of adult language disorders relative to current research.
Letter grade only (A-F).
666. Seminar in Speech Motor and Swallowing Disorders (3) Prerequisites: CD 466, 696.
Historical and current research and its effect upon the assessment and management of speech motor and swallowing disorders.
Letter grade only (A-F).

## 669A. Clinical Practice in Phonological Disorders (2)

Prerequisites: C D 489; prerequisite or corequisite: C D 663 and consent of instructor.
Student conducts assessment of phonological disorders and management of therapy, under supervision, with clients in the university speech and hearing clinic. Students handle all aspects of clinical program including initial interviews, parent counseling, and testing.
Letter grade only (A-F).

## 669C. Clinical Practice With Language Delayed/Disordered Children (2)

Prerequisites: C D 483, 489; prerequisite or corequisite: C D 662 and consent of instructor.
Students provide assessment and management of preschool and school-age children with identified delays/disorders. Under supervision, the practicum includes standardized and non-standardized assessment, parent interviews and conferences, development and implementation of a management program and report writing.
Letter grade only (A-F).

## 669D. Clinical Practice with Voice and Oro-facial Mechanism Disorders (2)

Prerequisites: C D 489; prerequisite or corequisite: C D 664 and consent of instructor.
Student conducts therapy sessions under supervision for persons with functional and/or organic voice disorders. Practicum includes initial interviews, diagnostics, therapy program planning, counseling and report writing.
Letter grade only (A-F).

## 669F. Clinical Practice with Fluency Disorders (2)

Prerequisites: C D 489; prerequisite or corequisite: C D 666 and consent of instructor.
Assessment, planning, and management in a supervised clinical experience with persons who have fluency disorders.
Letter grade only (A-F).

## 669G. Clinical Practice in Audiology (2)

Prerequisites: C D 431, 432, 440, and consent of the instructor. Student will conduct individual and group therapy with hearing impaired clients, as well as audiological evaluation of hearing impaired persons.
Letter grade only (A-F).

## 669H. Clinical Practice-Special Programs (2)

Prerequisites: At least one of the C D 669A through J courses.
Specialized practice placement to obtain experience with speech, language, and hearing disorders.
May be repeated to a maximum of 4 units. Letter grade only (A-F).
669J. Clinical Practice with Language Disordered Adults (2)
Prerequisites: C D 489; prerequisite or corequisite: C D 665 and consent of instructor.

Student conducts clinical management sessions, under supervision, for adults with neurological language disorders. Practicum includes initial interviews, assessment, management program planning, counseling and report writing, and application of research findings to the clinical process.
Letter grade only (A-F).

## 669L. Clinical Practice with Linguistically Different Clients (2) F, S

Prerequisites: 1) Completion of all disorder-specific graduate seminars; 2) completion of a minimum of 3 core clinics (CD 669 AJ); 3) CD 483 and 489, or equivalent as approved by the instructor) and consent of instructor.
Assessment/management of speech-language disorders in clients whose native language is different than that of the clinician. Training of bilingual interpreters.
Minimum 25 clock hours required.Letter grade only (A-F).
670. Internship in Speech and Language Pathology (5) Prerequisites: C D 669A or C,D,F,G, and J with a GPA of 3.0.
Advanced clinical supervised practice with speech and language disordered persons in either a hospital, rehabilitation agency or speech and language center.
Letter grade only (A-F).

## 673. Assessment of Outer, Middle, and Inner Ears (3)

Prerequisite: Consent of instructor.
Advanced masking concepts, anatomy/physiology/pathology of the outer-middle-inner ears, immittance testing, calibration of immittance meters, functional hearing loss.
Letter grade only (A-F).

## 674. Seminar in Audiology: Current Topics in Hearing and Hearing Aid Evaluation (3)

Prerequisite: Consent of Instructor
Review of literature regarding contemporary topics. Focus on amplification (e.g., hearing aids), assessment and management of hearing loss in adults and children. Emphasis on student participation and collaboration. Literature review and presentation required.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 675. Assessment of Central Auditory Nervous and Vestibular Systems (3)

Prerequisite: Consent of instructor.
Anatomy/ physiology/pathology of the 8th cranial nerve, vestibular system, brainstem, and central auditory system; auditory evoked potentials, calibration of auditory evoked systems, tone decay, Bekesy, SISI, ABLB, electronystagmography, functional hearing loss.
Letter grade only (A-F).

## 679. Practicum in Audiology (2-10)

Prerequisites: CD 431, 432, 440 or consent of instructor.
Student conducts evaluation and rehabilitation of persons with hearing disorders.
May be repeated to a maximum of 10 units. Letter grade only (A-F).
680. Internship in Audiology (5)

Prerequisites: CD 669A or B or C, 679 and 669G, or consent of the instructor.
Advanced clinical practice in audiology with hearing impaired persons in a community facility.
Letter grade only (A-F).

## 686A. Advanced Field Studies with Communication Handicapped (5)

Prerequisites: Passing of CBEST, completion of CD 662, 664, 665, 666 and all but one of the following: 669A, 669C, 669D, 669F, 669G, 669 J.
Clinical Rehabilitation Services, Language Speech and Hearing Specialist candidates participate in supervised clinical practicum in an off-campus itinerant speech and language setting(s) for the equivalent of one semester earning 5 units of field study. Enrollment by application to the Communicative Disorders Department only.
Credit/No Credit grading only. (Fieldwork)
695. Directed Readings (1-3)

Prerequisite: Consent of instructor.
Readings in communication sciences/disorders. Required of all candidates for the master's degree not electing the thesis option.
Under special circumstances, may be repeated to a maximum of 6 units. Letter grade only (A-F).

## 696. Research Methods: Applied and Basic (3)

Prerequisite: PSY 110 or equivalent or consent of instructor.
Professional issues related to research and clinical settings. Application of scientific method, experimental design (group and single subject) and related statistical methods (parametric and nonparametric). Evaluate literature in the field.
(Lecture 3 hours.) Letter grade only (A-F).
697. Directed Research (1-3)

Prerequisite or corequisite: C D 696 and consent of instructor. Independent research under supervision of a faculty member. Letter grade only (A-F).
698. Thesis (1-4)

Prerequisites: Advancement to candidacy for master's degree.
Preparation, completion and submission of an acceptable thesis in partial fulfillment of the requirements for the master's degree.

## COMPARATIVE WORLD LITERATURE

College of Liberal Arts

Department Chair<br>J. Charles Jernigan<br>Department Office<br>McIntosh Humanities Building (MHB), Room 517<br>\section*{Telephone / Fax}<br>(562) 985-4239 / (562) 985-4863<br>Website<br>www.csulb.edu/depts/complit/<br>\section*{Professors}<br>Conrad Barrett, Roland E. Bush, Douglas Domingo-Forasté, Carl Fisher, J. Charles Jernigan<br>\section*{Associate Professors}<br>Alwin Baum, Elizabeth Dahab, Vlatka Velcic, Teri Yamada<br>\section*{Assistant Professors}<br>Kathryn Chew<br>Administrative Support Coordinator<br>Lisa Behrendt

Students desiring information should contact the department office for an appointment with the advisor.

~omparative World Literature is the study of foreign literatures in translation and the relationships among those literatures and between literature and other fields such as art, music, history, philosophy, and theatre. At CSULB, Comparative World Literature also offers a strong focus in cultural studies and mythology as bases for understanding literature and for the ways we see ourselves in a multicultural environment. Suggested preparation: course work in world literature, history, English composition, and foreign language.

## Bachelor of Arts in Comparative World Literature (code C/LTBA01) (120 units)

The Bachelor of Arts in Comparative World Literature consists of the Core of 24 units and one of the three emphases that follow.

## The Core

24 units, required for every emphasis, distributed as follows:

1. CWL 330A and 330B.
2. Genre. At least one of the following: CWL 346, 405, 420, 4221*, 440, 451**, 453, CLSC 420I*.
3. Author. At least one of the following: CWL 430, 449.
4. Non-Western or Mythology. At least one of the following: CWL 334, 336, 342*, 350, 402, 403, 440, 445, 452.
5. Theory. At least one of the following: CWL 361, 365, 461.
6. Literary Movement or Comparative Study. At least one of the following: CWL 344, 349, 404, 406, 410, 448, CLSC 3111*, 312I*.
7. European Period. At least one of the following: CWL 431, 432, 435, 437, 438.
Note: CWL 440 may be used in both groups 2 and 4 with appropriate different topics.

* may be used to satisfy Core requirements with approval of course instructor and completion of supplementary work.


## Emphasis I: Language and Literature

The traditional undergraduate major in comparative world literature, designed to prepare the student for graduate study in comparative world literature or related fields.

## Requirements

1. The 24 Unit Core.
2. The First Concentration. 12 upper division units in one foreign language, six of which must be in literature classes. If a language is chosen which offers a limited number of courses, some lower division units will suffice, but they must be, as a minimum, the equivalent of four semesters of college study.
3. The Second Concentration. 12 upper division units in any one of the following areas: American Indian Studies, Art History, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, English Literature, English-Option in Creative Writing, film studies, History, music history, Philosophy, Religious Studies, Theatre Arts, Women's Studies, or a second foreign language.
If the concentration is in American Indian Studies, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, English-Option in Creative Writing, Theatre Arts, Women's Studies, or a second foreign language area, 6 of the units must be in literature courses. If the concentration is in Theatre Arts, Women's Studies or film studies, appropriate courses may be chosen from any department offering such courses, including Comparative World Literature and Classics.

## Emphasis II: World Literature

This emphasis offers a broad background in world literature in translation with a strong concentration in one specific related field. It is also appropriate for the student who elects the comparative world literature teaching option of the English Single Subject Credential program.

## Requirements

1. The 24 Unit Core.
2. The Concentration. 18 upper division units in one of the following areas: American Indian Studies, Art History, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, English Literature, English-Option in Creative Writing, English-Option in English Education (Comparative Literature Emphasis), film studies, History, music history, Philosophy, Religious Studies, Theatre Arts, Women's Studies, or a single foreign language.
If the concentration is in American Indian Studies, Asian

Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, English-Option in Creative Writing, Theatre Arts, Women's Studies, or a foreign language area, at least 9 of the units must be in literature courses. If the concentration is in an ethnic studies area, Women's Studies, Theatre Arts or film studies, appropriate courses may be chosen from any department offering such courses, including Comparative World Literature and Classics. Students taking the English-Option in English Education must take the 35 unit English Education core and must consult with an English education advisor as well as a Comparative World Literature advisor.

Foreign Language Requirement. Reading proficiency in a foreign language is required. Proficiency may be certified by examination or by successful completion of four semesters of college study of the foreign language, or equivalent. Consult a department advisor.

## Emphasis III: Cultural Studies

Cultural Studies is the interdisciplinary and multicultural study of literary and other forms of cultural expression analyzed within their social and historical contexts. This emphasis is designed for students wishing to concentrate in cultural studies firmly grounded in literary study. It provides for an interdisciplinary pattern of courses in cultural studies drawn from various disciplines with the approval of a faculty committee.

## Requirements

1. The 24 Unit Core.
2. The Cultural Studies Concentration. 18 upper division units in appropriate cultural studies courses, approved by a faculty committee and drawn from the following departments or areas: American Indian Studies, Anthropology, Art History, Asian and Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, Dance, English, Film and Electronic Arts, History, Romance, German, Russian Languages and Literatures, Women's Studies, or other appropriate departments and areas of study. The faculty committee shall consist of the Chair of the Department of Comparative World Literature and Classics and one additional full time faculty member in Comparative World Literature. Students are strongly encouraged to select a faculty committee and have their pattern of course work approved by the beginning of the junior year, but it must be approved by the beginning of the senior year.
Foreign Language Requirement. Basic reading knowledge of one foreign language is required. It may be certified by examination or by successful completion of two semesters of college study, or the equivalent. Consult a department advisor.

## Minor in Comparative World Literature (code C/LTUM01)

In addition to the bachelor of arts degree, the Department offers a minor in comparative world literature. The minor provides a flexible program for the student who is majoring in another discipline, but who is interested in comparative world literature either for professional advantages or for intellectual enrichment.

## Requirements

A minimum of 18 units in comparative world literature, of which at least 12 are upper division excluding CWL 499.

## The Center for Medieval and Renaissance Studies

The Center for Medieval and Renaissance Studies offers two programs to students who want to study medieval and Renaissance political and social history, art, literature, philosophy, religion, music, and drama. Undergraduate students can pursue a Certificate or a minor in Medieval and Renaissance Studies. Graduate students can pursue a Certificate in Medieval and Renaissance Studies. Interested students should turn to the catalog section entitled "Medieval and Renaissance Studies" and/or contact the program directors in MHB 512.

## Comparative World Literature Courses (CWL)

## LOWER DIVISION

## 100. Introduction to World Literature (3)

Prerequisite/Corequisite: Any G.E. Foundation course.
Readings in translation from world literature. Emphasis on how literature engages unique cultural elements around the world as well as cross-cultural comparisons.
101. Introduction to Comparative World Literature (3)

Prerequisite/Corequisite: Any G.E. Foundation course.
An introduction to the basics of literary interpretation and comparative literature. Strongly recommended for majors in Comparative World Literature.

## 103. Introduction to Comparative Asian Literature and Culture (3)

Prerequisite/Corequisite: Any G.E. Foundation course. Introduction to two major Asian cultures-India and China-through an exploration of their literatures, cultures, and diasporas. Focus will be on the modern period.

## 104. Literature and Culture of the Middle East (3)

Prerequisite/Corequisite: Any GE Foundation course.
Introduction to Middle Eastern and North African culture through an exploration of their literatures, with a focus on some of the major figures of the twentieth- and twenty-first centuries, such as Naguib Mahfouz, Ghassan Kanafani, Edward Saîd, and others.
Letter grade only (A-F).
124. Introduction to World Theatre and Drama (3)

Prerequisite/Corequisite: Any G.E. Foundation course.
Introduction to all aspects of theatre including criticism, dramatic literature, movements, themes, historical background and theatrical production from different parts of the world.

## 132. Folklore and Mythology (3)

Prerequisite/Corequisite: Any GE Foundation course.
Introduction to the study of mythology and folklore in a global context, with an emphasis on their application in literature.

## 161. Reading the World (3)

Prerequisite/Corequisite: Completion or concurrent enrollment in ENGL 100 or equivalent.
Introduction to contemporary theories of reading and interpretation. Examination of diverse forms of human expression and critical understanding from around the world and across the disciplines designed to develop and refine a broad repertoire of reading tools and practices.

## 250. European Literature and the Other Arts I (3)

Prerequisites: Completion of GE Foundation requirements Investigation of the interrelationships between the arts. Analysis of literary, fine art and music materials from ancient periods through the Middle Ages in regard to movements, techniques, philosophies and formal organization to achieve artistic expression.

## 251. European Literature and the Other Arts II (3)

Prerequisites: Completion of GE Foundation requirements Interrelationships among the arts through analysis of literary, fine art, and music materials in the western world from the Renaissance to the present. Movements, techniques, philosophies and the formal organization necessary to achieve artistic expression will be examined.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 315. Literature and Medicine (3)

Prerequisite: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the complex relationship between medicine and human experience, integrating materials from the humanities and social sciences to explore diverse experiences across cultures, between and among genders, and in various economic and social contexts.
Letter grade only (A-F).

## 320I. Comic Spirit (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Study of comedy as a literary genre and of the manifestation of the comic spirit in related art forms such as music, art, and film, focusing on the history and philosophy of comedy as well as theories of laughter.

## 324I. Theatre Today (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Examines current trends, achievements and problems in contemporary western theatre and dramatic literature. Particular attention will be paid to multicultural expression in the theatre.
Same course as THEA 324I.

## 330A,B. Masterpieces of European Literature (3,3)

Prerequisite: One course in literature or consent of instructor.
Representative selections, in translation, of European texts to and since the Renaissance, and their relation to the development of Western civilization.

## 334. Introduction to East Asian Literatures and Cultures

 (3)Prerequisites: Completion of GE Foundation requirements.
Comprehensive introduction to comparative study of East Asian cultures through reading of representative selections from literatures of China, Korea, and Japan in historical context. Focus on modern period.

## 336. Introduction to Southeast Asian Literatures and Cultures (3)

Prerequisites: Completion of GE Foundation requirements.
A survey of the traditional and modern literatures and cultures of Southeast Asia with a focus on the modern period.
342. The Bible as Literature (3)

Prerequisite: Completion of GE Foundation requirements.
Reading of representative Biblical selections interpreted from a literary standpoint.

## 344. Literature of the Holocaust (3)

Prerequisites: One course in literature or consent of instructor. Intensive study of literary works of different genres and cultural backgrounds, from 1945 to the present, to analyze the strategies writers use to present the historical events and the cultural reverberations of the Holocaust.

## 346. Readings in World Poetry (3)

Prerequisite: One course in literature or consent of instructor.
Representative selections of the poetry of the world from the earliest examples to the present. Facing-page translations will be included.

## 349. Literary Movements (3)

Prerequisite: One course in literature or consent of instructor. Intensive study of a movement or theme in world literature. Specific movement or theme will be announced in the Schedule of Classes.
May be repeated to a maximum of 9 units with different topics.
350. Global Literature in American Culture (3)

Prerequisites: Completion of the GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Comparative and thematic study of transnational literary culture, as represented in at least three distinct American ethnic groups. Readings examined in relation to contemporary global themes and in relation to the original national literatures.

## 361. Masterpieces of Literary Criticism (3)

Study of literary criticism from Plato to the present, focusing on history of literary and cultural theory as well as methods of critical analysis applied to literary texts and other forms of cultural expression.
365. Cultural Studies: Histories, Theories, and Issues (3)

Prerequisite: one course in literature or instructor's consent.
History and issues of Cultural Studies, including theories of discursive practice and identity politics. Similarities and differences between Culture Studies and Cultural Criticism. Examination of traditional cultural discourses as found in literature and arts and also in cultural institutions, practices and products, in a global, comparative context.
402./502. Studies in Middle Eastern Literature and Culture (3)
Prerequisite: One course in literature or consent of instructor. Study of specific authors, themes, genres, movements, or aspects of literature and culture in the Middle East or between the Middle East and the West.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 403./503. Studies in Asian Literature (3)

Prerequisite: One course in literature or consent of instructor. Interrelationships of two or more authors, themes, genres, movements or aspects of literature and culture in Asia or between Asia and the West.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 404./504. Women in World Literature (3)

Prerequisite: One course in literature or consent of instructor. Study of the role of women in world literature.
Specific movement, area, or theme will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.
405./505. The Modern Confessional Novel (3)

Prerequisite: One course in literature or consent of instructor.
Comparative analysis of the thematic and structural characteristics of the confessional novel in the 19th and 20th centuries.
Representative novels from Europe, Asia and Latin America are examined.

## 406./506. Studies in East European Literature and Culture (3)

Prerequisite: One course in literature or consent of instructor.
Major movements, authors, and/or themes in Eastern European literature and culture (Slavic and non-Slavic) and/or relationship of East European literature and culture and Western Europe and North America.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 410. Literature and Music (3)

Prerequisite: One course in literature or consent of instructor. Examination of relationship between music and literature in $19^{\text {th }}$ and $20^{\text {th }}$ centuries with emphasis placed on representative literary works and musical compositions that show mutual influences and common features and structures.

## 412I. Art and Literature (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary study of 19th and 20th Century art and literature, emphasizing comparative analysis of styles, methods, principles, and movements across genres as well as major artists, writers and theorists in their social and historical contexts.

## 414I. Medieval World (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of major themes in medieval society and culture, with an emphasis on literature, the arts, and the historical forces that combined to produce medieval culture as a whole.
Same course as HIST 414I.

## 415I. Ethnic Literature and Culture in America (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing.
Comparative, interdisciplinary study of multicultural literature in historical and sociopolitical context. Ethnic groups include Native American, African American, Latino/Latina, Asian American and Middle Eastern American.

## 420. Studies in the Comic Spirit (3)

Prerequisite: CWL 320I or consent of instructor.
Study of specific themes, theories, genres and/or interdisciplinary relationships in comedy.
Topics to be announced in the Schedule of Classes. May be repeated for a maximum of 6 units with different topics.

## 422I. Renaissance Theatre and Drama (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary study of the achievements, problems, themes and trends of Renaissance drama in Italy, Spain, France, and England between 1350 and 1650. Major plays of the period are read in translation, with attention to literary and theatrical elements

## 430./530. Dante (3)

Prerequisite: One course in literature or consent of instructor. A reading, in translation, of the major works of Dante, including the Vita Nuova and the Divine Comedy. Examination is also given to the comparative nature of Dante's work: his sources and his influence on later writers, artists, and composers.

## 431./531. Medieval Literature (3)

Prerequisite: One course in literature or consent of instructor. Representative selections, in translation, from writings of the medieval period, reflecting dominant ideas of the time.

## 432./532. Continental Renaissance Literature (3)

Prerequisite: One course in literature or consent of instructor.
Comparative study of the major non-dramatic works of
Renaissance Europe, including authors such as Petrarch, Boccaccio, Lorenzo de' Medici, Machiavelli, Ariosto, Tasso, Ronsard, Rabelais, Erasmus, and Cervantes. Emphasis is also given to influences, trends, and contributions to the modern world.

## 435./535. Literature of the Enlightenment (3)

Prerequisite: One course in literature or consent of instructor. A comparative study of European literature, from approximately 1650 to 1800 , with an emphasis on reading literary works within historical context and considering the imaginative and intellectual achievements and legacies of the Enlightenment.

## 437./537. Romantic Literature (3)

Prerequisite: One course in literature or consent of instructor.
Representative selections in translation, from European writers of the Romantic period with an emphasis on a comparative study of works from Germany and France from about 1770-1850.
438./538. 20th Century European Literature (3)

Prerequisite: One course in literature or consent of instructor. Comparative study of continental European literature from 1900 to present. Focus on novels and drama. Topics include realism, naturalism, psychological novel, theatre of the absurd, existentialism, modernism, postmodernism, and postcolonialism.

## 440./540. Latin American Literary Studies (3)

Prerequisite: One course in literature or consent of instructor.
Comparative study of major literary genres in Latin American literature in relation to principal periods and movements of Western literary tradition.
Genres for the semester will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 445./545. American Folklore Studies (3)

Prerequisite: One course in literature or consent of instructor.
Special topics in American folklore. Topics are chosen to provide a bridge between literary, aesthetic and specialized folkloristic studies of American culture. Special attention will be paid to European and Third World contributions to American folklore.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 448./548. Comparative Studies (3)

Prerequisite: One course in literature or consent of instructor. Interrelationship of two or more disciplines, with emphasis on reciprocal influences and borrowing of materials during various literary periods. The class will feature a different interdisciplinary study each semester.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 449./549. Critical Studies in Major Continental Writers

 (3)Prerequisite: One course in literature or consent of instructor. Intensive and comparative study of one to three major continental authors.
Authors to be studied will be announced in Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 451I. The Novel and the Motion Picture in Contemporary Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary study of two genres, with particular focus on novels made into films and on aesthetic distinction of both forms as major genres in 20th and 21st centuries.

## 452./552. Studies in Mythology (3)

Prerequisites: One course in literature or consent of instructor.
Interrelation of two or more mythologies, mythological themes or theories of mythology. Different areas of study of mythology each semester.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.
453./553. Fairy Tales (3)

Prerequisite: One course in literature or consent of instructor.
Study of fairy tale as a unique literary genre and art form. Class will apply contemporary theory to tales and identify psychological, religious, cultural, and alchemical patterns and symbols that manifest the realization of identity and illustrate creative processes.
461./561. Topics in Contemporary Literary Criticism (3)

Prerequisite: Two upper division literature courses or consent of instructor.
In-depth study of a particular critic or movement in contemporary literary theory.
May be repeated to a maximum of 9 units with different topics.

## 492. Internship Program (1-3)

Prerequisites: Consent of instructor and department chair.
Field work in literature related industries. Internships and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. Credit/No Credit grading only.
495. Genre (1-3)

Prerequisite: Consent of instructor.
Production of student journal, Genre, including editing, design, soliciting contributors, working with printer, desktop publishing, and financial management. Organizational meeting previous fall semester. Contact department office for information.
May be repeated to a maximum of 9 units. Credit/No Credit grading only.

## 499. Directed Studies (1-4)

Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units with consent of department.

## GRADUATE LEVEL

## 501. Advanced Interdisciplinary Study (3)

Intensive study of the theories and methods of comparing and interrelating literature with other disciplines such as various areas among the fine arts, the social sciences and the sciences. Course will involve independent research.
Letter grade only (A-F).

## 502./402. Studies in Middle Eastern Literature and

 Culture (3)Prerequisite: One course in literature or consent of instructor.
Study of specific authors, themes, genres, movements, or aspects of literature and culture in the Middle East or between the Middle East and the West.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 503./403. Studies in Asian Literature (3)

Prerequisite: One course in literature or consent of instructor. Interrelationships of two or more authors, themes, genres, movements or aspects of literature and culture in Asia or between Asia and the West.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 504./404. Women in World Literature (3)

Prerequisite: One course in literature or consent of instructor. Study of the role of women in world literature.
Specific movement, area, or theme will be announced in Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## 505./405. The Modern Confessional Novel (3)

Prerequisite: One course in literature or consent of instructor. Comparative analysis of thematic and structural characteristics of confessional novel in 19th and 20th centuries. Representative novels from Europe, Asia and Latin America are examined. Letter grade only (A-F).
506./406. Studies in East European Literature and Culture (3)
Prerequisite: One course in literature or consent of the instructor.
Major movements, authors, and/or themes in Eastern European literature and culture (Slavic and non-Slavic) and/or relationship of East European literature and culture and Western Europe and North America.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).
530./430. Dante (3)

Prerequisite: One course in literature or consent of instructor.
A reading, in translation, of the major works of Dante, including Vita Nuova and the Divine Comedy. Examination given to comparative nature of Dante's work: his sources and his influence on later writers, artists, and composers.
Letter grade only (A-F).

## 531./431. Medieval Literature (3)

Prerequisite: One course in literature or consent of instructor. Representative selections, in translation, from writings of the medieval period, reflecting dominant ideas of the time.
Letter grade only (A-F).

## 532./432. Continental Renaissance Literature (3)

Prerequisite: One course in literature or consent of instructor.
Comparative study of major works of chief non-dramatic authors of Renaissance Europe, including all or some of the following: Petrarch, Boccaccio, Lorenzo de'Medici, Machiavelli, Ariosto, Tasso, Ronsard, Rabelais, Erasmus, and Cervantes. Emphasis is also given to influences, trends, and contributions to the modern world.
Letter grade only (A-F).

## 535./435. Literature of the Enlightenment (3)

Prerequisite: One course in literature or consent of instructor.
Comparative study of European literature, from approximately 1650 to 1800, with an emphasis on reading literary works within historical context and considering the imaginative and intellectual achievements and legacies of the Enlightenment.

## 537./437. Romantic Literature (3)

Prerequisite: One course in literature or consent of instructor. Representative selections in translation from European writers of Romantic period with emphasis on a comparative study of works from Germany and France from about 1770-1850.
$538 . / 438.20^{\text {th }}$ Century European Literature (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of continental European literature from 1900 to present. Focus on novels and drama. Topics include realism, naturalism, psychological novel, theatre of the absurd, existentialism, modernism, postmodernism, and postcolonialism. Letter grade only (A-F).

## 540./440. Latin American Literary Studies (3)

Prerequisite: One course in literature or consent of instructor.
Comparative study of major literary genres in Latin American literature in relation to the principal periods and movements of the Western literary tradition.
Genres for the semester will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 545./445. American Folklore Studies (3)

Prerequisite: One course in literature or consent of instructor. Special topics in American folklore. Topics are chosen to provide a bridge between literary, aesthetic and specialized folkloristic studies of American culture. Special attention will be paid to European and Third World contributions to American folklore. Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 548./448. Comparative Studies (3)

Prerequisite: One course in literature or consent of instructor. Interrelationship of two or more disciplines, with emphasis on reciprocal influences and borrowing of materials during various literary periods. The class will feature a different interdisciplinary study each semester.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 549./449. Critical Studies in Major Continental Writers

 (3)Prerequisite: One course in literature or consent of instructor. Intensive and comparative study of one to three major continental authors.
Authors to be studied will be announced in the Schedule of Classes. May be repeated to maximum of 9 units with different topics. Letter grade only (A-F).

## 550. Topics in Comparative World Literature (3)

Prerequisite: CWL 501 or consent of instructor.
Special studies of movements, figures and relationships in world literature; or between world literature and other disciplines.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 552./452. Studies in Mythology (3)

Prerequisites: One course in literature or consent of instructor. Interrelation of two or more mythologies, mythological themes or theories of mythology. This class will feature a different area of an interdisciplinary or comparative nature in the study of mythology each semester.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 553./453. Fairy Tales (3)

Prerequisite: One course in literature or consent of instructor. Study of fairy tale as a unique literary genre and art form. Class will apply contemporary theory to tales and identify psychological, religious, cultural, and alchemical patterns and symbols that manifest the realization of identity and illustrate creative processes. Letter grade only (A-F).
561./461. Topics in Contemporary Literary Criticism (3)

Prerequisite: Two upper division literature courses or consent of instructor.
In-depth study of a particular critic or movement in contemporary literary theory.
May be repeated to a maximum of 9 units with different topics.

# COMPUTER ENGINEERING AND COMPUTER SCIENCE 

College of Engineering

Department Chair<br>Wayne Dick<br>Department Office<br>Engineering and Computer Sciences (ECS) - 552<br>Telephone<br>(562) 985-4285<br>\section*{Website}<br>http://www.cecs.csulb.edu/<br>Faculty<br>Professors<br>Joel Carissimo (Emeritus), Michael Chelian, Sandra Cynar, Wayne Dick, Edward Evans (Emeritus), Sheila Foster (Emeritus), Arthur Gittleman, Michael Hassul (Emeritus), Shui Lam, Dar-Biau Liu, Michael K. Mahoney, Carl Maltz (Emeritus), Tracy Bradley Maples, Thinh Nguyen, Morton Schwartz (Emeritus), Dennis Volper, Robert Wilson (Emeritus)<br>\section*{Associate Professors}<br>Todd Ebert, Burkhard Englert, Darin Goldstein, Min He Michael Hoffman, Tom Johnson, Alvaro Monge, Frank Murgolo, Colleen van Lent<br>Undergraduate Advisors<br>Tom Johnson<br>Graduate Advisor<br>Alvaro Monge<br>General Education Advising<br>See Academic Advising Center AS-124

Administrative Support Coordinator
Robin Ikemi
Students desiring detailed information should contact the department for referral to one of the faculty advisors.

## Accreditation

The Bachelor of Science in Computer Engineering is accredited by the Engineering Accreditation Commission (EAC) and the Bachelor of Science in Computer Science by the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 - telephone: 410/ 347-7700; website: http://www.abet.org.

## Advisory Board

The Department of Computer Engineering and Computer Science is supported by an Advisory Board composed of engineers, computer scientists, and business executives in the Southern California area. This liaison helps the department keep its curricula responsive to the needs of the community.

## Undergraduate Educational Objectives

All courses and programs in the Department of Computer Engineering and Computer Science are designed to meet the following objectives: Students will receive a comprehensive education in Computer Engineering and/or Computer Science, as well as the sciences and humanities, that will serve them in both their professional and personal lives. Students will be able to analyze and solve problems in Computer Engineering and/or Computer Science using modern techniques, skills, and tools. Students will be able to communicate effectively. Students will be able to design systems, components or processes that meet performance, cost, time, safety, and quality requirements. Students will understand their professional responsibilities, including remaining current in their field of study, and will be able to analyze the social and ethical implications of their work.

## Undergraduate Degree Programs

The Department of Computer Engineering and Computer Science offers programs leading to a Bachelor of Science in Computer Engineering, or a Bachelor of Science in Computer Science, The goal of both programs is to prepare graduates for a wide variety of computer-related careers by integrating the theoretical foundations of the discipline with practical applications. The degree in Computer Engineering focuses on computer hardware (design, construction, and operation of computer systems) while the Computer Science degree places more emphasis on computer software (algorithms). The high school student planning to enter either program is advised to pursue a strong program in science and mathematics.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Computer Engineering (code CECSBS02) (129 units)

The Bachelor of Science in Computer Engineering degree program has a two-part objective. The first is to provide students with a strong background in mathematics, physics, and engineering science. The curriculum includes courses in digital systems, embedded systems, integrated circuits design, including operating systems and software engineering. The second objective is to provide students with the skills necessary to be effective contributors in a quality-oriented, customer-focused environment. Courses throughout the program, especially those in the junior and senior years, emphasize an open-ended, design-oriented approach to solving engineering problems. Teamwork, communication skills, and an interdisciplinary approach to problem solving are integrated into the senior, computer engineering design courses.

## Requirements

Lower Division: CECS 174, 201, 228, 261, 274, 277; MATH 122, 222; PHYS 151, 152 (or EE 210 and 210L).

Upper Division: CECS 301, 311, 326, 340, 346, 347, 360, 440, 443, 447, 460A, 460B; EE 380 (or MATH 380), 386; MATH 323, 370A; plus nine units of approved electives to be selected from CECS 406, 451, 474, 475, 497, EE 486, ENGR 310 (or ENGL 317).

## Bachelor of Science in Computer Science (code CECSBS01) (129 units)

The Bachelor of Science in Computer Science degree is designed to prepare graduates for a variety of professional careers in the computer field. The curriculum is designed to provide students with both breadth and depth in computer science. Breadth is achieved through a series of core courses that stress a balance between the theoretical and practical aspects of computer science. The topics covered in these courses include the following: the basics of programming languages, software design and analysis, data structures, algorithms, digital systems, computer organization, computer architecture, and operating systems. Extensive laboratory time is required for these courses, and design and analysis experiences are emphasized. Depth is achieved through courses (both required and elective) on advanced computer science topics. These courses provide students with in-depth knowledge of the material covered in the breadth portion of the curriculum.

## Requirements

Lower Division: CECS 174, 201, 228, 261 or 381, 274, 277; MATH 122, 222, 247; PHYS 151, 152 (or EE 210 and 210L); four units of approved courses in science or with strong emphasis in quantitative methods.

Upper Division: CECS 323, 325, 326, 327, 328, 340, 424, 440, 443; ENGR 350; MATH 380 (or EE 380); ENGR 310 or ENGL 317; plus twelve units of approved electives to be selected as follows: three (3) units from CECS 471, 475, 481; and nine (9) units from MATH 323, CECS 405, 406, $419,423,426,428,444,448,449,451,455,470,472,473$, 474, 476, 478, 497.

## Bachelor of Science in Engineering Technology

## Technology and Engineering Education Option (code ET__BS15)

For requirements, see the description in the Engineering Technology Programs section of this catalog.

## Minor in Computer Science (code CECSUM01)

The minor in Computer Science is designed to prepare students in other majors for careers in a wide variety of fields which require computer science expertise.

## Requirements

A minimum of 24 units. CECS 174, 201, 228, 274, 277, 325 and two courses to be selected from CECS 323, 326, 328, 340, 423, 443, 449, 470, 474, 475, ENGR 350.

## Minor in Web and Technology Literacy (code CECSUM03)

Open to all majors except those seeking a B.S. Engineering Technology option in Technology and Engineering Education.

The minor in Web and Technology Literacy is designed to give students from many majors some valuable internet and web authoring skills and a broad understanding of technology. Digital devices and computers are ubiquitous in our lives, yet most people do not know how they were designed, how they work and how to use them. All CSULB baccalaureate degrees prepare students for the reading, writing, mathematical operations, speaking and critical thinking. This minor will provide the technical skills not included in non-technical degrees, but required for success in a highly technical world.

This minor will prepare students to work with a variety of technologies including computers and related technologies and the proper setup and operation of equipment along with valuable troubleshooting skills required of today's work force. Students will gain an understanding of the system design process and how our digital world works. Students will learn to acquire and evaluate information from the internet and to communicate information via the internet including ethical issues encountered when using the internet. In addition, students will learn to create a robust, useable, and accessible Web site. This minor will provide valuable technical skills for a variety of fields including graphic arts, teaching, journalism, law, business and public administration, social work and many others. The minor is conferred concurrently with the BS/BA degree.

## Requirements

Completion of 21 units as specified below:

1. Completion of 18 core units: CECS 110, 200, 202 300, 401, and 410.
2. Completion of 3 units from the following list of electives: CECS 400, ENGR 350, or 391.

## Minor in Computer Science Applications (code CECSUM02)

The minor in Computer Science Applications is designed to prepare students to be able to write small programs in three languages and to maintain and upgrade PC software and hardware as well as understand how to set up a local area network. In addition it prepares students to be able to design and implement web applications using modern and readily available authoring tools. This minor will provide valuable skills for a variety of fields including teaching, law, business and public administration, engineering and many others. The Minor in Computer Science Applications is not open to students majoring in Computer Science or Computer Engineering

## Requirements

A minimum of 21 units from the following: CECS 110, 174, 200, 261, 300, 381, 401, 410

## Certificate in Web and Technology Literacy (code CECSCT01)

Open to all majors except those with or seeking a B.S. Engineering Technology option in Technology and Engineering Education.

The certificate in Web and Technology Literacy is designed to give students from many majors some valuable internet and web authoring skills and a broad understanding of technology. Digital devices and computers are ubiquitous in our lives, yet most people do not know how they were designed, how they work and how to use them.

This certificate will prepare students to work with a variety of technologies including computers and related technologies and the proper setup and operation of equipment along with valuable troubleshooting skills required of today's labor force. Students will gain an understanding of the system design process and how our digital world works. Students will learn to acquire and evaluate information from the internet and to communicate information via the internet including ethical issues encountered when using the internet. In addition, students will learn to create a robust, useable, and accessible Web site. This certificate will provide valuable technical skills for a variety of fields including graphic arts, teaching, journalism, law, business and public administration, social work and many others. The certificate is conferred as a post-baccalaureate certificate or concurrently with the BS/BA degree.

## Requirements

1. Consultation with a program advisor and preparation of a program planner.
2. Completion of 24 units as specified below:
A. Completion of 18 core units: CECS 110, 200, 202, 300, 410, and ENGR 304.
B. Completion of 6 units from the following list of electives: CECS 400, 401, ENGR 350, or 391.

## GRADUATE PROGRAMS

## Master of Science in Computer Science

The Master of Science in Computer Science is offered by the Department of Computer Engineering and Computer Science, College of Engineering. Two options are offered:

1. Option in Computer Engineering
2. Option in Computer Science

The Option in Computer Engineering offers advanced study in the theory, analysis, design and applications of both computer hardware and software. The Option in Computer Science offers advanced study in modeling software systems, operating systems, compiler construction, and analysis of algorithms.

## Admission Procedures

To be considered for admission the graduate applicant must have earned a bachelor's degree from an accredited institution, have been in good standing at the last institution attended, and have a grade point average (GPA) of at least 2.7 for the last 60 semester units ( 90 quarter units) attempted. The general Graduate Record Examination (GRE) is required. There is no separate department application, but applicants should submit a second set of transcripts to the department.

## Option in Computer Engineering (code CECSMS02)

## Prerequisites

1. A bachelor's degree in computer science, engineering, or other appropriate discipline from an accredited college or university, with a minimum grade point average (GPA) of 2.7 in the last 60 semester units attempted.
2. Credit in the following courses or their equivalents: CECS 274, 301, 326, 340, 346, 347, 360, 440, 443, and MATH 370A.
3. Students must consult with the program graduate advisor prior to enrolling in any course for the program.

## Requirements

Students must complete a minimum of 30 graduate and approved upper-division course units including the following:

1. At least 21 units at the graduate level of instruction;
2. CECS 460A, 460B, 530, and either 531 or 546;
3. One course from the Computer Engineering Fundamental Areas;
4. One additional course from the MSCS Application Courses;
5. All students must complete either:
A. a comprehensive examination, or
B. a thesis with oral defense which requires a total of 6 units of CECS 697 or 698, of which at least 4 units must be CECS 698.

## Option in Computer Science (code CECSMS01)

## Prerequisites

1. A bachelor's degree in computer science, engineering, or other appropriate discipline from an accredited college or university, with a minimum grade point average (GPA) of 2.7 in the last 60 semester units attempted.
2. Credit in the following courses or their equivalents: One year of instruction in an object-oriented programming language, CECS 228,323 (or 421), 325, 326, 328, 440, 443, MATH 380, and either 419, 424, or 444.
3. Students must consult with the program graduate advisor prior to enrolling in any course for the program.

## Requirements

Students must complete a minimum of 30 graduate and approved upper-division course units including the following:

1. At least 21 units at the graduate level of instruction;
2. CECS 528;
3. One course from the Computer Science Fundamental Areas;
4. Two courses from the MSCS Application courses;
5. All students must complete either:
A. a comprehensive examination, or
B. a thesis with oral defense which requires a total of 6 units of CECS 697 or 698, of which at least 4 units must be CECS 698.

## Advancement to Candidacy

Students applying for advancement to candidacy must:

1. have completed all undergraduate deficiencies with grades of "C" or better;
2. have attained an overall grade point average (GPA) of 3.0;
3. have completed at least 12 units applicable to the degree with a GPA of at least 3.0;
4. have fulfilled the Graduation Writing Assessment Requirement (GWAR);
5. and have their program of studies approved by the CECS department graduate advisor.

## Courses (CECS)

## LOWER DIVISION

100. Critical Thinking in the Digital Information Age (3) Prerequisite/Corequisite: ENGL 100 or its equivalent. Develop critical thinking skills with technical tools. Main topics include: identifying topics for investigation, developing planning strategies locating pertinent information, critically analyzing sources of information, testing hypotheses, synthesizing and organizing results for effective communication.
( 2 hours lecture, 3 hours lab) Letter grade only (A-F).

## 110. Internet and Multimedia Applications (3)

Overview of computer systems, networking, Internet, HTML, JavaScript, social implications of technology including privacy and security issues. Introduce computer applications and multimedia software such as video editing, creating graphics using interactivity and animation, and Web searching. Develop problem solving skills. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).
126. Introduction to the UNIX Operating System (3)

Prerequisite: Consent of instructor.
UNIX operating system's user interface. File and directory commands, editor commands, communication commands and other UNIX utilities. UNIX access permissions and security, I/O redirection, pipes, metacharacters, and full-screen editing with vi. Electronic communication, simple shell programming, and the Xwindow System.
(Lecture 2 hours, laboratory 3 hours.)

## 174. Programming and Problem Solving I (3)

Prerequisite: MATH 117 (or equivalent.)
Introduction to basic concepts of computer science and fundamental techniques for solving problems using the C++ programming language. Structured problem solving, objectoriented programming, programming style. Applications to numerical and non-numerical problems. Not open for credit to students with credit in CECS 175.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 200. Introduction to Web Design (3)

Prerequisite: CECS 110.
Introductory web page design using modern tools. Development of web pages from layout to posting on the Internet. Web security and ethics.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
201. Computer Logic Design I (3)

Prerequisite: MATH 117 (or equivalent).
Basic topics in combinational and sequential switching circuits with applications to the design of digital devices. Laboratory projects with Small Scale Integration (SSI) implementations using Computer Aided Design (CAD).
(Lecture 2 hours, lab 3 hours.) Letter grade only (A-F).

## 202. The Digital Information Age (3)

Prerequisite: Completion of GE foundation requirements.
Use of mathematics in design of common-place digital information systems. Introduction to how information is digitized, secured, compressed and transmitted. Students learn how digital age impacts them and the world they live in.
( 3 hours lecture). Letter grade only (A-F).

## 228. Discrete Structures with Computer Science

 Applications I (3)Prerequisites: CECS 174 and one of the following: MATH 115, 119A, 122, PSY 310.
Specification, development and analysis of algorithms. Sets, relations and functions. Logic and mathematical structures used in computer science. Introduction to combinatorics. Programming projects to exemplify these concepts.
(Lecture 2 hours, laboratory/problem session 3 hours.) Letter grade only (A-F).

## 261. Computing with Java (3)

Prerequisite: CECS 174.
Comparison of basic Java constructs to similar constructs in C++. Object-oriented programming in Java. Applets and graphical user interfaces. Mouse, key, window events. Exception handling and files. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 271. Introduction to Numerical Methods (3)

Prerequisites: CECS 174 and MATH 123.
Introduction to numerical methods and FORTRAN programming language. Analysis of computational errors; iterative methods for finding roots and for solving systems of equations. Numerical techniques for evaluating integrals, determining derivatives, and solving ordinary differential equations. FORTRAN projects assigned.
Not open for credit to students with credit in CECS 342. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 274. Programming and Problem Solving II (3)

Prerequisite: CECS 174; Prerequisite/Corequisite: CECS 201.
Disciplined methods of design, coding and testing using the C++ programming language. Data abstraction, object-oriented design. Introduction to data structures (linked lists, stacks, queues and trees.) Recursion. Sorting and searching.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 277. Programming and Problem Solving III (3)

Prerequisite: CECS 274.
Advanced introduction to the fundamentals of computer science and software engineering methodology. Advanced programming techniques and design methodology typically used in large programming projects using the C++ programming language.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## UPPER DIVISION

## 300. Web Authoring (3)

Prerequisite: CECS 200.
Web page design using modern tools. Design and development of web pages from layout to posting on the Internet. Website usability, accessibility, security, and ethics.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 301. Computer Logic Design II (3)

Prerequisite: CECS 174. Prerequisite/Corequisite: CECS 311 or EE 331.

Sequential logic, programmable logic design, basic Arithmetic Logic Unit (ALU) design and memory devices. Laboratory projects with Medium Scale to Very Large Scale Integration (MSI to VLSI) implementations and Computer Aided Design (CAD).
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
310. Computer-Based Learning Resources (3)

Prerequisite: Some Internet experience.
Explore and learn to use the many existing web-based education tools that focus on teaching technology. Evaluation of resources for age appropriateness and gender preferences. Students will develop a web-based tool to teach a technical subject of their choice. Field work required.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
311. Data Acquisition, Processing, and Display (3)

Prerequisites: CECS 201, EE 210 and 210L or PHYS 152.
Hardware and software used to acquire, process, and display realtime signals. Transducers. Amplifiers. Buffers and isolators. Interrupt generators. Analog-to-digital and digital-analog converters. Display hardware. Software packages for electronics simulation and data acquisition. Sources of noise in digital systems.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 323. Database Fundamentals (3)

Prerequisites: CECS 228, 274, MATH 222.
Fundamental topics on database management. Topics include entity-relationship models, database design, data definition language, the relational model, data manipulation language, database application programming and normalization.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 325. Computer Organization and Assembly Language

 Programming (3)Prerequisites: CECS 201 and 274.
Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming, macros and macro processing. Introduction to software systems, including assemblers, linkage editors and loaders. Programming assignments in assembly language.
(Lecture 2 hours, lab 3 hours.) Letter grade only (A-F).

## 326. Operating Systems (3)

Prerequisites: CECS 277 and 325 (or 346).
The structure and functions of operating systems. Interrupt handling, processes and interprocess communication, memory management, resource scheduling, information sharing and protection. Project implementation in C/C++.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 327. Net-centric Computing (3)

Prerequisite: CECS 326.
Introduction to Distributed Computing and Interprocess
Communication. Client Server Paradigm. Sockets and the Socket API. Unicasting and Multicasting. Distributed Objects. CORBA Internet Applications.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 328. Discrete Structures with Computer Science Applications II (3)

Prerequisite: CECS 228. Corequisite: CECS 277.
A broad view of data structures and the structure-preserving operations on them. Abstract data types, algorithms, complexity. Programming projects to exemplify these concepts.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
340. Discrete Event Systems Modeling and Simulation (3)

Prerequisites: CECS 201, 228 and 274.
Modeling and simulation of discrete event systems specific to computer science and computer engineering including networks, queuing systems, digital logic, and computer architecture. Use of general purpose and specialized languages for these systems will be explored. Methods for system input data (stochastic and deterministic) explored.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 346. Microprocessors and Controllers I (3)

Prerequisites: CECS 274 and 311.
Intro microprocessor/controller, embedded programming and design. Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming. Introduction to assemblers, linkage editors and loaders. Study of the 8051. Design of microprocessor-based systems.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 347. Microprocessors and Controllers II (3)

Prerequisites: CECS 301 and 346.
Study of embedded processor applications and interfacing. Embedded systems design, control of external devices, embedded programming in C and assembly. A/D and D/A converters, digital signal processing, motor and LCD controllers. Laboratory implementation of embedded designs and hardware-assisted debugging.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 360. Integrated Circuit Design Software (3)

Prerequisites: CECS 301, 325 (or 346), MATH 123 or 222.
Introduction to Computer Aided Design tools used in the design and fabrication of integrated circuits. Discussion of the IC fabrication process, the layout and routing of basic gates, transistor level design of gates, synthesis and RTL level design, floor planning, and IC development costs.
(Lecture 2 hours, lab 3 hours.) Letter grade only (A-F).

## 381. GUI Programming (3)

Prerequisite: CECS 174.
Introduction to programming in a graphical user interface (GUI) environment. Menus, dialog boxes, forms, textboxes, toolbars and other controls. Properties, methods and events of objects. Program control statements including if, case, while, loop, and do. System objects including the mouse, screen and printer.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 400. Engineering for Teachers (3)

Prerequisite: MATH 119A or three years of high school mathematics including algebra, geometry, and intermediate algebra.
Learn how engineers solve problems for humanity. Explore the various engineering disciplines and learn how they relate to mathematics and science. Discover how things work. Build engineering projects.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*401. Programming Robots - for Teachers and Parents (3)

Prerequisite: Some programming experience.
Learn how to inspire interest in engineering and computer science among children ages 9 through 16. Using robotic kits, gain handson experience in problem solving and computer programming while constructing and programming unique robot inventions.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *401. Programming Robots - For Educators (3)

Prerequisite: Some programming experience.
Learn how to inspire interest in engineering and computer science among children ages 9 through 16. Using robotic kits, gain handson experience in problem solving and computer programming while constructing and programming unique robot inventions.
May not be used to satisfy any MSCS requirements. (Lecture 2 hours, laboratory 3 hours). Letter grade only (A-F).

## *405. Special Topics in Computer Science (3)

Prerequisite: Senior standing in computer science major.
Selected topics from recent advances in computer science and technology. Course content will vary from year to year.
(Lecture-problems 3 hours.) May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## *406. Special Topics in Computer Science (3)

Prerequisite: Senior standing in the computer science major.
Each offering is based upon an area of computer science and technology in which recent advances have been made.
Repeatable to a maximum of 6 units with different topics in different semesters. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *410. Computers and Networks (3)

Prerequisite: Course design assumes familiarity with computers.
Gain practical, hands-on experience in installing hardware and software on a PC. Learn what a computer network is and how it is similar to the telephone network. Learn the parts that make up a computer and a network.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*419. Theory of Computation (3)
Prerequisite: CECS 328.
Finite automata and regular expressions. Pushdown automata and context-free languages. Turing machines and computability. Computational complexity.
(Lecture-problems 3 hours.) Letter grade only (A-F).
*423. Database Applications (3)
Prerequisite: CECS 323 (or 421).
Prep for work on commercial database systems. Advanced modeling/ analysis, data definition, constraints, retrieval, manipulation, security, usability. Commercial tools, distributed/multi-tier environments and integration of databases with intra \& internets. Projects may include cooperation with students from other departments.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*424. Organization of Programming Languages (3)
Prerequisites: CECS 326 and 328.
Understanding the variety of programming languages and the design trade-offs between current programming language paradigms. Comparison of programming languages in their design, implementation, and run-time supports. Includes programming projects.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *426. Topics in Operating Systems (3)

Prerequisite: CECS 326.
Advanced operating system analysis and design. Topics of current interest. Project implementation
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*428. Analysis of Algorithms (3)
Prerequisite: CECS 328.
Applications of standard combinatorial techniques to applied programming problems. Rigorous analysis of correctness/complexity of algorithms. Advanced graph algorithms are emphasized. Topics include shortest paths on graphs, sorting, string matching, union find problem, divide-and-conquer technique, and weighted-edge problem.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*429. Information Retrieval (3)
Prerequisite: CECS 323.
Models, algorithms, and evaluation of the retrieval of information from a collection of documents. Document preprocessing. Indexing and Searching. Retrieval evaluation. Search engines.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
440. Computer Architecture (3)

Prerequisites: CECS 340 and 325 (or 346).
Review of logic design. Register transfer and micro-operations.
Basic computer organization. Central processor organization.
Microprogram control organization. Arithmetic processor design. Arithmetic algorithms. Input-output organization. Memory organization.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 443. Software Engineering (3)

Prerequisite: CECS 326.
Software life cycle. Functional decomposition, data flow and objectoriented development. Reusability and portability.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*444. Compiler Construction (3)
Prerequisites: CECS 325 and 328.
Syntax directed compiler study. Organization of a compiler and overall design: parsing, semantic analysis, optimization and code generation.
(Lecture 3 hours, laboratory 3 hours.) Letter grade only (A-F).

## *447. Microprocessors and Controllers III (3)

Prerequisite: CECS 347.
Embedded system applications and techniques. Real-time multitasking systems, schedulers, kernels, and operating systems for embedded processors. Advanced I/O technologies - CAM, I2C, Ethernet. Embedded Internet applications. Polling vs. interrupt handling. Lab implementation of embedded designs and hardwareassisted debugging.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*448. User Interface Design (3)
Prerequisites: CECS 323 (or 421), and any one of CECS 471, 475, 481.

Evaluation, design and programming of user interface systems. Fundamentals of human cognition, system characteristics, and the interaction between humans and systems. Usability methods and user/task-centered design. Tools for designing and building user interfaces, with emphasis on rapid applications development.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*449. Computer Graphics (3)
Prerequisites: MATH 247, CECS 261 and 274.
Basic software and hardware of 2-D computer graphics. Applications.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*451. Artificial Intelligence (3)
Prerequisites: CECS 228, 274, MATH 380 or EE 380.
Introduction to the history and implementation of artificial intelligence agents. Topics include search, constraint satisfaction, game-playing, logical agents, belief networks, optimal sequential decision systems. Project implementation.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*455. Introduction to Game Programming (3)
Prerequisite: CECS 328 or consent of instructor.
Introduction to game programming and graphics. "Slow" games.
Real-time games with no adversary. Adversarial real-time games in 2-D.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
460A. System on Chip Design I (3)
Prerequisite: CECS 360.
A complete System on a Chip (SOC) design flow beginning with a design specification and ending with a working SOC.
Creation of RTL level modules designed for reuse, integration of Intellectual Property (IP) for both RTL level and physical level IP, IC verification, and the creation of self-checking test benches for SOC designs.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*460B. System on Chip Design II (3)
Prerequisite: CECS 460A.
System on a Chip (SOC) design applications. Variety of SOC designs built as class project involving both hardware \& software aspect of a SOC with hardware/software integration problems. Design reviews, design specification, team design implementation stressed with project planning \& tracking mechanisms for system level design problems.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *461. Hardware/Software Co-design (3)

Prerequisites: CECS 460A, 274.
Introduction to top-down methods for hardware/software system-on-chip co-design. Design flow - system specification, software implementation, hardware synthesis, system design, \& verification. Process optimization with various design decisions emphasized. Projects/case studies using system-level design methods and tools. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*470. World-Wide Web Development (3)
Prerequisites: CECS 277 and 323 (or 421).
Intro commercial practice in World-Wide Web site development. Server/client software \& underlying networking technologies \& protocols. Page/site design, programming with contemporary tools/ languages. Typography, graphics, database integration, usability, ethics and future directions. Site development for actual client. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *471. Internet Applications Using Java (3)

Prerequisites: CECS 261 and 277.
Threads, images, and animation. User interface component libraries. Streams, readers and writers. Client-server applications. Java beans. Internationalization. Introduction to remote method invocation, Java database connectivity, and multimedia applications. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*472. Computer Network Programming (3)
Prerequisites: CECS 326 and 328.
Fundamentals of computer network programming. Client-server programming. Concepts of computer network programming including the RPC Procedure Call, CORBA, multicasts, and broadcasts.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*473. Enterprise Web Applications (3)
Prerequisites: CECS 323 (or 421), 470, and any one of CECS 471, 475, 481.
Web commerce, high-availability Web sites, and information architecture. Advanced client side and server side scripting, advanced searching and indexing, application servers. Legal and business aspects. Projects may include cooperation with students from other departments.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*474. Computer Network Interoperability (3)
Prerequisite: CECS 326.
Overview of computer network theory and practice from a systems perspective. Topics include network infrastructure, local area network (LAN) protocols, wide area network (WAN) protocols, switching technologies, Internet Protocol (IP), Transmission Control Protocol (TCP), network security, and network configuration, design, and performance.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*475. Object-Oriented Programming and C++ (3)
Prerequisite: CECS 277.
An overview of object-oriented programming, data abstraction, and the C++ language. Classes, constructors, destructors, function and operator overloading, inheritance, polymorphism, input/output, standard template library (STL), templates, Visual C++, Microsoft Foundation Class (MFC), and object-oriented design.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*476. System and Network Administration (3)
Prerequisites: CECS 326 and 328.
Introduction to the management and administration of Unix systems and TCP/IP networks. Managing users, local and network file systems, electronic mail, print queues. Establishing and managing a network.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## *478. Introduction to Computer Security (3)

Prerequisites: CECS 323, 328, and one course selected from 472, 474, 476.

Controlling the risk of computer security. Security threats and vulnerabilities in the development and use of computer systems. Tools and controls that can reduce or block these threats. Law, privacy and ethics.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
*481. Event Driven Programming (3)
Prerequisites: CECS 261 or CECS 381.
A rigorous introduction to Graphical User Interface (GUI) programming as provided in a number of popular software development products. Topics include Windows API (Application Programming Interface) using C and C++, Visual Basic and other development tools.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
496. Computer Science Problem Solving (1)

Prerequisites: CECS 274 and consent of instructor.
A study of problem solving in Computer Science. Discussion of the theory necessary to solve computer science problems as well as the solutions to the problems. Problems studied will involve applications of graph theory, data structures, recursion, and algorithms. The aim of the course is to enhance the student's problem solving ability.
(Lecture 1 hour.) May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

## *497. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Assigned study in topics in current computer literature or computerrelated projects with a final report.
May be repeated to a maximum of 6 units with written consent of the Department Chair.

## GRADUATE LEVEL

## 521./621. Database Architecture (3)

Prerequisites: CECS 328 and 323 (or 421).
Relational database design theory-a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization.
Master's students register in CECS 521 or 621; Ph.D. students register in CECS 621. Additional projects required for CECS 621. (Lectureproblems 3 hours.) Letter grade only (A-F).

## 524./624. Advanced Topics in Programming Languages (3)

Prerequisite: CECS 424 and 471.
Intensive study of languages of current interest which support objectoriented, client-server, and multimedia applications (e.g. JAVA).
Master's students register in CECS 524 or 624; Ph.D. students register in CECS 624. Additional projects required for CECS 624. (Lectureproblems 3 hours.) Letter grade only (A-F).

## 526./626. Advanced Operating Systems (3)

Prerequisites: CECS 228 and 326.
Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlocks, mutual exclusion, virtual memory, resource management and scheduling.
Master's students register in CECS 526 or 626; Ph.D. students register in CECS 626. Additional projects required for CECS 626. (Lectureproblems 3 hours.) Letter grade only (A-F).

## 528./628. Advanced Analysis of Algorithms (3)

Prerequisite: CECS 328 and MATH 380.
Theoretical analysis of algorithms. Divide and conquer, dynamic programming and greedy algorithms; basic search and traversal techniques including search trees; sorting; matrix manipulations; NP -completeness.
Master's students register in CECS 528 or 628; Ph.D. students register in CECS 628. Additional projects required for CECS 628. (Lectureproblems 3 hours.) Letter grade only (A-F).

## 530./630. Advanced Computer Architecture I (3) <br> Prerequisite: CECS 440.

Fundamentals of computer architecture. Description of architecture and description languages. Basic computer design and central processor implementation. Memory hierarchy and input/output. Pipelining. Vector processor, multiprocessor systems and dataflow machines.
Master's students register in CECS 530 or 630; Ph.D. students register in CECS 630. Additional projects required for CECS 630. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 531./631. Advanced Computer Architecture II (3)

Prerequisite: CECS 530.
Advanced computer architecture with emphasis on parallel processing. Vector processors and multiprocessor systems. Dataflow computation. RISC/CISC. Hypercube. Parallel software. Applications in artificial intelligence, signal/image processing, neural network and optical computing.
Master's students register in CECS 531 or 631; Ph.D. students register in CECS 631. Additional projects required for CECS 631. (Lecture-problems 3 hours.) Letter grade only (A-F).
543./643. Advanced Software Engineering (3)

Prerequisite: CECS 443.
Study of software engineering as a broad, problem-solving discipline. Includes structured programming and software project management.
Master's students register in CECS 543 or 643; Ph.D. students register in CECS 643. Additional projects required for CECS 643. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 544./644. Software Testing and Verification (3)

Prerequisite: CECS 543.
Various types of software testing and verification techniques for software development including black box, white box, incremental, top-down and bottom-up, static and dynamic, performance, regression, thread, and stress testing. Discussion of object-oriented software testing with a hierarchical approach. Metrics in complexity for testing, test, and verification plan will be introduced. Automatic software testing and some case studies.
Additional projects required for CECS 644. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 545./645. Software Architecture (3)

Prerequisite: CECS 543.
Includes architectural styles, pipes and filters, data abstraction and object-oriented organization, event-based, implicit invocation, layered systems, repositories, interpreters, process control, distributed processes, domain-specific software \& heterogeneous architectures. Component-based design patterns \& case studies.
Additional projects required for CECS 645. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 546./646. Fault Tolerant Computing Systems (3)

Prerequisite: CECS 530.
Fault tolerant techniques are studied as tools to assure the reliability and continuous availability of computing systems. Case studies of modern fault tolerant systems reviewed. Software fault tolerant systems studied as alternatives to verification and validation approaches to software reliability.
Master's students register in CECS 546 or 646; Ph.D. students register in CECS 646. Additional projects required for CECS 646. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 549./649. Advanced Computer Graphics (3)

Prerequisite: CECS 449.
Three-dimensional representations, transformations and viewing. Color models and modeling methods. Hidden-line and hidden-surface removal. Lighting and shading. Visual realism. Topics of current interest.
Master's students register in CECS 549 or 649; Ph.D. students register in CECS 649. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 550./650. Pattern Recognition Using Artificial Intelligence (3)

Prerequisite: CECS 451 or consent of instructor. (Master's students register in CECS 550; Ph.D. students register in CECS 650.)

General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rule-based systems and neural networks. Additional projects required for Ph.D. students.
(Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 551./651. Advanced Artificial Intelligence (3) <br> Prerequisite: CECS 451.

Advanced concepts in artificial intelligence. Topics include knowledge acquisition and representation, fuzzy logic, logical reasoning, multi-sensor integration, Dempster-Shafer's theory of evidential reasoning, real-time expert systems and neural networks.
Master's students register in CECS 551 or 651; Ph.D. students register in CECS 651.Additional projects required for CECS 651. (Lecture-problems 3 hours.) Letter grade only (A-F).
552./652. Computer Simulation and Modeling (3) Prerequisites: EE 380 (or MATH 380) and CECS 326.
Studies of general purpose and special simulation software. Model verification including graphical models Applications in various areas.
Master's students register in CECS 552 or 652; Ph.D. students register in CECS 652. Additional projects required for CECS 652 (Lecture-problems 3 hours.) Letter grade only (A-F).

## 553./653. Machine Vision (3)

Prerequisite: Graduate standing in engineering or computer science.
Discussion and laboratory implementation of current research in vision and image understanding. Topics include image formation, early processing, segmentation, relational structures in 2-D and 3D, motion, stereo, 3-D reconstruction, morphological methods and computer architecture for machine vision.
Master's students register in CECS 553 or 653; Ph.D. students register in CECS 653. Additional projects required for CECS 653. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).
570./670. Concurrent Parallel Programming (3)

Prerequisite: CECS 428 or 440 . (Master's students register in CECS 570 or 670; Ph.D. students register in CECS 670.)
An introduction to concurrent and parallel programming for multiprocessing as well as distributed systems. Computational models and paradigms. Parallel programming languages and programming tools. Portable parallel programming and mapping techniques. Heterogeneous concurrent programming. Concurrent programming on local networks on workstations and personal computers.
Additional projects required for CECS 670. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 572./672. Advanced Computer Networking (3)

Prerequisite: CECS 474.
Advanced concepts in computer network theory and practice. Computer network design and standards for local area networks (LANs) and wide area networks (WANs). Computer network configuration and performance issues.
Master's students register in CECS 572 or 672; Ph.D. students register in CECS 672. Additional projects required for CECS 672. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 575./675. Object-Oriented Analysis and Design (3)

Prerequisite: CECS 475 and either CECS 443 or 543.
Object-oriented (OO) approach to software development based on modeling objects from real world \& using model to build a language-independent design organized around objects. OO methodology from problem statement through analysis, system design, \& object design. Implement OO designs in target environments. Case studies.
Master's students register in CECS 575 or 675; Ph.D. students register in CECS 675. Additional projects required for CECS 675. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
590./690. Special Topics in Computer Science (3)

Prerequisites: Graduate standing and consent of instructor. Each offering is based on an area in computer science and technology in which recent advances have been made.
Master's students register in CECS 590 or 690; Ph.D. students register in CECS 690. Additional projects required for CECS 690. (Lecture-problems 3 hours.) May be repeated to a maximum of 6 units with consent of department. Letter grade only (A-F).
621./521. Database Architecture (3)

Prerequisites: CECS 328 and 323 (or 421).
Relational database design theory-a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization.
Master's students register in CECS 521 or 621; Ph.D. students register in CECS 621. Additional projects required for CECS 621. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 624./524. Advanced Topics in Programming Languages

 (3)Prerequisite: CECS 424 and 471 .
Intensive study of languages of current interest which support object-oriented, client-server, and multimedia applications (e.g. JAVA).
Master's students register in CECS 524 or 624; Ph.D. students register in CECS 624. Additional projects required for CECS 624. (Lecture-problems 3 hours.) Letter grade only (A-F).
626./526. Advanced Operating Systems (3)

Prerequisites: CECS 228 and 326.
Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlocks, mutual exclusion, virtual memory, resource management and scheduling.
Master's students register in CECS 526 or 626; Ph.D. students register in CECS 626. Additional projects required for CECS 626. (Lecture-problems 3 hours.) Letter grade only (A-F).
628./528. Advanced Analysis of Algorithms (3)

Prerequisite: CECS 328 and MATH 380.
Theoretical analysis of algorithms. Divide and conquer, dynamic programming and greedy algorithms; basic search and traversal techniques including search trees; sorting; matrix manipulations; NP-completeness.
Master's students register in CECS 528 or 628; Ph.D. students register in CECS 628. Additional projects required for CECS 628. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 630./530. Advanced Computer Architecture I (3)

## Prerequisite: CECS 440.

Fundamentals of computer architecture. Description of architecture and description languages. Basic computer design and central processor implementation. Memory hierarchy and input/output. Pipelining. Vector processor, multiprocessor systems and dataflow machines.
Master's students register in CECS 530 or 630; Ph.D. students register in CECS 630. Additional projects required for CECS 630. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 631./531. Advanced Computer Architecture II (3)

Prerequisite: CECS 530.
Advanced computer architecture with emphasis on parallel processing. Vector processors and multiprocessor systems. Dataflow computation. RISC/CISC. Hypercube. Parallel software. Applications in artificial intelligence, signal/image processing, neural network and optical computing.
Master's students register in CECS 531 or 631; Ph.D. students register in CECS 631. Additional projects required for CECS 631. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 643./543. Advanced Software Engineering (3)

Prerequisite: CECS 443.
Study of software engineering as a broad, problem-solving discipline. Includes structured programming and software project management.
Master's students register in CECS 543 or 643; Ph.D. students register in CECS 643. Additional projects required for CECS 643. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 644./544. Software Testing and Verification (3)

Prerequisite: CECS 543.
Various types of software testing and verification techniques for software development including black box, white box, incremental, topdown and bottom-up, static and dynamic, performance, regression, thread, and stress testing. Discussion of object-oriented software testing with a hierarchical approach. Metrics in complexity for testing, test, and verification plan will be introduced. Automatic software testing and some case studies.
Additional projects required for CECS 644. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
645./545. Software Architecture (3)

Prerequisite: CECS 543.
Includes architectural styles, pipes and filters, data abstraction and object-oriented organization, event-based, implicit invocation, layered systems, repositories, interpreters, process control, distributed processes, domain-specific software \& heterogeneous architectures. Component-based design patterns \& case studies.
Additional projects required for CECS 645. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 646./546. Fault Tolerant Computing Systems (3)

Prerequisite: CECS 530.
Fault tolerant techniques are studied as tools to assure the reliability and continuous availability of computing systems. Case studies of modern fault tolerant systems reviewed. Software fault tolerant systems studied as alternatives to verification and validation approaches to software reliability.
Master's students register in CECS 546 or 646; Ph.D. students register in CECS 646. Additional projects required for CECS 646. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 649./549. Advanced Computer Graphics (3)

Prerequisite: CECS 449.
Three-dimensional representations, transformations and viewing. Color models and modeling methods. Hidden-line and hidden-surface removal. Lighting and shading. Visual realism. Topics of current interest.
Master's students register in CECS 549 or 649; Ph.D. students register in CECS 649. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 650./550. Pattern Recognition Using Artificial Intelligence (3)

Prerequisite: CECS 451 or consent of instructor. (Master's students register in CECS 550; Ph.D. students register in CECS 650.) General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rulebased systems and neural networks.
Additional projects required for Ph.D. students. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).
651./551. Advanced Artificial Intelligence (3)

Prerequisite: CECS 451.
Advanced concepts in artificial intelligence. Topics include knowledge acquisition and representation, fuzzy logic, logical reasoning, multi-sensor integration, Dempster-Shafer's theory of evidential reasoning, real-time expert systems and neural networks.
Master's students register in CECS 551 or 651; Ph.D. students register in CECS 651. Additional projects required for CECS 651. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 652./552. Computer Simulation and Modeling (3)

Prerequisites: EE 380 (or MATH 380) and CECS 326.
Studies of general purpose and special simulation software. Model verification including graphical models Applications in various areas.
Master's students register in CECS 552 or 652; Ph.D. students register in CECS 652. Additional projects required for CECS 652. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 653./553. Machine Vision (3)

Prerequisite: Graduate standing in engineering or computer science.
Discussion and laboratory implementation of current research in vision and image understanding. Topics include image formation, early processing, segmentation, relational structures in 2-D and 3D, motion, stereo, 3-D reconstruction, morphological methods and computer architecture for machine vision.
Master's students register in CECS 553 or 653; Ph.D. students register in CECS 653. Additional projects required for CECS 653. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 670./570. Concurrent Parallel Programming (3)

Prerequisite: CECS 428 or 440.
An introduction to concurrent and parallel programming for multiprocessing as well as distributed systems. Computational models and paradigms. Parallel programming languages and programming tools. Portable parallel programming and mapping techniques. Heterogeneous concurrent programming. Concurrent programming on local networks on workstations and personal computers.
Master's students register in CECS 570 or 670; Ph.D. students register in CECS 670. Additional projects required for CECS 670. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 672./572. Advanced Computer Networking (3)

Prerequisite: CECS 474.
Advanced concepts in computer network theory and practice. Computer network design and standards for local area networks (LANs) and wide area networks (WANs). Computer network configuration and performance issues.
Master's students register in CECS 572 or 672; Ph.D. students register in CECS 672. Additional projects required for CECS 672. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 673./773. Topics in Distributed Computer Systems (3)

Prerequisite: CECS 572 or 672.
Network operating systems vs distributed operating systems, research and design issues of distributed operating systems, resources and resource management in distributed systems, communication security and user authentication.
Master's students register in CECS 673; Ph.D. students register in CECS 773. Additional projects required for Ph.D. students. (Lecture-problems 3 hours.) Letter grade only (A-F).

## 675./575. Object-Oriented Analysis and Design (3)

Prerequisite: CECS 475 and either CECS 443 or 543.
Object-oriented (OO) approach to software development based on modeling objects from real world \& using model to build a language-independent design organized around objects. OO methodology from problem statement through analysis, system design, \& object design. Implement OO designs in target environments. Case studies.
Master's students register in CECS 575 or 675; Ph.D. students register in CECS 675. Additional projects required for CECS 675. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
690./590. Special Topics in Computer Science (3)

Prerequisites: Graduate standing and consent of instructor.
Each offering is based on an area in computer science and technology in which recent advances have been made.
Master's students register in CECS 590 or 690; Ph.D. students register in CECS 690. Additional projects required for CECS 690. (Lecture-problems 3 hours.) May be repeated to a maximum of 6 units with consent of department. Letter grade only (A-F).

## 694. Seminar in Computer Science (3)

Prerequisite: 6 units of 500 or 600 level CECS courses.
Intensive study of a broad selection of conceptual and theoretical problems in computer science. A written student research project and an oral presentation are required.
Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Classified Graduate standing.
Theoretical and experimental problems in computer science and engineering requiring intensive analysis.
Independent Study. Letter grade only (A-F).
698. Thesis or Industrial Project (2-6)

Prerequisite: Advancement to Candidacy.
Planning, preparation, and completion of a thesis or equivalent industrial project report on a suitable topic in computer engineering and computer science following the library's prescribed format. Requires consultation with department's Graduate Advisor and submission of an Agreement for Independent Study form each semester of enrollment.
May be repeated to a total of 6 units.

## 773./673. Topics in Distributed Computer Systems (3)

 Prerequisite: CECS 572 or 672.Network operating systems vs distributed operating systems, research and design issues of distributed operating systems, resources and resource management in distributed systems, communication security and user authentication.
Master's students register in CECS 673; Ph.D. students register in CECS 773.) Additional projects required for Ph.D. students. (Lecture-problems 3 hours.) Letter grade only (A-F).

# CONSUMER AFFAIRS 

College of Health and Human Services
Department of Family and Consumer Sciences

Department Chair
M. Sue Stanley

Department Office
Family and Consumer Sciences (FCS) Bldg., Room 001
Telephone / Fax
(562) 985-4484 / 985-4414

## Website

www.csulb.edu/depts/fcs

## Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh

## Graduate Advisors

Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel

## Administrative Support Coordinators

Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in six option areas of study

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Merchandising
- Textiles and Clothing

Requirements for all majors include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is first accepted by the University.

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

## Consumer Affairs

Consumer Affairs provides students with a foundation in Consumer Advocacy, Personal Financial Management, and Housing Services. The program focuses on how businesses, government agencies, and community organizations interact with families and consumers. Career opportunities could include: consumer credit counselor, consumer protection agent, consumer educator, financial counselor, marketing consultant, sales representative, customer service representative, paralegal, property manager, housing counselor, homeless coordinator.

## Option in Consumer Affairs (code FCS_BA03) (120 units)

ACCT 201; ECON 100 and 101 or 300; ENGL 101, 317, 417, 418, or 419; CAFF 223, 226, 228, 321, 322, 420, 422, 425, 426, 429, 492C or three units of FCSE 497; CDFS 312I; FCSE 299, 387, 486, 499; MKTG 300, 490; PSY 100; SOC 100; C/LA 250 or SOC 250 , plus 9 units of advisor approved electives. Each course on the student's program planner must be completed with a grade of " C " or better. In addition, a course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Consumer Affairs Area Coordinator.

## Minor in Consumer Affairs (code FCS_UM01)

Eighteen units as approved by a Consumer Affairs faculty advisor. Nine units of required courses include: CAFF 223, 226, 322; and 9 upper division units selected from CAFF 420, 422, 425,426 , and 429 are required to complete the minor.

The Minor in Consumer Affairs is available to any nonConsumer Affairs major.

## Consumer Affairs Courses (CAFF)

## LOWER DIVISION

## 223. Personal and Family Financial Management (3) <br> Prerequisites: Completion of G.E. Foundation courses. <br> A functional approach to personal finance including budget systems, consumer credit, insurance, debt collection system, status obligation, accumulating reserves. Applicable for personal and professional use. <br> (Lecture-discussion 3 hours.)

226. Consumer Life Skills (3)

Prerequisite: Completion of the G.E. Foundation courses.
Consumer life skills with an emphasis on practical applications in the marketplace. Includes the history of the consumer movement, consumer rights and responsibilities, financial wellness, consumer debt, consumer behavior, fraud, and consumer redress.
(Lecture-discussion 3 hours.)

## 228. Housing in Global Perspective (3)

Prerequisites: Completion of G.E. Foundation courses.
Family housing options and choices in urban and rural areas throughout the world viewed within the context of history, politics, culture, art, environment, geography, technology and economics. (Lecture-discussion, 3 hours).

## UPPER DIVISION

## 309I. The Consumer in the Legal and Economic Environment (3)

Prerequisites: Completion of G.E. Foundation courses; completion of one or more Exploration courses; upper division standing. Incorporates an integrated coverage of the economic, legal, ethical and regulatory environment of consumers in avoiding and resolving disputes regarding fraudulent transactions, financial matters, personal and real property contracts, torts, credit and investment issues, and family relationships. Team taught. Same course as FIN 309I. (Lecture-discussion 3 hours.)

## 321. Family and Consumer Resource Management (3)

Prerequisites: Completion of G.E. Foundation courses; upper division standing. Basic management principles applied to personal and family settings.
The role of values, goal formation, decision-making, planning, implementing, and evaluation of managerial behavior in diverse family and cultural settings are examined.
(Lecture-discussion 3 hours.)

## 322. Family Housing and the Urban Community (3)

Prerequisites: Upper-division standing.
Critical analysis of family housing in the urban community including aspects of shelter, city and service providers. Sociological, psychological, legislative, economic and technical factors are investigated. Special attention is given to families of various structures and socioeconomic background.
(Discussion 3 hours.)
420. Personal Finance for the Aging (3)

Prerequisites: 400 -level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as GERN 420. (Lecture-discussion 3 hrs)
*422. Housing Policies: Public and Private (3)
Prerequisites: CAFF 322, upper division standing or consent of instructor.

Federal, state, and local policies, programs and legislation concerning housing and urban development. Analysis of the housing industry and its influence on the consumer market. Letter grade only (A-F). (Discussion 3 hours.)

## *424. Independent Living for Disabled and Elderly Persons (3)

Prerequisite: CAFF 321 or 322 or GERN 400 I or consent of instructor.
Independent living concepts related to physically and/or functionally disabled adults. Personal, environmental and programmatic responses to disability and aging.
Letter grade only (A-F). Same course as GERN *424. (LectureActivity 3 hours.)

## *425. Personal Financial Planning Analysis (3)

Prerequisite: CAFF 223 or consent of instructor.
Analysis and protection of personal and family resources; planning and forecasting goals; development of financial strategies utilizing insurance, investment, tax management, pensions, wills and trusts. (Lecture-discussion 3 hours.)

## *426. Family Financial Problems (3)

Prerequisite: CAFF 223 or consent of instructor.
Theory and practice in the diagnosis of family financial crises; selecting alternative solutions; constructing practical methods for the prevention of family financial problems.
(Discussion 2 hours, laboratory 3 hours.)
*428. International Housing (3)
Prerequisite: CAFF 322 and upper division standing.
Theories and solutions of family housing in urban and rural communities throughout the world.
Letter grade only (A-F) (Discussion 3 hours.)

## 429. Consumer Protection (3)

Prerequisites: Upper Division course in consumer affairs or consent of instructor.
Concepts of consumer protection with analysis of a myriad of resources available for individuals and families with consumer problems.
(Seminar 3 hours.)

## 492C. Internship in Consumer Affairs (3)

Prerequisites: Student must be a Family and Consumer Sciences: Consumer Affairs major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Consumer Affairs; and CAFF 226, 321, 422, 425, 429, or consent of instructor. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.

May be repeated for 6 units maximum. (Seminar 3 hours.)

## COOPERATIVE EDUCATION

Division of Student Services

## Director

Robin T. Lee

## Office

Career Development Center
Office
Brotman Hall (BH) 250
Telephone
(562) 985-5552

The Cooperative Education Office serves as a link between the University's academic programs and those public and private employers interested in the Internship Program. The program is designed to offer students academic credit for participation in monitored part-time or full-time practical and professional work experience that is directly related to their academic major or career goal.

The Cooperative Education Office offers internships by the Internship Program that are also designed to assist students in gaining a deeper understanding of the relationship between theory and practical application. Through on-the-job experience, students can assess their capabilities, clarify values, and explore career goals.

The accompanying internship courses (see below) provide students with up to 6 units of elective academic credit based on the work experience and required course assignments. Course discussions include relevant topics such as work ethics, communication skills, conflict resolution, and employer-employee relations. Written assignments enable students to review the learning that takes place in the hands-on environment.

## Curriculum

## CBA 493. Business Internship (1-3)

Prerequisites: Classified business major and Instructor consent, IS 301.

Qualifying students placed in career-related paid assignments in private or public agencies or businesses. Organized plan utilizing series of seminars and learning agreements required with selected reading and writing assignments.
A minimum of 120 hours paid experience per semester is required. May be repeated to a maximum of 6 units.

## ED P 492. Internships in the Human Services (3)

Prerequisite: Consent of instructor.
Students are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. The required fifteen hour seminar will focus on personal values, interpersonal communications skills, critical thinking, and problem solving. Development of knowledge and skills transferable to future careers will be stressed.
A minimum of 120 hours field experience is required for the semester.

## ENGR 492B. Internship In Engineering (3)

Prerequisite: Upper division standing and consent of the instructor.
A Co-Op field experience. Students who qualify can be placed in a major- or career-related, pre-professional experience as an employee in private industry or in public agencies.
May be repeated to a maximum of 6 units. (Lecture-problems 3 hours)
HHS 492. Field Studies and Career Exploration (1-3)
Prerequisites: Consent of the instructor and a minimum GPA of 2.0.

Participate in fieldwork assignments relating to majors and intended professions. Participate in volunteer or paid assignments in private industries, non-profit organizations, or public agencies. Attend series of seminars designed to complement field assignments focusing on issues common to work setting.

## NSCI 492. Internships In Natural Science (3)

Prerequisites: Major in the College of Natural Sciences and Mathematics, completion of 9 units of upper division science coursework, a 2.5 GPA overall or 2.75 GPA in the student's major, and consent of instructor prior to registration.
Students who qualify will be placed in a major or career-related assignment in private industry or at a public agency. Students may be placed in either a volunteer or paid work assignment. Teacher aide positions may be used for students interested in pursuing a career in science education in K-12 schools.
Learning assignments will be arranged through the Career Development Center and the instructor. Final written report required. Class attendance and internships to be arranged by the instructor. Minimum of 120 hours of field experience required. Credit/No credit grading only.

## Department Chair

Judy Hails
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Faculty
Professors
Bruce Berg, Elizabeth Deschenes, Judy Hails, Harvey N. Morley, George Rush, Sam Torres, Ronald E. Vogel , John Wang

## Associate Professor

Brenda Vogel
Assistant Professor
Connie Ireland
Tracy Tolbert
Undergraduate Advisor
Brenda Vogel
Graduate Advisor
Elizabeth Deschenes
Internship Coordinator
Harvey Morley
Office Manager
Susan McNamara

The department of Criminal Justice offers an undergraduate bachelor of science degree and a graduate master of science degree. These programs are designed to provide students with an appropriate academic background for a professional career in corrections, law enforcement, probation, parole, or social service agencies. In addition, the programs are designed to prepare students for continuing graduate studies in criminal justice, criminology, or law.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Criminal Justice (code CRIMBS01) (120 units)

The program in criminal justice offers the bachelor of science degree to individuals interested in seeking a comprehensive education leading to a professional career in criminal justice. The program is designed to accommodate the needs of the continuing student, the transfer student, and the experienced criminal justice practitioner. Unfortunately, it is not possible to always offer sufficient courses in the evenings for students to graduate with a degree in criminal justice without taking daytime classes.

Students intending to transfer from community colleges to this University for a bachelor of science degree in criminal justice are advised to complete general education requirements while attending the community college. A course equivalent to CRIM 101, The Criminal Justice System in Society, should be taken while attending community college. Other criminal justice courses taken at community colleges will be accepted as lower division electives provided the college where they were taken designated them as transferable to CSU. These courses can not be substituted for upper division criminal justice courses.

## Requirements

All students are required to take a minimum of 42 units of criminal justice course work to meet the department requirements for a bachelors degree in Criminal Justice: 30 units are core and 12 units are upper division electives in the major. CRIM 101 is a prerequisite or corequisite for all core courses.

To be eligible for admission to the major in Criminal Justice, applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 30 units applicable toward a CSULB degree prior to the term for which the application is submitted. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average, with a minimum of 2.4.

The 30 units of required courses that constitute the core are: CRIM 101, 151, 303, 351, 404, 468, 480, 483, 487 and 495. Students with upper division transfer units should consult the undergraduate advisor regarding substitutions
for core classes. Courses taken at a two-year college may not be substituted for upper division core courses. All core courses must be passed with a letter grade of "C" or better (credit/no credit is not an option). Specifically, every core course in which a student receives a final grade of " $D$ " or " $F$ " must be repeated until a grade of " $C$ " or higher is achieved.

In addition to the core classes, students are required to complete 12 units of upper division Criminal Justice electives. Of these electives, at least one must be selected from the following: CRIM 305, 331 or 373. Any Criminal Justice course in the CSULB catalog numbered 300 to 499 that is not a core class may be used as a Criminal Justice elective. Students with upper division transfer units should consult the undergraduate advisor regarding substitutions.

## Minor in Criminal Justice (code CRIMUM01)

## Requirements

All students are required to take a minimum of 21 units of criminal justice course work to meet the department requirements for a minor in criminal justice: 15 units are core plus six units of upper division criminal justice elective classes. CRIM 101 is a prerequisite or corequisite for all core courses. Students who would like to declare and/or change to criminal justice as their minor must have an overall G.P.A. of 2.0 and be enrolled in or have completed CRIM 101 or an equivalent course at another college or university. Alternative admission requirements may apply during times when the department is impacted.

The 15 units of required courses that constitute the core are: CRIM 101, 351, 404, 468 and 483 . All core courses must be passed with a letter grade of "C" or better (credit/no credit is not an option). Specifically, every core course in which a student receives a final grade of "D" or "F" must be repeated until a grade of " $C$ " or higher is achieved.

In addition to the core classes, students are required to complete 6 units of upper division criminal justice electives, which may be taken before, concurrently, or after the core courses. Any criminal justice course in the CSULB catalog numbered 300 to 499 that is not a core class may be used as a criminal justice elective. Students with upper division transfer units should consult the undergraduate advisor regarding substitutions. Courses taken at a two-year college may not be used to meet upper division requirements.

## GRADUATE PROGRAMS

## Master of Science in Criminal Justice (code CRIMMS01)

Graduate study in criminal justice provides the requisite knowledge and opportunity for individuals to (1) be competitive for administrative positions in the courts, corrections, law enforcement, private security, probation and parole, (2) fill research positions in criminal justice agencies, (3) pursue advanced degrees (J.D. or Ph.D), and (4) fill community college teaching positions in criminal justice.

The master of science degree in criminal justice will expand and increase individual competency, develop and mature thought processes, aid in gaining insights into
professional leadership and knowledge, permit an exchange between students and faculty, and further the spirit of research and scholarship to enhance professional and personal development.

## Admission

Students seeking admission to the Department of Criminal Justice Graduate Program should have an undergraduate degree and a desire for graduate study. Applicants must apply for admission to the Criminal Justice Department in addition to being admitted by Enrollment Services. Students must be accepted for admission by the Department before their program for a master's degree can be formulated. Students are not allowed to take graduate course work in criminal justice before being accepted to the program. The following items must be completed:

1. A graduate application. The original must be sent to

Enrollment Services and a copy to the Department of Criminal Justice.
2. Scholastic achievement as represented by official transcripts of all undergraduate course work. Each applicant must request that official transcripts be sent to both the Graduate Advisor in the Criminal Justice Department and Enrollment Services.
3. Resume and statement of goals must be sent to the Department's Graduate Advisor;
4. Three letters of recommendation from persons able to testify to the student's academic ability. These letters must be sent to the Department of Criminal Justice Graduate Advisor.

## Prerequisites

1. A bachelor's degree with a major or minor in criminal justice or a related discipline. The acceptability of other undergraduate preparation shall be determined by the Department Graduate Committee;
2. A student must have an overall undergraduate average (GPA) and average in their major of 3.0 or better. A student whose overall grade point average is less than 3.0, but who presents acceptable evidence of professional potential either through recent academic performance and/or experiential background, may be admitted by special action of the Department's Graduate Committee.

## Advancement to Candidacy

1. Students must satisfy the general University requirements for advancement to candidacy, as specified in this bulletin.
2. Before advancing to candidacy students must have fulfilled the Graduation Writing Assessment Requirement (GWAR).
3. Before advancing to candidacy students must successfully complete six graduate units with a minimum grade of " B " in each of the courses.
4. Each student's graduate program must be approved by the

Department Graduate Advisor and Director of Graduate Studies and Research, College of Health and Human Services.

## Requirements

Eighteen (18) units of required courses constitute the core: CRIM 581, 582, 583, 584, 695, 698

In addition to the core classes, students are required to complete 12 units of electives. These courses are to be selected after consultation with the graduate advisor. A
maximum of 6 units may be taken from 300 or 400 -level courses in Criminal Justice designated with a * in the CSULB Catalog. Undergraduate courses that are not designed with a * may not be applied toward the master's degree. No more than six units of CRIM 599 can be taken. Up to six units of graduate work may be transferred from another accredited university or another department in CSULB. Transfer credit must be a " $B$ " or better. All students must earn a grade of "A" or " $B$ " for each required course. Students may not have more than 6 units of "C" grades apply toward the master's degree. Advancement to candidacy is necessary before Thesis I or Thesis II can be taken.

## Thesis or Project

The thesis or project is a supervised experience in the application of theory and analytical tools to an issue in criminology or criminal justice. The thesis should prepare students for further graduate work or research in the field. The project should provide an experience that is directly applicable to an occupation in the criminal justice field.

The thesis is a written product of the systematic study of a significant problem. It clearly identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendations. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. The coursework is supervised by a committee of three, including the Thesis Chair, who must be a full-time tenure-track or tenured faculty member in the Criminal Justice Department and two other faculty members.

The project is a significant undertaking appropriate to the professional field. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written report that includes the project's significance, a review of the literature, objectives, methodology, and a conclusion or recommendations. The coursework is supervised by a committee of three, including the Project Chair, who must be a full-time tenure-track or tenured faculty member in the Criminal Justice Department and two other faculty members.

## Courses (CRIM)

## LOWER DIVISION

## 101. The Criminal Justice System in Society (3)

Prerequisites/Corequisites: One of the foundation courses (may be taken concurrently).
Introduction to the history and philosophy of the criminal justice system: survey of theories of crime, punishment and rehabilitation; study of ethical issues in social control. Interaction between the citizen and the components of the system will be examined.
(CAN AJ2) Letter grade only (A-F).
151. Introduction to Criminal Law (3)

Prerequisite: CRIM 101.
Historical development and current application of criminal law and related constitutional provisions. Focus is on major crimes against the person and against property. Capacity to commit crimes and affirmative defenses are also covered.

## UPPER DIVISION

## 301. Contemporary Issues in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101.
Criminal Justice studied as a total interacting system: police, corrections, probation and the judiciary. Special emphasis is placed on current issues and problems.
302. Communication for Criminal Justice (3)

Prerequisite: ENGL 100; upper division standing; open only to Criminal Justice majors.
Written communication principles and practice in the criminal justice profession.

## 303. Statistics for Criminal Justice Administrators (3)

Prerequisite/Corequisite: CRIM 101.
Emphasis is placed upon understanding statistics used for analysis of data by criminal justice administrators. Both descriptive and inferential statistics will be covered. The strengths and weaknesses of frequently used statistical software packages will be included.
Letter grade only (A-F).
*305. Ethical Concerns in Criminal Justice (3)
Identifies and explores ethics, values, definitions and applications in the criminal justices system: police, courts, probation, parole, corrections, and private security organizations. Discusses remedial strategies and behavior relating to unethical behavior from an individual and group perspective.

## 325. Police Administration (3)

Program approach to the study or police administration. Overview of administration of the police function in the United States. Organization, management and operation of police agencies.
331. Security and the Criminal Justice System (3) Prerequisite/Corequisite: CRIM 101.
A study of the theoretical and actual association between security functions in the criminal justice system. Topics explored include: historical and contemporary relationship between private security and sworn law enforcement, institutional culture, terrorism, computer technology, forensics and physical/operational security. Letter grade only (A-F).

## 351. Adjudication Process in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101.
Topics include: arraignments and preliminary hearings; suppression hearings; sanity hearings; trials; sentencing in capital and non-capital cases; juvenile court proceedings; and revocation of probation and parole. Civil Rights Act cases and other civil suits involving criminal justice personnel are discussed.
Letter grade only (A-F).

## 356. Legal Aspects of Corrections (3)

An overview of court decisions related to corrections. Study of current legal issues and their impact on adult and juvenile procedures.
*359. Substance Abuse and the Criminal Justice System (3)

Social and psychological factors in alcohol and drug use, abuse and addiction. Legal and social elements of substance abuse and their relationship to criminal justice system. Characteristics of various controlled substances; categories of drug offenses; and investigation of drug cases.

## 361. Criminal Investigation (3)

Study of basic principles of criminal investigation. Analysis of investigative techniques; patterns and modus operandi; interviewing and interrogation strategies; collection and management of evidence; surveillance; and crime scene investigation. Theories, philosophies, and concepts related to suppression of crime are covered.

## 369. Correctional Environments (3)

Introduction to American penology. A first-hand examination of county, state and federal correctional facilities. It includes the Department of Family and Children's Services (foster care, county and private facilities), juvenile halls, juvenile court, and California Youth Authority.
Field trips will be required. Course fee may be required.

## 373. Victimology (3)

Advances an ecological approach to the study of victimology. Theories and history shaping the social, psychological, biological, and environmental characteristics of crime and victimization in the United States, paying particular attention to issues of gender and violence.
404. Theories of Crime Causation, Prevention and Control (3)

Prerequisite/Corequisite: CRIM 101.
Exploration of theories and policy implication of crime. Political, social, and economic context will be used to explore the etiology of criminal behavior. Underpinnings of criminological theory are traced through history by focusing on connection to biology, psychology, and sociology.
Letter grade only (A-F).
405. Job Stress and the Criminal Justice System (3)

Theoretical foundations of stress based on current research findings with emphasis on individual assessment, signs and symptoms, causes and effects. Specific stress management skills such as relaxation, meditation, self hypnosis, pain control, biofeedback, nutrition, and exercise will be covered.
Not available to students with credit in CRIM 499 (Job Stress).
420./520. Criminal Justice Information and Technology (3)

Exploration of computer and technology's use for criminal justice administrators. Focuses on using technology to collect, manage, analyze and display crime information as a map, chart, or table. Usefulness of data found on the Internet will be discussed. Assignments and projects for graduate students will be weighted differently than those for undergraduates.
Letter grade only (A-F).

## 424. Theories of Complex Criminal Justice Organizations

 (3)Theories, concepts, issues and applications of administrative and management styles within various criminal justice organizations. Emphasis on various organizational systems, leadership approaches, organizational culture, occupational socialization; recruitment and retention, communications, change and adaptability, and motivation of organizational members.
*451. Search and Seizure, Confessions and Evidence (3)
A study of criminal procedures mandated by U. S. Constitution with emphasis on search and seizure, confessions, and the right to counsel. Course covers evidentiary rules that must be employed to introduce testimony and physical evidence in a court proceeding.
Not available for students with credit in CRIM 353.

## 468. Correctional Systems (3)

Prerequisite/Corequisite: CRIM 101.
Historical and philosophical reactions to law violators. Overview of institutional and community corrections. Examination of differing penal institutions. Evaluation of rehabilitation as crime control strategy. Alternatives to incarceration will be explored as criminal sanctions.
Field trips may be required. Letter grade only (A-F).

## *470. Probation, Parole and Community Corrections (3

Focus is on probation, parole and other intermediate sanctions and community treatment options. Each is examined from both punishment and treatment model perspectives. The pre-sentence investigation (PSI) will be analyzed. Supervision of offender in community and revocation will be discussed.
Field trips may be required.

## *477. Correctional Counseling (3)

Theories and techniques utilized by correctional counselors. Various counseling and crisis intervention strategies are examined: reality therapy, behavior modification, group counseling, and 12step programs. Special problems, such as substance abusers, mental illness, the elderly, and sex offenders, are considered.

## 480. Introduction to Research Methods in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101.
Introduction to basic techniques in criminal justice research including library research, report writing, research design models, sampling techniques, questionnaire construction, interview techniques and participant observation.
Letter grade only (A-F).
*482. Crime, Criminal Justice Systems and the Political Process (3)
The social, historical, economic, and political forces that shape policies in criminal justice are explored. A critical analysis of the legislature, police, courts and corrections is used to examine the efficacy, fairness, and quality of justice in our society. Designed to promote and develop critical thinking skills.
483. Enforcement Systems (3)

Prerequisite/Corequisite: CRIM 101.
Historical roots of American policing. Police as a social institution and control agent; contemporary role of the police officer. Consideration of modern police patrol strategies; training procedures; ethical standards; under-represented groups in police departments; discretion; and corruption in police agencies.
Letter grade only (A-F).

## 484. Comparative Criminal Justice Systems (3)

Prerequisites: CRIM 101 or consent of instructor.
Survey of nationwide and worldwide criminal justice philosophies and techniques. Evaluation of current major hypotheses. Review of recent developments and contributions by agencies and academic institutions. Review of current literature in the field.
Letter grade only (A-F).

## 487. Juvenile Justice (3)

Theoretical foundations of delinquency causation. Historical tracing of the American juvenile justice system including the juvenile court and its jurisdiction. Police interaction with juveniles; treatment and correctional strategies for young offenders. Examination of prevention and treatment approaches.
490. Independent Study (1-3)

Prerequisite: Consent of instructor.
Individual research and study approved by major professor.
*492. Criminal Justice Response to Domestic Violence (3)

Domestic violence is studied as a phenomenon that impacts the criminal justice system. Spouse abuse, child abuse and elder abuse are studied. Strategies for criminal justice personnel handling these cases are stressed.

## 493. Computer Applications in Criminal Justice (3)

Focuses on computer applications to local, state, and federal criminal justice agencies: data processing as well as other computer applications in training, research, field operations, supervision, and administration. Civil liberties issues are discussed as well as security options.

## 494. Criminal Justice and Gangs (3)

Covers the multifaceted aspects of gangs, gang membership and identification. Subjects include historical, psychological, sociological, and economic rationales for gang involvement. Topics include causal factors, coping mechanisms, and remedial systematic approaches.
Not open for credit to students with credit in CRIM 499D.

## *495. Internship (3)

Prerequisite: Consent of instruction and CRIM 101.
Supervised work experience in criminal justice agency in the immediate area.
May be repeated for a maximum of 6 units. Not open for credit to students employed in criminal justice agencies.

## 499. Special Topics in Criminal Justice (3)

Prerequisite: Consent of instructor.
Topics of current interest in the field of criminal justice selected for intensive development.
Topics are announced in the Schedule of Classes. May be repeated for a maximum of 9 units with different topics.

## E. Readings in Criminology and Criminal Justice

## GRADUATE LEVEL

## 512. Seminar on Diversity and Criminal Justice Practices

 (3)Prerequisite: Restricted to Criminal Justice master's students; all other graduate students must have consent from Graduate Advisor.
Study of the effect social, economic, and cultural diversity has on the development and implementation of criminal justice practices. Will include topics such as hate crimes, minority perceptions of crime, victim services, and cultural awareness.
Letter grade only (A-F).

## 520./420. Criminal Justice Information and Technology

 (3)Prerequisite: Restricted to Criminal Justice master's students; graduate students from other departments must have consent from Graduate Advisor.
Exploration of computer and technology's use for criminal justice administrators. Focuses on using technology to collect, manage, analyze and display crime information as a map, chart, or table. Usefulness of data on the Internet will be discussed.
Graduate students will be expected to complete two projects; undergraduates must do one project. Grades for projects by graduate students will be weighted differently than those for undergraduates. Letter grade only (A-F).

## 551. Legal Issues in Criminal Justice (3)

Prerequisite: Consent of the Graduate Advisor. Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Aim is to develop feasible solutions for legal issues: arrest, search, seizure, confession; pre-trial procedures; mental health issues; Exclusionary Rule; role of judge, prosecutor and defense attorney; jury system; trial procedures; sentencing; prisoner rights; civil cases and forfeiture proceedings.
Letter grade only (A-F).

## 581. Theories of Crime Causation and Prevention (3)

Prerequisites: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Relationship and interaction between social structure and crime. Investigation into the classical and behavioral theories of crime and crime prevention.
Letter grade only (A-F).

## 582. Advanced Statistics for Criminal Justice Research

 (3)Prerequisites: One undergraduate social science statistics and research methods course. Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Statistical inference in normally distributed populations. Regression and multivariate analysis of research data. Utilization of nonparametric statistics.
(Lecture 3 hours) Letter grade only (A-F).

## 583. Research Methodology (3)

Prerequisites: One undergraduate research and statistics course. Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Scientific method of research; variations in research design and methodology; application of research findings to problem solutions. Not available to students with credit in CRIM 696.
Letter grade only (A-F).

## 584. Professional Literature (3)

Prerequisites: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Critical analysis and comparative review of professional literature in criminal justice practice, theory, and research. Will include topics of components of research publications; substantive content of articles; library/online searches; critiques of the literature, citations, reference styles, and literature reviews.
Not available for students with credit in CRIM 691. Letter grade only (A-F).

## 590. Independent Study (1-3)

Prerequisite: Consent of instructor.
Individual research and study approved by graduate advisor. Letter grade only (A-F).

## 599. Special Topics in Criminal Justice (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Group investigation of selected topics in criminal justice.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 621. Seminar on the Administration and Management of Criminal Justice Organizations (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Study of criminal justice policy development and implementation; administrative theory and issues; problems and current agency activities.
Letter grade only (A-F).

## 623. Seminar in Comparative Criminal Justice Administration (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Advanced study of the theories, philosophies and techniques of criminal justice worldwide and nationwide. Intensive review of the literature, recent developments, and individual research.
Letter grade only (A-F).

## 624. Crime and Public Policy (3)

Prerequisite: Course is restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Intensive study of problem areas in crime and justice. Will include topics of control and prevention of crime in urban settings; changing law enforcement and correctional policies; philosophy of law; inter-agency relationships.
Letter grade only (A-F).

## 630. Seminar on Organized Crime (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Historical development of organized crime and various techniques used to control that form of criminality. Detailed consideration of the political, social and economic conditions of its evolution.
Not available to students with credit in CRIM599 on the topic
"Organized Crime." Letter grade only (A-F).

## 640. Seminar on Police Organization and Management

 (3)Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Leadership theories, practices, issues, and trends in managing police organization. Thematic areas of focus are: values, ethics, team building, empowerment, politics, community oriented policing, and future forecasting.
Letter grade only (A-F).

## 641. Seminar in Correctional Policy and Administration

 (3)Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Study of the history, development and implementation of correctional programs. Analysis of the theories, philosophies, concepts and issues related to the administration and management of prisons, probation, and parole.
Letter grade only (A-F).

## 650. Seminar in Juvenile Justice (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Study of juvenile justice programs administered by the police, court, and correctional agencies; analysis of theories of delinquency causation and prevention; current issues. Letter grade only (A-F).

## 695. Thesis or Project I (3)

Prerequisite: Advancement to Candidacy. Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Student works under direct faculty supervision to complete a proposal for the research study or project. Comprehensive review of the literature on a topic and development of appropriate methodology. For project option, student must obtain agency approval and agreement.
Letter grade only (A-F).

## 697. Directed Research (3)

Prerequisite: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
Extensive independent research on assigned topic addressing theoretical criminology and synthesis of literature on current issues in criminal justice. Work produced in CRIM 697 will be presented in CRIM 699.
Not available to students in thesis option. Letter grade only $(A-F)$.

## 698. Thesis or Project II (1-4)

Prerequisite: CRIM 695. Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
For thesis option, student conducts research and data analysis to complete thesis. For project option, student documents progress in project design and implementation.
Letter grade only (A - F).

## 699. Integrated Analysis of Criminal Justice (3)

Prerequisite: CRIM 697; restricted to Criminal Justice master's students, all other students must have consent from Graduate Advisor.
Integration and synthesis of key concepts and issues related to the administration of criminal justice. Project is required.
Not available to students in thesis option. Letter grade only (A-F).

## DANCE <br> College of the Arts

Department Chair<br>Judy Allen<br>Department Office<br>Dance Center<br>Telephone<br>(562) 985-4747<br>FAX<br>(562) 985-7896<br>Faculty<br>Professors<br>Judy Allen, Susan McLain<br>Associate Professor<br>Karen Clippinger<br>Assistant Professor<br>Colleen Dunagan, Keith Johnson, Lorin Johnson, Andrew Vaca<br>\section*{Administrative Coordinator}<br>Jennifer Ruther<br>Clerical Assistant<br>Lin Burch

The CSULB Department of Dance is committed to artistic and academic excellence that promotes the value of dance for the individual and society. Its curricula emphasize modern dance performance and composition with supporting course work in ballet, jazz, tap, world dance, and dance theory. Course of study embraces creative, historical, and scientific perspectives of dance. The Department is also committed to the artistic enhancement of the campus and community through practical/theoretical dance courses for the general university student, performances, and residencies. In addition, the Department avidly promotes the profession through creative activity and scholarly research, leadership in professional organizations, and participation in dance festivals/conferences at the regional and national levels.

The Department offers two undergraduate degree programs: the Bachelor of Fine Arts and the Bachelor of Arts in Dance. Both degrees provide a wide breadth of exploration in the creative, physical, and academic aspects of the art of dance. The BA provides students with a balanced course of study that helps prepare them for careers in education, arts administration, health and fitness, or further academic pursuits. The BFA, a professional degree in Dance, offers students more concentrated study in the areas of technique, performance, and choreography aimed at preparing the student for a professional career.

The Department also offers two graduate degree programs: the Master of Fine Arts and the Master of Arts in Dance. The MFA is a demanding program designed to challenge professionally experienced students to develop
their artistic and analytical work through numerous performances and choreographic opportunities. This terminal degree prepares candidates for careers in education, performance, and choreography. The MA in Dance is a concentrated program for dance educators currently working in high schools and community colleges. This advanced degree enhances teaching and choreographic skills, while broadening aesthetic, historical, and scientific understandings of dance.

Non-major studio classes in ballet, modern, jazz, and tap are open to all students and do not require any audition. Several courses are offered which meet the General Education Exploration and Capstone requirements in categories C, D, E, and IC.

A large number of part-time faculty members supplement the expertise of the full-time faculty.

Dance concerts with faculty, students, and visiting choreographers are held in the Martha B. Knoebel Dance Theater. Dance majors and minors are encouraged to participate in activities of the Dance student organization "Off 7th Dancers."

Students wishing to major or minor in dance must audition for placement prior to starting the program. Auditions are held four times per year. Applicants should contact the Department of Dance to obtain audition dates and an audition application form. Students desiring more information should contact the Department office for referral to one of the faculty advisors. All new students enter the major under the BA degree. A separate audition for entrance into the BFA degree plan is required.

The Department is an accredited institutional member of the National Association of Schools of Dance (National Association of Schools of Dance, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Dance (code DANCBA01) (120 units)

## Requirements

Composition (8 units): DANC 120, 220, 320.
Theory ( 21 units): DANC 100, 131, 260, 373I, 435I, 442B; 470, or 475; three units from 488, 491A, or 491B.
Performance/Production (4 units): Two units from 181A, 181B, 381A, 381B, 481A, or 481B; two units from 180A, 180B, 295, 380A, 380B, 480A, 480B, or 495.
Technique (20 units): Twelve units from DANC 152, 252, 312, 412, (3 units must be earned from 312 or 412 ); eight units from DANC 154, 254, 314, 316, 414 (3 units must be earned from 314 or 414).
Electives ( 6 units): Select six units from DANC 161, 262, 350, 360, 362, 420, 442A, 445, 470, 475, 488, 491A, or 491B.

## Option in Dance Science (code DANCBA02) (120 units)

The B.A. in Dance, Option in Dance Science offers the dance major a course of study combining dance with specific science courses for students interested in teaching careers in dance, or careers in dance fitness. This degree also gives preparation for those who seek graduate education in the areas of dance science or related dance studies.

Admission into the program is the same for the general B.A. in Dance, which requires passing an entrance audition for placement in the major sequence of dance technique courses and meeting all University entrance requirements.

## Requirements

Composition (5 units): DANC 120, 220.
Theory (40 units): DANC 100, 131, 161, 260, 262, 360, 373I, 442B, 470; BIOL 207, 208; KIN 300, 301, 312.
Performance/Crew (2 units): one unit from DANC 181A, 181B, 381A, 381B, 481A, 481B; one unit from DANC 180A, 180B, 295, 380A, 380B, 480A, 480B, 495.
Technique ( 20 units): twelve units from DANC 152, 252, 312, or 412; 3 must be earned in 312 or 412 . Eight units from DANC 154, 254, 314, 316, or 414; 3 must be from 314 or 414.
Electives: 5-6 units from DANC 362, NUTR 430, KIN 307, 309, 315, 339I, 363, 368, 430, 462, 467.

## Bachelor of Fine Arts in Dance (code DANCBF01) (132 units)

The Bachelor of Fine Arts in Dance is the only professional undergraduate degree in Dance in the CSU. The primary objective of the degree program is to prepare graduates for positions as performers and/or choreographers in dance companies, musical theatre, film, and television. The program also will prepare students for entry into Master of Fine Arts programs in Dance. Preparation: All students wishing to pursue the BFA in Dance must demonstrate intermediate/advanced technical skill in dance by audition. Students may take the BFA studio audition, for entrance into this degree plan, after completing the following course work with a grade of " B " or better: DANC 120, 220, 252, 254, 380A or B, 381A or B.

## Requirements

Composition (11 units): DANC 120, 220, 320, 420.
Theory (29 units): DANC 100, 131, 260, 161 or 262, 350 or $445,3731,442 A, 442 B, 470$ or 475 ; six units from 488, 491A, or 491B.
Performance/Production (7 units): Two units from DANC 181A, 181B, 381A, 381B, 481A or 481B; five units from 180A, 180B, 295, 380A, 380B, 480A, 480B, or 495.
Technique (25 units): Fifteen units from DANC 152, 252, 312, 412; 3 units must be earned from 412. Ten units from DANC 154, 254, 314, 316, 414; 3 units must be earned from 414.
General Education (3 units): Three units from AH 111A, 111B, 335I; CWL 124, 161, 232, 324I, 412I; DANC 435I; PHIL 361; MUS 180, 190, 290, 363I, 364I, 375, 490; THEA 113, 124, 324 I.

## Minor in Dance (code DANCUM01)

Students wishing to minor in dance must audition for placement prior to starting the program. The Minor in Dance is available to any non-dance major.

## Requirements

24 units of which 9 must be upper division. Technique ( 9 units): 6 units from DANC 152, 252, 312, or 412 (3 of which must be from DANC 252); Three units from DANC 154, 254, 314, or 414. Theory/Production/Performance (12 units): DANC 120, 131, 220, 442B; 1 unit from DANC 380A, 380B, 480A, 480B, or 495; and one unit from DANC 381A, 381B, 481A, 481B. Electives (3 units): DANC 161, 320, 350, 360, 362, 373I, 442A, 435I, 445, 475.

## GRADUATE PROGRAMS

## Master of Arts in Dance

## General Option (code DANCMA01)

The Master of Arts in Dance is a practice-oriented degree created to serve experienced dance educators, primarily in secondary and community college venues. Its curriculum is designed to broaden and deepen dance knowledge and skills for teaching dance classes and producing dance concerts. This degree elevates an undergraduate teaching credential to graduate status.

Because M.A. candidates are teaching during the academic year, coursework is completed in three intensive, 6 -week consecutive summer sessions in which 9-12 units are earned each summer. No other institution of higher education in the state of California offers such an emphasis at the M.A. level.

## Criteria for Admission into the Program

Candidates must meet the following criteria for entrance into the M.A. in Dance:

1. Prerequisite Courses:

- two courses in dance composition;
- one course in dance history;
- one course in anatomy/kinesiology (must be taken in the past five years);

2. Bachelor's degree from an accredited institution with a degree in dance or a related field;
3. Minimum of 3 years experience teaching dance in a high school with a secondary teaching credential, or minimum of 3 years part-time or full-time experience teaching dance in a community college (exceptions will be considered for extensive part-time employment teaching dance in a high school, or for an exemplary employment history of teaching dance in other venues);
4. Three letters of recommendation, of which one must be from a supervisor or colleague;
5. Movement audition and personal interview;
6. Completion of all application materials.

Admission will be granted to students who show high promise of success in graduate study based on past academic record and record of teaching experience.

## Retention Criteria

1. Maintain a GPA of 3.0 in all graduate work completed at CSULB;
2. Continued satisfactory progress toward degree objectives.
Application materials and application cycles (normally a new class of M.A. candidates begins every three years) is posted at csulb.edu/dance.

## Advancement to Candidacy

Students will be advanced to candidacy upon successful completion of the following:

1. Satisfy the general university requirements for advancement to candidacy and the department's admission criteria;
2. Maintain a 3.0 GPA in all graduate coursework;
3. Fulfill the Graduation Writing Assessment Requirement (GWAR);
4. Complete a minimum of 21 units of coursework;
5. Removal of any incomplete;
6. Satisfactory completion of three artistic endeavors completed during the academic year utilizing student performers from the candidate's school.
7. Filing of the student's graduate program form for the Master of Arts in Dance, signed by the student's graduate advisor, and approved by the Associate Dean for graduate accountability.

## Requirements

1. A minimum of 31 units from

DANC 510A, 510B, 510C, 521, 522, 565, 591A, 591B, 592, 642, and DANC 605.
2. Successful completion of a

Written Comprehensive Exam to be taken after all coursework has been satisfied.

## Master of Fine Arts in Dance (code DANCMF01)

This 60-unit plan of study emphasizes performance and choreography grounded in the modern dance genre, and requires 3 years in residence to complete all course work. The Master of Fine Arts degree is the terminal degree in the studio area of dance. It offers professional training preparatory for careers in performance and choreography, and is highly desired by major dance schools in the United States for university and college teaching. CSULB offers the only MFA in Dance in the California State University system.

The Dance Department has chosen to keep the MFA degree program small and selective in order to provide adequate resources to all students in the degree plan. It is expected that applicants for the MFA in Dance should have some life experiences in the field prior to application; therefore, this would normally preclude a person who recently was awarded an undergraduate degree.

## Criteria for Admission into the Program

Candidates admitted into this program will be selected on the following criteria:

1. meet University admissions requirements;
2. B.A., B.F.A., or M.A. degree in dance or equivalent with a 3.0 GPA in upper division dance courses;
3. professional goals consistent with the plan of study;
4. life experiences in the field;
5. audition in performance and choreography.

All MFA candidates are admitted on a conditional status. Removal of the conditional admit will occur after the following:

1. fulfillment of the Graduation Writing Assessment Requirement (GWAR);
2. completion of all prerequisites;
3. completion of 20 graduate dance units with a GPA of 3.0;
4. Approval of Graduate Advisor.

## Prerequisites

Advanced technique, Dance Composition (3 courses), Dance History (2 courses), Music for Dance, Anatomy/ Kinesiology, Dance Notation or Laban Movement Analysis, Dance Production (2 courses). Candidates may take prerequisite courses along with graduate courses.

When an undergraduate degree is completed in a program which has different requirements than those of the CSULB dance major, additional preparation may be required before the student can be considered for classified status. Up to 24 units from an M.A. degree program may be acceptable, with approval of the graduate advisor.

## Application Requirements

1. A CSULB post-baccalaureate application.
2. The following returned to the CSULB Dance Department:
A. letter of application;
B. resume;
C. 3 letters of reference;
D. VHS video of a recent group choreographic work;
E. 2-page (typed, double spaced) personal statement addressing how graduate work will fulfill intended professional goals.
3. Audition on the CSULB campus to include a technique class and presentation of a 3-5 minute solo composition.

## Advancement to Candidacy

Advancement to candidacy will occur based on the following:

1. unconditional admission status;
2. completion of 30 graduate dance units with a GPA of 3.0;
3. successful choreography produced in a graduate concert;
4. evaluation by graduate faculty of the candidate's satisfactory progress toward the degree;
5. removal of any incompletes.

## Performance/Choreography Concentration

60 units total: 18 units in Technique from DANC 510A, 510B, 512, 514, with a minimum of 12 units from DANC 512 or 510A, and a minimum of 6 units from DANC 514 or 510B; 14-16 units in Theory from DANC 505, 565, 588, 597, 605, 693; 12 units in Choreography from DANC 520 A,B,C,D; 5 units in Performance/Production from DANC 580 A,B, 585 A,B, 592, 595; 6 units from DANC 699; 3-5 units electives.

## Courses (DANC)

## Dance Technique

Note: Dance majors must take technique courses and composition in sequence and screen for level placement in all technique classes. Screening will take place the previous semester and the first day of class. (Non-major technique classes are not screened. They are open to all students.)

## LOWER DIVISION

100. Orientation to Dance (1)

Corequisite: DANC 152 or 154.
Introductory information, degree requirements, career opportunities, current problems and issues in the field. Letter grade only (A-F).

## 101. Introduction to Modern Dance (3)

Prerequisite: Completion of General Education Foundation courses.
Exploration of modern dance concert dance art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in modern dance technique.
Not open for credit to dance majors.

## 102. Introduction to Ballet (3)

Prerequisite: Completion of General Education Foundation courses.
Exploration of ballet as concert dance art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in ballet technique.
Not open for credit to dance majors.

## 103. Introduction to Jazz (3)

Prerequisite: A General Education Foundation course.
Introduction to jazz dance as concert and entertainment art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in jazz technique.
Open only to non-dance majors.

## 104. Introduction to Tap (3)

Prerequisite: A General Education Foundation course.
Introduction to tap as concert and entertainment art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in tap technique.
Open only to non-dance majors.

## 105. Latin Jazz (2)

Basic skills and techniques in Latin Jazz.
Not open for credit to dance majors. May be repeated to a maximum of 4 units. (4 studio hours)

## 106. African Dance (2)

Basic skills and technique in African dance designed to incorporate its role in African culture.
May be repeated to a maximum of 4 units. (4 studio hours)

## 108. Beginning Flamenco (2)

Basic skills and technique in the style of Flamenco dance designed to incorporate its role in Spanish culture.
May be repeated to a maximum of 4 units. (4 studio hours)

## 109. Beginning Hip-Hop (2)

Basic skills and technique in the style of Hip-Hop dance.
May be repeated to a maximum of 4 units. (4 studio hours)

## 110. Viewing Dance (3)

Prerequisite/Corequisite: A General Education Foundation course. Introduction to contemporary dance theater through viewing dance films (modern dance, ballet and ethnic), dance performances, and lecture/discussions on dance.

## 111. Beginning Modern Dance (2)

Basic skills and techniques of modern dance.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 studio hours)

## 112. Intermediate Modern Dance (2)

Prerequisites: DANC 111 or consent of instructor.
Increased skill and techniques of modern dance.
Open to Non-majors. May be repeated to a maximum of 8 units in different semesters. (4 studio hours)

## 113. Beginning Ballet (2)

Basic skills and techniques of ballet.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 studio hours)

## 114. Intermediate Ballet (3)

Prerequisites: DANC 113 or consent of instructor.
Increased skill and techniques of ballet.
Open to Non-majors. May be repeated to a maximum of 12 units in different semesters. (6 studio hours)

## 115. Beginning Jazz (2)

Basic skills and techniques of jazz.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 studio hours)

## 116. Intermediate Jazz (2)

Prerequisite: DANC 115 of consent of instructor.
Basic theory and practice of modern jazz dance.
May be repeated to a maximum of 8 units in different semesters. (4 studio hours)

## 117. Beginning Tap Technique (2)

Basic technique in the tap dance idiom, time steps, stylistic patterns, rhythmic patterns and tap combinations.
May be repeated to a maximum of 4 units. (4 studio hours)

## 120. Improvisation I (2)

Use of improvisation as an introduction to structural form; individual and group problems.
Letter grade only (A-F). (4 studio hours)

## 131. Introduction to Music for Dance (2)

Basic music notation, simple and complex rhythmic patterns, poly-rhythms, skill in the use of percussion instruments and a brief survey of the historical periods of music for dance.
Letter grade only (A-F). (4 studio hours)

## 152. Modern Technique I (3)

Prerequisites: Dance Major or Minor, and placement screening. Intermediate skill in modern technique.
Letter grade only (A-F). Repeatable to a maximum of 12 units in different semesters. (6 studio hours)

## 154. Ballet Technique I (3)

Prerequisites: Dance Major or Minor, and placement screening.
Intermediate skill in ballet technique.
Letter grade only (A-F). Repeatable to a maximum of 12 units in different semesters. (6 studio hours)

## 160. Makeup for Dance (1)

Prerequisite: Dance major or minor.
Designed to develop expertise in proper makeup techniques integral to dance performance. Instruction, exploration, and experimentation with various types of makeup include corrective and fantasy makeup, hair, masks, and makeup rendering.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (2 studio hours)

## 161. Placement for the Dancer (2)

Prerequisites: Open to Dance Majors and Minors.
Application of movement principles and exercises from various sources including anatomy, biomechanics and rehabilitation to improve body alignment, core stabilization, and other aspects of technique in key dance movement patterns.
Letter grade only (A-F). (4 studio hours)

## 179. Exploring Dance: The Language of Movement (3)

Prerequisites: Open to all Liberal Studies Majors, open to others with consent of the instructor based on availability.
Exploration of movement language of dance relating to producing dance; to historical and cultural aspects of dance; and to activities geared to developmental aspects of children, 5-12 years, as outlined in California State Framework for Visual and Performing Arts, K-8. Dance component.
Letter grade only (A-F). (Lecture $1 \mathrm{hr},, 4$ studio hrs.)

## 180A. Dance Performance (1)

Prerequisites: Audition, dance major or minor.
Participation in dance productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units. (3 or more studio hours)
180B. Dance Performance (1)
Prerequisites: Audition, dance major or minor.
Participation in dance productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units. (3 or more studio hours)

## 181A. Dance Production Technical (1)

Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). Repeatable to a maximum of 4 units in different semesters. (2 studio hours)

## 181B. Dance Production Technical (1)

Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). Repeatable to a maximum of 4 units in different semesters. (2 studio hours)

## 214. Ballet Pointe (1)

Prerequisite: Consent of instructor.
Development of the technique of dancing in point shoes.
Letter grade only (A-F). May be repeated for a maximum of 4 units in different semesters. (2 studios hours)

## 216. Intermediate/Advanced Jazz (2)

Prerequisites: DANC 116 or consent of instructor.
Basic theory and practice of modern jazz dance.
May be repeated to a maximum of 8 units in different semesters. (4 studio hours)

## 217. Intermediate Tap Technique (2)

Prerequisite: DANC 117 or placement screening.
Intermediate skills in tap technique concentrating on rhythmic complexity, heightened tempos, and contemporary tap styles.
May be repeated to a maximum of 4 units. ( 4 studio hours)
220. Dance Composition I (3)

Prerequisite: DANC 131.
Theory and practice in the basic elements of dance composition. Letter grade only (A-F). (Lecture 1 hour, 4 studio hours).

## 252. Modern Technique II (3)

Prerequisites: Dance Major or Minor, and placement screening. Intermediate skill in modern technique.
Letter grade only (A-F). May be repeated to a maximum of 12 units. (6 studio hours)

## 254. Ballet Technique II (3)

Prerequisites: Dance Major or Minor, and placement screening. Intermediate skill in ballet technique.
Letter grade only (A-F). May be repeated to a maximum of 12 units. (6 studio hours)

## 260. Functional Anatomy for the Dancer (3)

Prerequisites: DANC 161or consent of the instructor.
A thorough examination of major muscles, bones and joints as they relate to human movement. Performance of anatomical analyses of common conditioning exercises and key dance movements.
Letter grade only (A-F).
262. Pilates I (3)

Prerequisites: DANC 260 or BIOL 208.
Beginning-intermediate level Pilates-based program, emphasizing the use of the Pilates apparatus, designed to enhance dance performance, movement coordination and physical conditioning.
Letter grade only (A-F). (6 studio hours)
295. Repertory (1-3)

Prerequisites: Audition, dance major.
Experience in rehearsal and performance practice in an intensive format.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (2-6 studio hours)

## UPPER DIVISION

## 312. Modern Technique III (3)

Prerequisites: Dance major or minor or placement screening.
For undergraduate dance majors in the intermediate/advanced skill of modern dance techniques.
Letter grade only (A-F). May be repeated to a maximum of 12 units in different semesters. (6 studio hours)

## 313. Modern Dance Workshop (1-3)

Prerequisites: Dance major or minor or consent of instructor.
Exploration of the techniques of modern dance.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters. (2-6 studio hours).

## 314. Ballet Technique III (3)

Prerequisites: Dance Major or Minor, and placement screening.
Advanced/intermediate skill in ballet technique.
Letter grade only (A-F). May be repeated for a maximum of 12 units in different semesters. (6 studio hours)

## 315. Ballet Workshop (1-3)

Prerequisites: Dance major and minor or consent of instructor.
Exploration of the techniques of ballet.
Letter grade only (A-F) May be repeated for a maximum of 6 units in different semesters. (2-6 studio hours)

## 316. Advanced Jazz (2)

Prerequisites: DANC 216 or consent of instructor.
Advanced theory and practice of jazz technique.
May be repeated to a maximum of 8 units. (4 studio hours)

## 317. Advanced Tap Technique (2)

Prerequisites: DANC 117 and 217 or consent of instructor.
Advanced skills in tap technique concentrating on rhythmic complexity, heightened tempos, improvisational work, and contemporary tap styles.
May be repeated to a maximum of 8 units in different semesters. (4 studio hours)

## *318. World Dance (1-3)

Theory and technique of various world forms.
(2 studio hours per unit.)
319. Dance Laboratory (1-3)

Participation in dance technique projects. Consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 8 units. (2 studio hours per unit.)
320. Dance Composition II (3)

Prerequisite: DANC 220.
Development of theme and style in small group studies.
Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)
321. Directed Choreography (1-3)

Prerequisites: Consent of instructor.
Independent choreographic projects finalized in a performance venue under supervision of a faculty member.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (2-6 studio hours)

## 331. Music for Dance (3)

Prerequisite: DANC 131 and 220.
Theoretical and practical analyses of music form and style as appropriate for use in dance classes and performance. Includes a brief survey of historical periods and the development of music repertoire for dance.
Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)
350. Dance Notation I (3)

Prerequisite: DANC 131.
Theory and practice of notating movement through Labanotation. Letter grade only (A-F).
360./560. Prevention and Care of Dance Injuries (3)

Prerequisite: DANC 260 or consent of instructor.
Study principles to help dancerunderstand, prevent and recover from common dance injuries. Assessment and development of muscular strength/endurance, flexibility, cardiovascular endurance, body composition/nutrition and proprioception as they relate to common injuries and improved dance performance.
Letter grade only (A-F).

## 362. Pilates II (2)

Prerequisites: DANC 262 or consent of instructor.
Intermediate-advanced level. Pilates-based conditioning program which employs a series of exercises designed to enhance dance performance and prevent injury, utilizing apparatus based on designs of Joseph Pilates, exercise balls, free weights and body for resistance.
Letter grade only (A-F). (4 studio hours)

## 370./570. Video for Dance (2)

Skills and techniques in analyzing, documenting, and editing dance performances and rehearsals; use and interface of the digital camera. Examines the field of dance documentation and the editing and creative concepts most associated with dance for the camera.
Letter grade only (A-F). (Lecture 1 hour, 2 studio hours).

## 373I. Nonverbal Communication: Interaction of Mind and Body (3)

Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration course(s), and upper division status.
History and theories of the development of mind/body integration. Enhancement of personal and interpersonal relations through lectures, discussion, films and movement experiences. Analysis and synthesis of the interdependence of the psychological and physical processes in nonverbal communication.
Same course as ED P 3731.

## 380A,B. Dance Performance $(1,1)$

Prerequisite: Open to Dance Majors and Minors only.
Participation as a performer and/or choreographer in Dance Department productions. Concert participation is by audition only.
A combination of 380A,B and 480A,B may be repeated to a maximum of 8 units. (3 or more studio hours)
381A. Dance Production Technical (1)
Prerequisites: Open to dance majors and minors.
Technical production participation in Dance Department sponsored productions.
A combination of 381A,B and 481A,B. Letter grade only (A-F). May be repeated for a total of 8 units in different semesters. (2 studio hours per unit)

## 381B. Dance Production Technical (1)

Prerequisites: Open to dance majors and minors.
Technical production participation in Dance Department sponsored productions.
A combination of 381A,B and 481A,B. Letter grade only (A-F). May be repeated for a total of 8 units in different semesters (2 studio hours per unit)

## 398. Fieldwork in Dance Elementary (1-3)

Prerequisite: DANC 475.
Supervised teaching experience in dance in an off-campus setting. Practical experience working with students in kindergarten through 6 th grade.
Credit/No Credit grading only. May be repeated to a maximum of 6 units.

## 399. Fieldwork in Dance Secondary (1-3)

Prerequisite: DANC 470.
Supervised teaching experience in dance in an off-campus setting. Practical experience working with students in grades 7 through 12 or community college.
Credit/No Credit grading only. May be repeated to a maximum of 6 units.

## 412. Modern Technique IV (3)

Prerequisites: Dance Major or Minor, and placement screening. Advanced skill in modern dance technique.
Letter grade only (A-F). May be repeated to a maximum of 12 units. (6 studio hours)

## 414. Ballet Technique IV (3)

Prerequisites: Dance Major or Minor, and placement screening. Advanced skills in the techniques of ballet.
Letter grade only (A-F). May be repeated to a maximum of 12 units in different semesters. (6 studio hours).

## *416. Ballet Variations (2)

Prerequisites: DANC 254 or consent of instructor.
The interpretation and analysis of style, technique, musicality, content, and phrasing in classical and modern ballet variations.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters (4 studio hours)

## 420. Advanced Composition (3)

Prerequisite: DANC 320 or consent of instructor.
Approaches to the development of choreographic materials of extended structure and content.
Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)
*422. Improvisation II (1-3)
Prerequisites: DANC 220 or consent of instructor.
Development of the individual performer's improvisational skills, exploration of a wide range of subject matter and styles, study of techniques of structuring improvisations.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters. (2-6 studio hours)

## 426. Intermediate/Advanced Ballet Pointe (1)

Prerequisites: DANC 214 of consent of instructor.
Intermediate skill development in ballet pointe technique.
Letter grade only (A-F). May be repeated for a maximum of 4 units in different semesters. (2 studio hours)

## 435I. Dance in Film (3)

Prerequisites: Completion of GE Foundation requirements and one or more Exploration course(s), and upper division status.
Examination of the relationship between dance and film; study of historical and theoretical connections placed in both aesthetic and cultural contexts.

## 442A. History of Dance to 1900 (3)

Prerequisites: Fulfillment of the GWAR.
Development of dance from Aboriginal to 20th Century. Letter grade only (A-F).

## 442B. Twentieth Century Dance History (3)

Prerequisites: Fulfillment of the GWAR.
Development of Ballet and Modern dance in the 20th Century. Letter grade only (A-F).

## 445./545. Movement Analysis (3)

Prerequisites: Open to Dance Majors and Minors only.
Study of the principles underlying movement and their application to all areas of movement study.
Letter grade only (A-F). (Lecture 2 hours, 2 studio hours)
470. Principles of Teaching Dance Technique (3)

Prerequisites: DANC 312, or consent of instructor.
Methods of teaching dance technique for studios, recreation departments, companies, secondary schools, colleges, and universities. Emphasis on teaching teenagers and adult beginners. Letter grade only (A-F). (Lecture 2 hours, 2 studio hours)

## 475. Dance for Children (3)

Prerequisites: DANC 120, 312, or consent of instructor.
Practical experience in teaching creative dance to children. Includes improvisational approaches to teaching elements of dance, exploration and practical implementation of teaching and learning theories, and incorporation of the California Visual and Arts dance standards into elementary school curriculum. Letter grade only (A-F).

## 480A,B. Dance Performance $(1,1)$

Prerequisite: Open to Dance Majors and Minors only.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production. Most concert participation is by audition only.
A combination of 380A,B and 480A,B. May be repeated to a total of 8 units. (3 or more studio hours)

## 481A. Dance Production-Technical (1)

Prerequisites: Open to dance majors or minors.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated for a total of 8 units in different semesters. (2 studio hours per unit)

## 481B. Dance Production-Technical (1)

Prerequisites: Open to dance majors or minors.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated for a total of 8 units in different semesters. (2 studio hours per unit)

## *485. Contemporary Dance and the Fine Arts (3)

Prerequisites: DANC 331 or consent of instructor.
Advanced theory and practice relating contemporary dance to the fine arts.
Letter grade only (A-F).
488. Organization of Dance Production (3)

Prerequisite or Corequisite: DANC 312.
Analysis and practice in the production elements of dance concerts. Course is coordinated with a department concert.
Letter grade only (A-F).
489. Special Topics in Dance (1-3)

Prerequisite: Consent of instructor.
Topics of current interest in the field of dance selected for special presentation and development.
Topics will be announced in the Schedule of Classes. May be repeated to a total of 6 units. (2-6 studio hours).

## 490. Special Topics in Dance (1-3)

Prerequisite: Consent of instructor.
Topics of current interest in the field of dance selected for special presentation and development.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 12 units with different topics, or consent of department chair. (2-6 studio hours)

## *491A. Design for Dance Lighting (3)

Prerequisites: Upper division status or consent of instructor. Techniques of designing lighting for dance. Practical applications include designing and executing lighting for dance for concerts in various settings.
Letter grade only (A-F). (6 studio hours)

## *491B. Design for Dance Costuming (3)

Prerequisites: Upper division status or consent of instructor. Designing and constructing costumes for dance.
(6 studio hours)

## 493. Computers for Dance (3)

Prerequisites: Dance major or minor.
Theory and practice in the basic techniques of computer usage in the art form of dance.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
495. Repertory (1-3)

Prerequisite: Audition.
Students learn and perform works of distinguished choreographers. Leads to concert performance.
May be repeated to a maximum of 18 units provided it is with a different instructor each time. (2-6 studio hours)

## 499. Directed Studies in Dance (1-3)

Prerequisite: Consent of instructor.
Independent projects and research of advanced nature in any area of dance.
Letter grade only (A-F). Course may be repeated for a maximum of 12 units in different semesters. (2-6 studio hours)

## GRADUATE LEVEL

## 505. Seminar in Dance Methodology (3)

Prerequisite: Acceptance into the MA or MFA program or consent of advisor.
Discussion specific to the teaching of dance in preparation for teaching in secondary and post-secondary education.
Letter grade only (A-F).
510A,B,C,D. Technique Laboratory (1-3, 1-3, 1-3, 1-3)
MFA Choreography option students are required to take a technique class each semester. By registering for DANC 510, each will be assigned to an appropriate level technique class. Additional work will be required as appropriate to a graduate level course.
May be repeated to a maximum of 6 units. (2-6 studio hours)

## 512. Advanced Modern Technique (3)

Prerequisites: Placement screening.
For graduate dance majors in the advanced skill of modern dance techniques.
Letter grade only (A-F). May be repeated to a maximum of 18 units. (6 studio hours)

## 514. Advanced Ballet Technique (3)

Graduate level skills in ballet technique.
Letter grade only (A-F). May be repeated to a maximum of 12 units. (4 studio hours)

## 518. World Dance II (1-3)

For graduate dance majors to learn the techniques and styles of ethnic dance forms. A dancer from the culture will teach the class. A different culture will be studied each semester.
Letter grade only (A-F). May be repeated to a maximum of 8 units.
(2 studio hours per unit.)
520A. Choreography A (3)
Prerequisite: Admission into the MFA degree program.
Will center on development of advanced approached to choreographic materials and techniques. It will emphasize outlining of artistic ideas in written form before physical realization, and will emphasize composing and shaping chorography based on clearly stated concepts.
Letter grade only (A-F). (4 hours activity; 1 hour discussion)
520B. Choreography B (3)
Prerequisite: Admission into the MFA program for dance.
Methods and practice of developing choreography utilizing music/ composers as the basis for compositional exploration.
Letter grade only (A-F). (4 hours activity; 1 hour discussion)
520C. Choreography C (3)
Prerequisite: Admission into the M.F.A. program.
Advanced study of choreographic methods concentrating on development of choreography inspired by, and relating to, other art forms. Compositional studies geared to traditional theatrical venues and alternate performing venues will be explored. Letter grade only (A-F). (4 hours activity; 1 hour discussion).

## 520D. Choreography D (3)

Prerequisite: Admission into the M.F.A. program.
Concentrates on development of dance choreography designed for presentation through video, and video used as an integrated/ supporting form in live performance. Emphasizes skills and
techniques in the exploration of dance documentation and the shooting and editing of digital video.
Letter grade only (A-F). (4 hours activity; 1 hour discussion).
520E. Choreography E (2)
Prerequisites: DANC 520D or consent of instructor.
Methods and practice of developing choreography utilizing an integration of related art forms as basis for compositional exploration. Letter grade only (A-F). (4 studio hours)

## 521. Dance Composition III (3)

Prerequisite: Admission to the MA degree program in Dance.
Methods and practice of developing choreography as related to the high school and community college setting.
Letter grade only (A-F).

## 522. Composition IV (3)

Prerequisite: Admission into the MA degree program.
Methods and practice in developing more advanced choreographic studies related to a high school or community college setting.
Letter grade only (A-F). (4 studio hours; 1 lecture hour).

## 531. Music for Dance II (1-3)

Prerequisite: DANC 331 or equivalent.
Provides dance students an opportunity for advanced, in-depth study of musical form and style as it applies to dance.
Letter grade only (A-F).

## 545./445. Movement Analysis (3)

Prerequisites: Open to Dance Majors and Minors only.
Study of the principles underlying movement and their application to all areas of movement study.
Letter grade only (A-F). (Lecture 2 hours, 2 studio hours)

## 560./360. Prevention and Care of Dance Injuries (3)

Prerequisite: DANC 260 or consent of instructor.
Study of key principles to help dancer better understand, prevent and recover from common dance injuries. Assessment and development of muscular strength/endurance, flexibility, cardiovascular endurance, body composition/nutrition and proprioception as they relate to common injuries and improved dance performance.
Letter grade only (A-F).

## 565. Dance Science as Related to Teaching Technique (3)

Prerequisite: DANC 260 and 505, or consent of instructor.
Application of anatomical principles, scientific principles of training, and biomechanical principles to more effectively design and teach dance technique classes.
Letter grade only (A-F).

## 570./370. Video for Dance (2)

Skills and techniques in analyzing, documenting, and editing dance performances and rehearsals; use and interface of the digital camera. Examines field of dance documentation and editing and creative concepts most associated with dance for the camera.
Letter grade only (A-F). (Lecture 1 hour, 2 studio hours).

## 580A,B. Dance Performance (1)

Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (3 or more studio hours)

## 585A,B. Dance Performance (1)

Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (3 or more studio hours)

## 588. Seminar in Dance Management (2)

Techniques and practices in producing and promoting dance performances in fixed sites and in touring venues relevant to the production of MFA thesis concerts and to venues outside the University. For graduate students with prior experience in the field. Letter grade only (A-F).

## 590. Special Topics (1-3)

Prerequisite: Acceptance into MFA program in dance.
Topics of current interest to graduate students in dance will be selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

## 591A. Advanced Design for Dance Lighting (3)

Provides students with advanced work in design lighting for dance, and offers the in-depth technical knowledge and practical experience necessary to the execution of complete lighting plots. Letter grade only (A-F). (6 studio hours)

## 591B. Advanced Design for Dance Costuming (3)

Provides graduate students with advanced coursework in designing costumes for dance, and with skills necessary to execute the designs.
Letter grade only (A-F). (6 studio hours)

## 592. Special Topics (1-3)

Prerequisite: Acceptance into MFA program in dance.
Topics of current interest to graduate students in dance will be selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. (2-6 studio hours)

## 595. Repertory (1-3)

## Prerequisite: Audition.

For graduate dance majors to learn more advanced works from the repertoire of noted choreographers or to have new works created on the students by distinguished choreographers.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (2-6 studio hours)

## 597. Criticism and Analysis of Dance (3)

Prerequisite: Acceptance into the graduate degree programs in dance.
Seminar introducing students to aesthetic and critical discourses within dance studies. Readings in dance criticism, aesthetics, and theory will be discussed in relationship to contemporary and historical dance works. Requires extensive viewing of and writing about choreographic works.
Letter grade only (A-F).

## 599. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Individual research or project under the guidance of a faculty member.
May be repeated to a maximum of 12 units in different semesters. (2-6 studio hours) Letter grade only (A-F).

## 605. Seminar in Dance (1-3)

Prerequisites: Acceptance into the MA or MFA in Dance.
Will be conducted as a seminar. Literature, including research appropriate to the particular topic of the course, will be examined and discussed.
Letter grade only (A-F).

## 642. Seminar in Dance History (3)

Intensive study of selected topics in the History of Dance.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

## 693. Teaching Internship (1-3)

Prerequisite: Acceptance into the M.F.A. program in Dance.
Opportunity to work with full-time Dance faculty member in course preparation and instruction in one area of dance theory.
Letter grade only (A-F).

## 698. Thesis/Project (1-6)

Prerequisite: Advancement to candidacy.
Planning, preparation, and completion of a thesis/project in dance for the M.A. degree.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 699. Thesis/Project (1-6)

Prerequisite: Advancement to Candidacy.
Planning, preparation, and completion of thesis/project in dance for the M.F.A. degree.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.

## Department Chair

## Tor Hovind

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Faculty

## Professors

Mamdouh Fayek (Emeritus), Michael J. Kammermeyer (Emeritus), Charles Leinbach, Bhupendra K. Singhal, Jerry W. Yates (Emeritus)

## Assistant Professors

Dorothy Ottolia, José Rivera-Chang, David Teubner, Khoi Vo

## Administrative Coordinator

Allison Ohanian

The Department of Design was established to provide an administrative and academic framework for professional design training in the fields of Industrial Design, and Interior Architectural Design. The degree programs that may be pursued are the Bachelor of Fine Arts, the Master of Arts, the Master of Fine Arts, and the Bachelor of Science, offered in the Industrial Design curriculum.

The faculty of Design believe that an appropriate education for the professional designer must include a comprehensive body of technical knowledge. Such knowledge should include historical sources, tools, techniques, and materials; a methodology for encouraging the creative process; and the attainment of the requisite level of skill to express visual ideas with clarity. While being fully equipped to meet the objectives of the marketplace, today's designer must also achieve sufficient educational breadth to adapt successfully to the varying demands imposed on design work by economic, social, and psychological factors.

The academic programs of the Department of Design have been accredited by the National Association of Schools of Art and Design (National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700). Student demand for these programs is high. Requirements for admission and degree requirements are given below.

## UNDERGRADUATE PROGRAMS

## Bachelor of Fine Arts in Art

The Bachelor of Fine Arts in Art degree is offered as preparation for the student who will eventually seek the Master's degree or a position as a professional designer. The BFA program is a rigorous and competitive one. One hundred and thirty-two semester units are required for the degree, including 81 units for the major. Portfolio review is required for admission to the professional BFA program. Portfolios are reviewed in the spring semester for fall admission to junior standing and the upper division program.

## Option in Interior Design (code ART_BF09) (132 units)

## Requirements

Lower Division: AH 111A, 111B; DESN 120A, 120B, 132A, 132B, 141, 142, 151, 232, 241, 242, 243, 244, 245, 246.

Upper Division: DESN 341A, 341B, 342, 343, 346, 367, $369,440,441 \mathrm{~A}, 441 \mathrm{~B}$; eight units of design/art electives, outside of Interior Design approved by the major adviser. Approved lower and upper division electives to total 132 units.

Students must achieve " $C$ " or better in each required design course to progress in the sequence of study.

## Bachelor of Science in Industrial Design (code DESNBS01) (132 units)

This degree program is concerned with the relationship between technology and the visual arts. It includes background courses in engineering and sciences. Students must achieve " $C$ " or better in each required design course to progress in the sequence of study. A grade of " $B$ " or better in DESN 280 and consent of instructor is required in order to enroll in DESN 331A.

## Prerequisites

Lower Division: PHYS 100A/B.

## Requirements

Lower Division: AH 115B, 115C; DESN 120A, 120B, 132A, 132B, 150, 151, 154, 156, 232, 254, 256, 280. A grade of " $B$ " or better in DESN 280 and consent of instructor is required in order to enroll in DESN 331A.

Upper Division: DESN 331A, 331B, 333A, 333B, 368, $431 \mathrm{~A}, 431 \mathrm{~B}$; twelve units of design/art electives, nine units of which must be outside of Industrial Design approved by the major adviser. Approved lower and upper division electives to total 132 units.

Students must achieve "C" or better in each required design course to progress in the sequence of study.

## Master of Arts in Art (code ART_MA01)

The Design Department Master of Arts in Art program provides professional specializations within the degree: Industrial Design, Interior Design, and Display/Exhibition Design.

## Prerequisites

1. A bachelor's degree from an accredited institution with a minimum of 24 upper division units in design/art comparable to those required of a major in Design at this University;
2. Completion of 16 units minimum of upper division course work in the area of specialization;
3. Completion of 12 units of design/ art history, six units of which must be upper division;
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
5. Presentation, to the student's specialization faculty, of a portfolio of representative studio work with emphasis in the area of specialization. Reviews are completed by the first week in October for the following spring semester, by the first week in March for the following fall semester;
6. A GPA of 3.0 or better in upper division design/art course work. Students who do not meet the minimum 3.0 GPA within the required 24 units as an undergraduate may count units taken as a post-baccalaureate student to meet this GPA. Course work taken as a graduate to validate undergraduate preparation may not be used to satisfy any requirement in the student's MA program.
All prerequisites must be fulfilled before a student can become classified in a graduate degree program.

## Advancement to Candidacy Requirements

1. Classified graduate standing. Completion of all prerequisites;
2. A graduate program approved by the student's committee, the Graduate Advisor, the Design Department Chairman, and the Dean of the College of the Arts;
3. A GPA of 3.0 or higher in all work undertaken for the program;
4. The removal of any Incompletes;
5. Successful completion of the Advancement Review;

## Requirements

Completion of all requirements established by the student's graduate advisory committee, including:

1. A minimum of 33 units of approved upper division and graduate-level courses; a minimum of 15 units at the 500- and 600-level; a minimum of 20 units in the specialization;
2. A studio thesis project. All studio projects must be formally exhibited (DESN 692) with a written Artists Statement.

## GRADUATE PROGRAMS

## Master of Fine Arts in Art (code ART_MF01)

The Design Department Master of Fine Arts degree program provides specializations in: interior design and display/ exhibition design.

## Prerequisites

1. A bachelor's degree from an accredited institution with a minimum of 24 units of upper division design course work comparable to those required for the BFA in Design at this University;
2. Completion of a minimum of 18 units of upper division course work in the area of specialization for the proposed MFA;
3. Completion of a minimum of 12 units of design/art history, six units of which must be upper division;
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
5. Presentation, to the student's specialization faculty, of a portfolio of representative studio work with emphasis in the area of specialization. Reviews are completed by the first week in October for the following spring semester, by the first week in March for the following fall semester. (See MA and MFA procedures, "Screening for Acceptance" for details);
6. A GPA of 3.0 or better in upper division design/art course work. Students who do not meet the minimum 3.0 GPA within the required 24 units as an undergraduate may count units taken as a post-baccalaureate student to meet this GPA. Course work taken as a graduate to validate undergraduate preparation may not be used to satisfy any requirement in the student's MA program.
All prerequisites must be fulfilled before a student can become classified in a graduate degree program.

## Advancement to Candidacy Requirements

1. Classified Graduate standing. Completion of all prerequisites;
2. A graduate program approved by the student's committee, the Graduate Advisor, the Design Department Chairman, and the Dean of the College of the Arts;
3. A GPA of 3.0 or higher in all work undertaken for the program;
4. The removal of any Incompletes;
5. Successful completion of the Advancement Review;

## Requirements

A minimum of 60 units of approved coursework, at least 60 percent of which must be at the 500- and 600-levels, including at least:

1. Thirty-six 36 units in the area of specialization. Thirty of these units must be in the 500- and 600-levels and must include 690A, 690B, 692, and 699;
2. Six units of approved upper-division or graduate coursework outside of design;
3. A comprehensive review, administered by the student's graduate advisory committee, after the completion of 21 units of studio coursework. This review is to determine whether the candidate will continue in the MFA program;
4. A minimum of 6 units of approved upper division or graduate design/ art history beyond that required as prerequisite work;
5. Twelve units of upper division or graduate level elective coursework in design;
6. A studio project DESN 699), exhibited and described in a studio thesis (DESN 692).

## MFA Transfer and Residence Policy

1. Transfer credit allowable on the MFA may not exceed 24 units;
2. MFA candidates must complete a minimum of 18 specialized units with graduate numbers in residence;
3. All transferred credit used in the MFA must be determined by the student's graduate committee and approved by the department Graduate Advisor;
4. The CSULB Master of Arts degree may be counted for a maximum of 24 units ( 18 in specialization) toward the MFA degree.

## Courses (DESN)

## LOWER DIVISION

## 120A-B. Fundamentals of Design (3-3)

Prerequisites: for 120A: none; for 120B: 120A.
Systematic approach to process of designing two, threedimensional objects including color theory, surface, volume investigation.
Letter grade only (A-F). (6 hours laboratory)
132A-B. Perspective and Rendering Systems (3-3)
Prerequisites: for 132A: none; for 132B: 132A.
Fundamentals of drawing, perspective, rendering techniques used in the design disciplines for accurate dramatic presentations.
Letter grade only (A-F). (6 hours laboratory.)
141. Interior/Architectural Drafting (3)

Architectural drafting graphic techniques used in light framing, commercial construction with emphasis on interiors.
(6 hours laboratory)

## 142. Beginning Space Planning (3)

Prerequisites: DESN 141.
Functional, human, aesthetic factors of space planning for interiors.
Letter grade only (A-F). (Laboratory 6 hours)
150. Design Drafting (3)

Introduction to manual, computer aided drafting. Includes descriptive geometry; mechanism sketching; orthographic; isometric drafting; blueprint reading, printing, plotting.
Letter grade only (A-F). (6 hours laboratory)
151. Industrial Design Materials and Tools (2)

Hands-on experience with wood, metal, plastic materials, the technical tools for creating form. Includes appropriate safety instruction for use of power equipment.
Letter grade only (A-F). (4 hours laboratory)
154. Modeling and Prototyping Techniques (2)

Prerequisites: DESN 150, 151.
Materials, processes, techniques for creating mock-ups, models, prototypes used by industrial designers.
Letter grade only (A-F). (4 hours laboratory).

## 156. 3D Computer-Aided Design (3)

Prerequisites: DESN 150.
Computer aided modeling strategies techniques for depicting three-dimensional surfaces, solids.
Letter grade only (A-F). (6 hours laboratory)
232. Visualization Techniques (3)

Prerequisites: DESN 120B, 132B, consent of instructor.
Introduction to technical drawing, visual presentation of concepts using communication techniques employed by professional design studios.
Letter grade only (A-F). May be repeated to a maximum of 9 units. (6 hours laboratory)

## 241. Design Drawing and Processes (3)

Prerequisites: DESN 120B, 132B, 142, or consent of instructor. Introduction to Design drawing, design processes. sketching, solving limited scale interior, architectural problems.
Letter grade only (A-F). (Laboratory 6 hours.)
242. Interior/Architectural Model Building (3)

Prerequisites: DESN 120B, 132B, 142.
Building of interior/architectural models for construction, design analysis, presentation.
Letter grade only (A-F). (Laboratory 6 hours.)
243. Materials of Interiors (3)

Prerequisites: DESN 120B, 132B, or consent of instructor.
Materials, processes, resources as they relate to interior architecture. Examination of technology, application through lecture, demonstration, field trips.
244. Lighting Design for Interior Architecture (3) Prerequisites: DESN 120B, 132B, 142.
Use of conceptual practical design problems. Nature, properties of light, color are studied.
Letter grade only (A-F). (Laboratory 6 hours.)

## 245. Building Systems for Interior Architecture (3)

Prerequisites: DESN 142.
Survey of design implications of typical building systems (structural, mechanical, plumbing, electrical, acoustical, energy conservation) as influences on interior architectural design. Letter grade only (A-F).
246. Computer-aided Drafting (3)

Prerequisite: DESN 141.
Principles, methods of computer graphic applications utilizing AutoCad. Computer drafting of commercial, residential projects.
May be repeated to a maximum of 6 units.
254. Production Materials and Technical Processes (3)

Prerequisites: DESN 150, 151, 154, 156.
Study of production processes, industrial materials utilized in the manufacturing of products. Includes introduction to rapid prototyping.
Letter grade only (A-F). (6 hours laboratory)
256. 2D Computer-Aided Design (2)

Prerequisites: DESN 150.
Computer aided drawing, rendering, and image manipulation for presentation authoring. Includes lighting and animation techniques.
Letter grade only (A-F). (4 hours laboratory)
280. Industrial Design Processes (3)

Prerequisites: DESN 120B, 132B, 156, 232, 254, 256.
Introductory course in the design processes utilized by industrial designers for product development.
Letter grade only (A-F). (6 hours laboratory)

## 290. Design Methods and Practice (3)

Prerequisites: DESN 150, 151.
Survey of design office procedures, methods, professional practices. Includes creative problem solving, market analysis, management.
Letter grade only (A-F). (6 hours laboratory)

## UPPER DIVISION

## *331A-B. Industrial Design (3-3)

Prerequisites: for DESN 331A: Completion of DESN 280 with a " B " or better and consent of instructor; for DESN 331B: DESN 331A.
Planning design of useful products for industrial production.
(6 hours laboratory.)
*333A-B. Industrial Design Methodology (3-3)
Prerequisites: for 333A: Consent of instructor; for 333B: DESN 333A or consent of instructor.
Examination of methods, techniques in design problem solving.
(6 hours laboratory.)
*341A-B. Interior Design (3-3)
Prerequisites: for 341A: DESN 232, 243; ART 115B, 115C; for 341B: DESN 341A.

Design of interior environments emphasizing interrelationships between interior space, architectural form, human factors in design. (6 hours laboratory.)

## 342. Interior/Architectural Presentations (3)

Prerequisites: DESN 232, 241, and Junior standing in the professional program.
Exploring, using various techniques, methods of visually, verbally presenting design concepts, ideas, finished projects.
Letter grade only (A-F). (Laboratory 6 hours.)

## 343. Advanced Drafting and Detailing (3)

Prerequisites: DESN 242, 245, and Junior standing in the professional program.
Advanced drafting, detailing skills of architectural interior design related to light frame, other construction processes.

Letter grade only (A-F). (Laboratory 6 hours.)
*344A-B. Display and Exhibition Design (3-3)
Prerequisites: ART 115B, 115C; DESN 120B, 232 or consent of instructor.
Use of materials, processes, design concepts in planning preparation of displays, exhibits.
(6 hours lab.)

## 346. Computer-Aided Design - 3D Modeling (3)

Prerequisites: DESN 132B, 242, 246.
Computer-aided drawing, rendering, 3D drawing, solid modeling. Includes lighting, animation techniques for spatial/architectural modeling, design.
May be repeated to a maximum of 6 units.
351A. Process of Architectural/Interior Lighting Design (3)
Prerequisites: DESN 232, 142, 244 or 254; or consent of instructor. Exploration of processes used to conceptualize, present, develop architectural lighting designs.
Letter grade only (A-F). (Laboratory)

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## 367. History and Theory of Architecture (3)

Prerequisite: Completion of GE Foundation requirements.
Evolution of architecture relative to human need to shape environment in accordance with governing concerns of specific periods in history.
Not open for credit to students with credit in ART 417.

## 368. History and Theory of Design (3)

Prerequisite: Completion of GE Foundation requirements.
Development of design as an independent creative activity including a consideration of both pre-technological and technological culture. Not open for credit to students with credit in ART 418.
369. History of Furniture and Decorative Arts (3)

Study of the history of furniture, finish materials, accessories. Letter grade only (A-F). (Lecture-discussion 3 hrs.)
370. Design in Contemporary Society (3)

Prerequisite: Completion of GE Foundation requirements.
Discover principles of design by examining human relationship to built environment through a sequence of scales: from organization of cities, to public architecture, housing, design of furniture, products. Emphasis will be on experiencing design through lecture, lab, field observations, projects.
Letter grade only (A-F).
*431A-B. Advanced Industrial Design (4-4)
Prerequisites: DESN 331B, PHYS 100AB or consent of instructor.
Advanced planning, design of projects in area of mass produced objects, packaging, traffic, transportation, mechanical design, shelter.
(8 hours laboratory.)
*432. Advanced Rapid Visualization (3)
Prerequisites: DESN 232 or consent of instructor.
Advanced idea generation, visualization for designers.
(6 hours laboratory)
*435A. Furniture Design (3)
Prerequisites: DESN 232, 331A, 341A, or consent of instructor.
Design of public, private interior furnishings with in depth study of potentials of contemporary production methods, materials.
(6 hours laboratory.)

## 435B. Advanced Furniture Design (3)

Prerequisites: DESN 435A, or consent of instructor.
Continuation of DESN 435A. Projects focus upon research, impact of human factors on design of furniture.
Letter grade only (A-F).

## 440. Professional Practices for Interior Architecture (3)

Prerequisites: Consent of instructor.
Examination of professional practices for commercial (corporate) institutional/public interior architectural design.
Letter grade only (A-F).
*441A-B. Advanced Interior Design (4-4)
Prerequisites: DESN 341B, 343 or consent of instructor.
Advanced interior design, space planning problems emphasizing relationships between built environment, human factors in design. Letter grade only (A-F). (6 hours laboratory.)
*442G. Internship in Industrial Design (3)
Prerequisite: Consent of instructor.
Student internship experience in selected industrial design offices. Opportunity to work under supervision of industrial designers in field to expand student understanding of complexities, discipline, challenges in practice of industrial design.
May be repeated to a maximum of 6 units. (6 hours laboratory.)

## *442H. Internship in Interior Design (3)

Prerequisite: Consent of instructor.
Student internship experience in selected interior design offices. An opportunity to work under supervision of interior designers, architects in field to expand student understanding of complexities, discipline, challenges in practice of interior design.
Limited to six units in one semester and a total of nine units. (6 hours laboratory.)

## *490. Special Topics in Design (1-3)

Prerequisite: Consent of instructor.
Special topics of current interest in design will be selected for intensive study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 12 units with different topics. (2-6 hours lab.)

## *495. Field Studies in Design (1-6)

An opportunity to study design movements, objects, theories, techniques at appropriate off-campus locations.
Up to 6 units of cumulative credit may be earned in DESN 495.

## *499C. Special Studies in Display and Exhibition Design

 (3)Prerequisite: Consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in display, exhibition design.
Limited to 6 units in one semester and a total of nine units. (6 hours laboratory.)
*499G. Special Studies in Industrial Design (3)
Prerequisite: Consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in industrial design.
Limited to 6 units in one semester and a total of 9 units. (6 hrs laboratory.)
*499H. Special Studies in Interior Design (3)
Prerequisite: Consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in interior design.
Limited to 6 units in one semester and a total of 9 units. (6 hours laboratory.)

## GRADUATE LEVEL

590. Special Problems in Design (1-3)

Prerequisite: Consent of instructor.
Special problems of current interest in design will be selected for intensive study.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics. (2-6 hours laboratory.)
599. Studio Problems in Design (3)

Prerequisite: Consent of instructor.
Advanced individual graduate projects, with faculty supervision, in an area of design specialization.
Areas will be designated by letter at the time of registration. Letter grade only (A-F).Limited to six units in one semester and a total of 12 units in any one area. (6 hours laboratory.)
C. Display and Exhibition
G. Industrial Design
H. Interior Design

## 690A. Seminar in Design (3)

Prerequisite: Consent of instructor.
Selected reading and writing concerning topics relevant to student's specific disciplines in design with opportunity for interdisciplinary discussion.
Letter grade only (A-F).

## 690B. Seminar in Design (3)

Prerequisite: Consent of instructor.
Professional preparation for designers stressing practical concerns as well as current trends in design practices, theory and criticism. Letter grade only (A-F).

## 692. Public Exhibition (2-3)

Prerequisite: Consent of instructor.
Planning, preparation, administration of a public exhibition of creative work related to the design field.
Two units only for all M.A. candidates. Three units only for all M.F.A. candidates. Course will result in a public exhibition by each M.A. and M.F.A. candidate. Letter grade only (A-F). (6 hours or more laboratory.)
694. Directed Studies Studio (1-3)

Prerequisite: Consent of instructor.
Independent studies in creative studio.
Letter grade only (A-F).

## 695. Field Problems in Design (1-6)

Opportunity to study design movements, objects, theories, techniques or literature at appropriate off-campus locations.
Up to 6 units of cumulative credit may be earned in DESN 695.

## 697. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent studies in technical, historical aspects of design. Letter grade only (A-F).

## 698. Thesis or Project (1-6)

Prerequisite: Advancement to candidacy.
Planning, preparation, completion of a thesis or project.
Required of all M.A. candidates. Letter grade only (A-F)

## 699. Thesis or Project (1-6)

Prerequisite: Advancement to candidacy.
Planning, preparation, completion of thesis or project.
Required of all M.F.A. candidates and all candidates seeking a second M.A. Letter grade only (A-F).

## ECONOMICS <br> College of Liberal Arts

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When resources are scarce, difficult choices must be made on how resources are to be divided among competing uses. Economics is a social science that addresses the allocation of scarce resources. When applied to individuals, economics attempts to understand the behavior of individuals as consumers, managers and government officials. When applied to society as a whole, economics attempts to explain and predict the economy's total output, level of employment and price level.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Economics (code ECONBA01) (120 units)

The bachelor of arts degree with a major in economics prepares students for a variety of careers in business and government. The degree also provides the foundation for teaching in elementary and secondary schools and for more advanced study in economics, business, law, and other related fields.

## Requirements

Lower Division: ECON 100, 101, ACCT 201, and either MATH 115 or 122. Students with upper division status declaring Economics as a major may substitute ECON 300 for ECON 100 and 101.

Upper Division: ECON 310, 311, and 380, and six additional upper division courses in Economics of which at least two must be at the 400 level. ECON 310, 311, and 380 must be completed with a grade of " $C$ " or better. The following courses may not be used to satisfy the elective requirement in economics: ECON 300, 495, and 499.

The major also requires a minimum of two courses outside of Economics (totaling at least six units). Students may take any upper division courses from the departments listed below, or any of the following lower division courses: ANTH 120, GEOG 100, HIST 131, 132; MATH 114, 117, 123, 224; POSC 201; PSY 100; S W 220; SOC 100.

## Option in Mathematical Economics and Economic Theory (code ECONBA02) (120 units)

The Bachelor of Arts in Economics with an option in Mathematical Economics and Economic Theory provides students with the tools of economic analysis with an emphasis on economic theory, economic optimization and statistics. This option is recommended for students interested in graduate study in economics.

## Requirements

Lower Division: ECON 100 and 101, MATH 122, 123, 224 and 247. Students with upper-division status declaring the option may substitute ECON 300 for ECON 100 and 101.

Upper Division:
Economic Theory: ECON 310 AND 311. ECON 310 and 311 must be completed with a grade of "C" or better. Statistics: MATH 380 and 381.
Advanced Theory and Quantitative Methods: At least one of the following courses: ECON 403, 410H, 411H, 420, 433, 485 or 486.
Elective Courses: At least four additional upper-division courses in economics of which at least one economics course must be taken at the 400 level. Students may take one course from the following in meeting the elective requirement: MATH 364A, 480, 483 or 485; these will not substitute for the 400-level economics requirement. ECON 300, 380, 495 and 499 may not be taken to meet the elective requirement.

## Bachelor of Arts in Business Economics (code ECONBA03) (120 units)

The bachelor of arts degree with a major in business economics provides students with the tools of economic analysis and their application in a business environment.

The business economics major prepares students for careers in the private or public sector. Students completing this major will have a solid foundation in microeconomic theory, macroeconomic theory, and quantitative methods.

They will have also completed courses in international economics and business administration. The bachelors degree in business economics is excellent preparation for graduate study in economics, business administration, public administration, and law.

## Requirements

Lower Division Requirements: ECON 100, 101, ACCT 201, and either MATH 115 or MATH 122. Students with upper division status declaring economics as a major may substitute ECON 300 for ECON 100 and 101.

Upper Division Requirements: ECON 310, 311, and 380, and six additional upper division courses of which at least two must be at the 400 level. ECON 310, 311, and 380 must be completed with a grade of "C" or better. At least three courses must be selected from Group A; at least one course must be selected from Group B; and one course from Group C. The remaining elective may be selected from Group A or B, or any other upper division course in economics except ECON 300, 495, and 499.

Group A. Business Economics and Quantitative Economics (select at least three courses): ECON 320, $333,355,420,430,433,434,441,450,455,463,485$, 486.

Group B. International Economics (select at least one course): ECON 361I, 372, 465, 471.
Group C. Business Administration (select only one course): ACCT 310, FIN 300, HRM 360, MGMT 300, MKTG 300.

## Minor in Economics (code ECONUM01)

The Minor in Economics is available to any nonEconomics or non-Business Economics major.

The economics minor is designed to provide students with a broad-based introduction to the methods of economic analysis. It is suitable for students planning careers in many fields including primary and secondary education, journalism, law, or government. A minimum of 24 units which must include:

Lower Division: ECON 100 and 101, and either MATH 115 or 122. Students with upper division status declaring the minor may subsitute ECON 300 for ECON 100 and 101 with departmental consent.

Upper Division: ECON 310 and either ECON 311 or 320 , and at least three additional upper division economics courses, of which at least one must be at the 400 level. The following courses may not be taken as upper division electives in economics: ECON 300, 495, and 499

## Minor in Business Economics (code ECONUM02)

The Minor in Business Economics is available to any nonEconomics or non-Business Economics major.

The minor in business economics is equally suitable for students pursuing baccalaureate degrees in non-business and business fields. The minor provides students with a strong concentration in the techniques of economic analysis most closely related to business decision-making. A minimum of 24 units which must include:

Lower Division: ECON 100 and 101, and one of the following: ACCT 201, MATH 115 or 122. Students with upper division status declaring the minor may subsitute ECON 300 for ECON 100 and 101.

Upper Division: ECON 310 or 333 , 311 or 320 . The remaining 9 units ( 3 courses) may be selected from the upper division courses listed immediately above or any of the following courses: ECON 355, IS 310 or ECON 380, 372, 403, $420,430,432,433,441,450,455,463,485,486$.

## Minor in International Economics (code ECONUM03)

The Minor in International Economics is available to any non-Economics or non-Business Economics major.

The minor in international economics provides students with an introduction to the techniques of economic analysis and the application of those techniques to issues in the world economy. Students will learn about the economic history and institutions of other countries, issues associated with the economic growth of less developed countries, and international trade and finance.

The minor is suitable for students from all majors planning careers in a wide variety of fields including business, government, journalism and education. A minimum of 24 units is required and must include:

Lower Division: ECON 100 and 101, and either MATH 115 or 122. Students with upper division status declaring the minor may subsitute ECON 300 for ECON 100 and 101.

Upper Division: ECON 310 or 333 and ECON 311 or 320, and any three of the following course: ECON 361I, 372, 465.

## GRADUATE PROGRAMS

## Master of Arts in Economics (code ECONMA01)

The master of arts degree in economics is designed to provide academic preparation for positions in industry, government, consulting agencies and teaching. The emphasis is on the immediate application of more advanced principles of analysis to business, management and government.

Candidates are responsible for observing the general requirements stated in the Catalog as well as requirements specified by the Economics Department. Detailed information on requirements may be obtained from the department graduate advisor.

A limited number of graduate assistantships are available to qualified students.

## Prerequisites

1. A bachelor's degree with a major in economics; or
2. A bachelor's degree with 24 units of upper division courses comparable to those required of a major in economics at this University. (Deficiencies will be determined by the Economics Department.);
3. A minimum undergraduate GPA of 3.0 (B) in upper division economics courses.
4. Graduate students must consult with the graduate advisor for information concerning department procedures and for approval of their course of study before entering the master of arts program in economics.

## Advancement to Candidacy

Satisfy the general requirements of the University for advancement to candidacy.

## Requirements

1. Thirty units of upper-division (400-level courses marked with an asterisk) and graduate courses (500- and 600level courses), of which 24 units must be in economics with a minimum of 18 units in the 500 and 600 series. All students must develop three fields of concentration in economics, including economic theory (microeconomics and macroeconomics);
2. Satisfactory completion of ECON 503, 510, 511, 585 and 586;
3. Students must pass two comprehensive examinations, one in microeconomics and one in macroeconomics. Students must also successfully complete coursework in two elective fields of concentration with grades of "B" or better in the appropriate 600-level courses. A field of concentration includes a 600-level course and at least one upper-division or 500-level prerequisite course.

## Courses (ECON)

## LOWER DIVISION

## 100. Principles of Macroeconomics (3)

Prerequisite or corequisite: One course from the Foundation curriculum.
Money and banking, price changes, national income analysis, business cycles, economic growth, fiscal and monetary policy, international trade.
Not open for credit to students with credit in ECON 202. (CAN ECON 2)

## 101. Principles of Microeconomics (3)

Prerequisite or corequisite: MATH 103 or higher.
Business organization, price theory, allocation of resources, distribution of income, public economy.
Not open for credit to students with credit in ECON 201. (CAN ECON 4)

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. Fundamentals of Economics (3)

Prerequisites: Completion of GE Foundation requirements.
Designed for non-majors. Presents basic training in economics for social studies teachers or citizens who wish to exercise a reasoned judgment about economic issues in public affairs. Content generally same as ECON 100, 101, in condensed form.
Not open for credit to students with credit in ECON 100 or 101 except by consent of the Economics Department.
306I. Environmental Issues of the World Economy (3)
Prerequisites: Completion of the G.E. Foundation and the Category B requirement, and ECON 101.
Interdisciplinary analysis of human impact on the atmosphere and biological diversity; consideration of policies to foster sustainable development with emphasis on the economic perspective; international political economy of negotiations to promote global cooperation in defense of our common environment.

## 310. Microeconomic Theory (3)

Prerequisites: ECON 100, 101 and MATH 115 OR 122.
Analysis of economic concepts and their applications to business situations. Emphasis on supply and demand analysis, costs of production, variations of competition and monopoly, revenues, prices, profits and losses, and other aspects of the operations of the business enterprise.

Any prerequisite course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in ECON 310.

## 311. Macroeconomic Theory (3)

Prerequisites: ECON 100, 101 and either MATH 115 OR 122.
Determinants of levels of income, employment, and prices; of secular and cyclical changes in economic activity; and of the effects of public policies upon aggregative economic experience.
Any prerequisite course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in ECON 311.

## 313. History of Economic Thought (3)

Prerequisites: ECON 100 and 101, or 300.
Evolution of economics as a science. Doctrines of the different schools of economic thought. Study of the contributions of outstanding economists.

## 320. Money and Banking (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122.
Nature and functions of money and its relation to prices; the monetary system of the United States; the functions of banks, bank credit, foreign exchange and monetary control.

## 333. Managerial Economics (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122.
Development of the tools of marginalist analysis and their application to managerial decisions and planning. Emphasis upon the calculation of solutions to operational problems of the business firm. Topics include demand analysis, production and cost, pricing, and output decisions under different market structures. Product and factor markets will be analyzed.

## 355. Law and Economics (3)

Prerequisites: ECON 100 and 101, or 300.
Analysis of economic concepts and their application to law and legal institutions. Emphasis on property law, contract law, accident law, crime control and judicial administration.

## 360I. American Economic History (3)

Prerequisites: Completion of GE Foundation requirements; ECON 100 and 101, or ECON 300; and one or more Explorations courses.
Economic analysis of growth and welfare in the American economy from the beginnings of industrialization to the present, with emphasis upon the material and social factors affecting the transformation of our economy since the early nineteenth century.

## 361I. European Economic History (3)

Prerequisites: Completion of GE Foundation requirements; ECON 100 and 101, or ECON 300; and one or more Explorations courses.

Economic analysis of the principal features of the European economy from the Industrial Revolution to the present, with emphasis upon the problems of economic growth, capital formation and technological and demographic change in this era.

## 366. Introduction to Development Economics (3)

Prerequisites: ECON 100 and ECON 101 OR ECON 300.
Economic and social aspects of economic development. General analysis of all aspects of economies in developing countries. Application of concepts to current situation in developing countries from different parts of the world.
Not open to majors in the Department of Economics.

## 372. International Economics (3)

## Prerequisites: ECON 100 and 101, or 300.

International trade and exchange rate theory. Types of trade control: tariffs, quotas, exchange manipulation, monopolies. Basic U.S. and European commercial policies since 1930.
Not open for credit to students with credit in ECON 471.

## 380. Economic Statistics (4)

Prerequisites: ECON 100, 101 and either MATH 115 OR 122.
Use of descriptive and inferential statistical concepts for the analysis of economic data. Topics applied to economics include measures of central tendency and dispersion, probability theory, discrete and continuous probability distributions, hypothesis testing, regression and correlation analysis, economic time series and index numbers.
Any prerequisite course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in ECON 380.

## 403./503. Mathematical Economics (3)

Prerequisites: ECON 310 and 311.
Applications of calculus, linear algebra and other mathematical tools in formulating and solving economic problems. Designed for exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F). Not open for credit to students with credit in 483./583.

## 410H./510H. Advanced Microeconomics (3)

Prerequisites: ECON 310 and 311.
Applications of microeconomic theory. Detailed examination and analysis of particular markets and contemporary issues in light of economic theory. Specific emphasis on policy analysis for government and business decisions. Designed for exceptional undergraduate students who intend to pursue a graduate degree in economics.

Letter grade only (A-F).

## 411H./511H. Advanced Macroeconomics and Forecasting

 (3)Prerequisites: ECON 310 and 311.
Applications of macroeconomics, monetary and forecasting theory to operational management and planning decisions of government and business. This course is designed for exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F).
*420. Forecasting (3)
Prerequisite: ECON 311 or 320.
Principles and methods of forecasting. Evaluation of the reliability of existing forecasting techniques. Also covers use of the macroeconomic model as a basis for forecasting and the role of forecasts in the formulation of national economic policy.

## *430. Industrial Organization (3)

Prerequisites: ECON 310 or 333.
Exploration of corporate economics. The structure, behavior and performance of the relatively few large enterprises that originate more than two-thirds of the GDP of the U.S. An economic analysis of the arguments for and against 'big business.' Implications of separation of ownership and control, Corporate social responsibility and the profit motive. The dilemma of size versus competition.

## *432. Economics of Antitrust (3)

Prerequisites: ECON 310 or 333.
The attempt of government to produce superior economic practices and results by the legal imposition of purportedly more competitive market structures and behavior patterns on business firms. An economic analysis of the leading judicial decisions comprising the modern law of antitrust. A rigorous examination of the underlying presupposition of antitrust that competition is the best model for economic activity. The future of antitrust including a discussion of proposals for legislative overhaul, including repeal of existing antitrust law.
*433. Capital Theory and Financial Analysis (3)
Prerequisites: ECON 310 or 333.
Intertemporal choice and decision-making under uncertainty. Topics include multiperiod consumption, multiperiod production, capital budgeting and financial management.
*434. Economics of Regulation (3)
Prerequisites: ECON 310 or 333.
The attempt of government to intervene in the existing market sector for the purpose of producing more competitive and socially acceptable practices and results while retaining the efficiency of large-scale economic organization. A comprehensive survey of the past, present and future of the political regulation of economic and business activity. Consideration of the rationale for regulation and deregulation and the creation, design and removal of regulatory practices. The changing concept of the public interest.

## 437. Urban Economics (3)

Prerequisite: ECON 310.
Economic analyses of city formation and size, business and residential location decisions, land use. Application of microeconomic theory to urban transportation issues, residential segregation, urban poverty and crime, and housing markets. Introduction to local public finance and provision of local public goods.

## 438. Regional Economics (3)

Prerequisites: ECON 310 and ECON 311
Economic evolution and growth of cities, states and countries.
Roles of geography, demography, location of industries, and factors determining regional growth and development will be considered. Special attention will be paid to the economic integration of U.S. states and European nations.

## *441. Labor Economics (3)

Prerequisite: ECON 310.
Manpower resources and their utilization, with particular reference to labor unions, collective bargaining and related public policies. Effects of these institutions on production, employment, prices and patterns of income distribution.

## *445. Economics of Health (3) <br> Prerequisite: ECON 310.

Analysis of health as an economic good. Health services as scarce resources. Use of tools of economic theory in study of special problems of health resources, markets, manpower shortages, non-profit enterprises, insurance programs and Medicare. Procedures stress individual studies and reports.
Same course as HCA 451.
*450. Public Sector Economics (3)
Prerequisites: ECON 310 and 311.
The economic role of government. Analysis of the theory of public goods. Criteria for efficient allocation of resources between the private and the public sector. Possible responses of government externalities, such as environmental degradation. Emphasis on the allocation and distribution effects of government expenditures and taxation.

## 455./555. Transportation Economics (3)

Prerequisites: ECON 310, 311, and 380 or ECON 500 or consent of instructor.
Economic analysis of intercity transportation, cost measurement, applications of pricing principles, project evaluation, and economic regulation. Policies towards railroads, air transportation, and intercity highways.
Letter grade only (A-F).

## *462. Environmental Economics (3)

Prerequisite: ECON 310.
Economic analysis of environmental problems and policy. Market failures due to externalities, public goods, and common property resources will be examined. Private (market) and public (governmental) solutions to environmental problems are examined.
*463. Energy Economics (3)
Prerequisite: ECON 310.
Application of economic analysis to energy problems and policies. Representative topics include macroeconomic effects of energy price shocks, international financial fragility, OPEC pricing strategies, determinants of demand and supply, industrial organization and finance, investor and publicly owned utilities, domestic and international policies.

## *464. Natural Resource Economics (3)

Prerequisite: ECON 310.
Microeconomic and capital theory applied to problems of conserving and managing natural resources. Analysis of public policies affecting renewable and nonrenewable resources including price controls, taxation and leasing. Representative topics include: forestry, fishery, energy, water, and mineral economics.

## 465./565. Economic Development (3)

Prerequisite: ECON 310 and 311.
Economic and social factors underlying economic development. Analysis of problems associated with economic growth of less developed countries. Evaluation of development policies.

## 471/571. International Finance (3)

Prerequisite: ECON 311.
Covers topics in international finance in both an applied and theoretical framework, such as the balance of payments, the foreign exchange market, income, trade, capital flows, asset market adjustment mechanisms, and exchange rate regimes.

## 485. Econometrics I (3)

Prerequisites: ECON 310, 311, and 380.
First course in a two-semester sequence introducing students to basic techniques in econometrics. Basic statistics and the classical linear regression model are covered. Emphasis is given to computing estimators using simulated and actual data sets. (Lecture 3 hours, laboratory 2 hours.)
486. Econometrics II (4)

Prerequisites: ECON 485.
Second course in a two-semester sequence introducing students to basic techniques in econometrics: advanced regression and special topics, including time-series and panel data analysis. Introduction to problems of observation, estimation, and hypothesis testing in economics through the study of the theory and application of linear normal regression model, critical evaluation of selected examples of empirical economic research, and exercises in applied econometrics. By the end of the course, student will have an understanding of the types of research designs that can lead to convincing analysis and be comfortable working with large-scale data sets.
(Lecture 3 hours, laboratory 2 hours.)
*490. Special Topics in Economics (3)
Prerequisite: Consent of instructor.
Topics of current interest in economics selected for intensive development.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.

## 491H. Senior Honors Seminar in Economics (3)

Prerequisites: Senior status, ECON 485 or 486, and consent of instructor.
Provides opportunity for students to integrate their knowledge of economics, statistics-econometrics and computer studies. Designed as a seminar in research where students will be expected to write a paper and present their research results orally. Research topics must be approved by instructor.

## 495. Field Studies Practicum (3)

Prerequisites: ECON 310 or 333 and consent of instructor.
Observation and practical experience, at a managerial level, in an appropriate business or government enterprise.
Applications for permission to enroll must be filed with the Economics Department at least six weeks prior to beginning of the semester involved.
May be repeated to a maximum of 6 units.

## 499. Directed Study (1-3)

Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 500. Business Economics (3)

Workings of the price system in the allocation of resources, and the determination of the level and fluctuations of aggregate economic activity, with special emphasis on the role of business enterprise in the economy. Analysis of the economic implications of various forms of industrial organization and the application of public policy to business activity, including antitrust policy and regulation.
Not open for credit to students majoring in economics or pursuing an M.A. in Economics. Letter grade only (A-F).
503./403. Mathematical Economics (3)

Prerequisites: ECON 310 and 311.
Applications of calculus, linear algebra and other mathematical tools in formulating and solving economic problems.
Not open for credit to students with credit in 483./583. Letter grade only (A-F).

## 510H./410H. Advanced Microeconomics (3)

Prerequisites: ECON 310, 311 and 503.
Applications of microeconomic theory. Detailed examination and analysis of particular markets and contemporary issues in light of economic theory. Specific emphasis on policy analysis for government and business decisions.
Letter grade only (A-F).

## 511H./411H. Advanced Macroeconomics and Forecasting (3)

Prerequisites: ECON 310, 311 and 503.
Applications of macroeconomics, monetary and forecasting theory to operational management and planning decisions of government and business.
Letter grade only (A-F).

## 555./455. Transportation Economics (3)

Prerequisites: ECON 310, 311, and 380 or ECON 500 or consent of instructor.
Economic analysis of intercity transportation, cost measurement, applications of pricing principles, project evaluation, and economic regulation. Policies towards railroads, air transportation, and intercity highways.
Letter grade only (A-F).

## 565./465. Economic Development (3)

Prerequisites: ECON 310 and 311.
Economic and social factors underlying economic development. Analysis of problems associated with economic growth of less developed countries. Evaluation of development policies. Letter grade only (A-F).

## 571./471. International Finance (3)

Covers topics in international finance in both an applied and theoretical framework, such as the balance of payments, the foreign exchange market, income, trade, capital flows, asset market adjustment mechanisms, and exchange rate regimes. Letter grade only (A-F).

## 585. Econometrics I (3)

Prerequisites: ECON 310, 311, 380 and consent of instructor.
First course in a two-semester sequence introducing students to basic techniques in econometrics. Basic statistics and the classical linear regression model are covered. Emphasis is given to computing estimators using simulated and actual data sets. Letter grade only (A-F).

## 586. Econometrics II (3)

Prerequisites: ECON 585 and consent of instructor.
Second course in a two-semester sequence introducing students to basic techniques in econometrics: advanced regression and special topics, including time-series and panel data analysis. Introduction to problems of observation, estimation, and hypothesis testing in economics through the study of the theory and application of linear normal regression model, critical evaluation of selected examples of empirical economic research, and exercises in applied econometrics. By the end of the course, student will have an understanding of the types of research designs that can lead to convincing analysis and be comfortable working with largescale data sets.
Letter grade only (A-F).
597. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Intensive reading and/or practical research in economics.
Letter grade only (A-F).

## 660. Seminar in Natural Resources and the Environment

 (3)Prerequisites: ECON 510H, 511H, and one of the following: ECON 462, 463 or 464.
Research methods applied to selected topics from energy, natural resources, and the environment.
Letter grade only (A-F). (Seminar, 3 hours.)
670. Seminar in International Trade and Development (3)

Prerequisites: ECON $510 \mathrm{H}, 511 \mathrm{H}$, and one of the following: ECON 565.

Selected topics dealing with current problems and solutions in international trade, finance, and development.
Letter grade only (A-F).

## 686. Seminar in Econometrics (3)

Prerequisites: ECON 586, 510H and 511H.
Development of methods for the estimation and testing of the relationships among economic variables and use of econometric models for prediction and economic policy purposes.
Letter grade only (A-F).

## 690. Seminar in Economics (3)

Prerequisite: Consent of instructor.
Seminar on topics of current interest in economics.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor.
Independent research under the guidance of a faculty member. Letter grade only (A-F).

# EDUCATIONAL PSYCHOLOGY, ADMINISTRATION, AND COUNSELING College of Education 

## Department Chair

Simon Kim

## Department Assistant Chair

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Faculty

## Professors

Robert H. Berdan, Kathleen Cohn, Jana Echevarria, Lesley Farmer, Gary Greene, Marquita Grenot-Scheyer, Elaine J. Haglund, Rose Marie Hoffman, A. Jean Houck, Thomas J. Kampwirth (Emeritus), Simon Kim, Marilyn Korostoff, Ralph E. Matkin, Robert Maxson, Karen Nakai, Dawn R. Person, William Saltzman

## Associate Professors

Stephen Adams, Jennifer Coots, Bita Ghafoori, Zeus Leonardo, Thelma Moore-Steward, Anna Ortiz, Jill Pinkney Pastrana, Shireen Pavri, Kristin Powers, Joanne Tortorici Luna, Katherine Van Giffen

## Assistant Professors

Christine Bhat, Thema Bryant-Oavis, Teresa Chen, Laura Forrest, Sara Goldberg-Hamblin, Kristi Hagans-Murillo, Jennifer Lamkins, Hiromi Masunaga, Ali Rezaei, Catherine Richards

The Department of Educational Psychology, Administration, and Counseling offers graduate level course work in the following program areas: Educational Administration; Educational Psychology; Social and Multicultural Foundations; Marriage and Family Therapy (MFT); School Counseling; School Psychology; Student Development in Higher Education; and Special Education; as well as undergraduate service courses in life skills and other areas

Students desiring information should contact the department office for referral to one of the faculty advisors.

All CED graduate level courses (500/600) are assumed
to be Letter grade only (A-F) unless stated otherwise.

## Graduate Degrees

Master of Arts degrees in Education with the following options are offered:

- Educational Administration
- Educational Psychology
- School Librarianship
- Social and Multicultural Foundations of Education
- Educational Technology

Two Master of Science degrees are available:

- Special Education
- Counseling

MS in Counseling offers five options:

- Career Counseling (temporarily suspended for new admissions)
- Marriage and Family Therapy
- School Counseling
- Student Development in Higher Education
- Vocational Rehabilitation Counseling (temporarily suspended for new admissions)


## Credentials

The department offers credentials in Administrative Services (Preliminary and Professional), Pupil Personnel Services (School Counseling, School Counseling Internship, School Psychology, School Psychology Internship), Special Education (Mild/Moderate and Moderate/Severe) and Library Media Teacher Services. In addition, a Graduate Certificate in Career Guidance Specialist and Community College are offered. (Please note: the Graduate Certificate in Career Guidance Specialist is under consideration for discontinuance.)

Required credential courses must be completed with a grade of " $C$ " or better. The minimum grade point average for successful progress in the credential programs of the department is 3.0 on all units to be applied to the credential program. Students falling below 3.0 will be placed on probation. To maintain status in the credential program students must earn sufficient grade points to bring GPA back to 3.0 by the end of the regular semester following the semester in which the GPA fell below 3.0. Refer to this catalog for policy.

## Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code COEDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units): Culture: ANTH 421/LING 425 or EDP 432/EDEL 430 Language: EDSP 454 or LING/CD 329
Schooling: EDP/LING 485
Development: EDP 301, 302, HDEV 307I, or PSY 361
2. Six additional units, selected with an advisor, from the following:
Culture: AIS 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319, ANTH 329, ANTH 412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430

Language: ANTH 170; CHLS 402; EDSP 454; LING/CD 329; LING/ENGL 327; LING 363I, 435, 472, 486.
Schooling: AIS 361, ASAM 310, B/ST 420, CHLS 340, EDP 305, EDSP 350.
Development: EDP 301, EDP 302, HDEV 307I, PSY 361.

## Master of Arts in Education

Please submit a separate program application as well as a University application for all masters and credential programs. Program application dates may vary (please see individual program).

## Option in Educational Administration (code EDADMA01)

Educational leaders serve in many capacities. No matter what position an individual holds within an educational organization, all energies should be directed at maximizing the academic achievement of all students being served. The courses in the Educational Administration Option are designed to prepare leaders for this important work. Emphasis is placed on the role of schooling in a democratic society, instructional leadership, building collaboratives, managing and guiding change, and working with diverse populations. Because of our location, issues associated with urban schools are a primary focus of the program.

## Prerequisites

15 upper-division units in education including EDP 400, or equivalent experience.

## University Admission

File a "University Application for Graduate Admission" along with one complete set of official transcripts with the University Office of Admissions. Online University application may be completed at www.csumentor.edu.

## Conditional Admission to the Program

File a separate "Preliminary Administrative Services Masters/Credential Program Application" with the College of Education Graduate Office (ED1-7) along with one complete set of official transcripts and items 1-3 listed below no later than March1 for fall admission.

1. Transcripts verifying a minimum 2.85 overall GPA in the last 60 semester (or 90 quarter) units of course work taken;
2. Two non-confidential letters of recommendation (following Letter of Recommendation Guidelines found with program application) from individuals familiar with your professional competence and potential as an educational leader, one of which must be from your principal or immediate supervisor;
3. A double-spaced typed personal statement (following Personal Statement Guidelines found with program application) describing your educational preparation, leadership experiences, and leadership philosophy;
4. Participate in a screening process that includes an oral interview and may require submission of an onsite impromptu writing sample.

## Clear Admission to the Program (Advancement to Candidacy)

In addition to 1-4 above, a candidate must:

1. Fulfill the Graduation Writing Assessment Requirement (GWAR);
2. Complete EDP 400;
3. Resolve all incomplete grades;
4. Complete the following core course: EDAD 541, and one other EDAD course for a total of six (6) units.
5. Maintain a 3.0 grade point-average in all completed program courses;
6. Complete an approved plan of study in consultation with a program advisor.

## Requirements

A minimum of 30 units with a 15 unit concentration in Educational Administration is required; 21 units must be in the 500/600 level series taken at this University.

1. One of the following ( 3 units): EDP 574 or EDAD 649.
2. One of the following (3 units): EDP 575, 576, or 672.
3. One of the following (3 units): EDP 520, 595, or 696.
4. One of the following chosen in consultation with the faculty advisor: EDAD 695 Master's Research Study in Educational Administration (3 units) or EDAD 698 thesis ( 6 units).
5. All of the following ( 18 units): EDAD 541, 544, 647, 648, 650, 677A.
This program is under revision. Please check with program advisors regarding requirements.

## Option in Educational Psychology (code ED_PMA02)

The Option in Educational Psychology is a researchoriented program designed for students and educators to develop their understanding of learning and development, testing and assessment, research, and program evaluation in education. This program offers a rigorous curriculum in these areas and requires that the student declare a "foundation" emphasis within the Option. There are two Tracks in this Option: Track 1 (MA, Option in Educational Psychology) and Track 2 (MA, Option in Educational Psychology plus School Psychology Credential Program). Admission to the MA, Option in Educational Psychology does not guarantee acceptance to the highly competitive School Psychology Credential Program.

## Admission Requirements

## University Admission Application

1. File an Application for Graduate Admission along with one complete set of official transcripts with the University Office of Admissions prior to March 1 for consideration to enter the fall semester. Online application at www.csumentor.edu.
2. Complete Parts A and B. In Part B, insert program code ED_PMA02.

## Conditional Admission to the Program

1. Meet University admission requirements.
2. Complete a program application (see application for requirements) and submit it to the Graduate Office in the College of Education (ED1-7) with official transcripts, one from each college attended. Transcript must verify a GPA of 3.00 or higher in the last 60 semester (or 90 quarter) units of college course work taken. Evidence of completing at least a baccalaureate degree majoring in the behavioral sciences, education, or a related program prior to beginning of the MA, Option in Educational Psychology is required. (Applicants with other majors should seek advisement from the program faculty.) The program application is separate from the University application.
3. Send an official transcript of test scores obtained from the Educational Testing Service (ETS) for the Graduate Record Exam (GRE) General Test to the Graduate Office in the College of Education. For admission consideration, the criterion is a combined Verbal and Quantitative score of 1000.
4. For international students, whose primary language is not English, in addition to GRE scores, send an official transcript of a test score obtained from the Educational Testing Service (ETS) for the Test of English as Foreign Language (TOEFL) to the Graduate Office in the College of Education. For admission consideration, the criterion is a TOEFL score of 550 or higher.
5. Program application deadlines for consideration to enter the Fall semester: March 1 (for Track 1) and February 17 (for Track 2). Check the CSULB Catalog and the program website (http://www.ced.csulb.edu/edpsych) for further information on the application to Track 1. Track 2 application is combined with the application to the School Psychology Credential Program. Check the CSULB Catalog and the program website (http://www.ced.csulb. edu/school-psych) for further information on the application to Track 2 (MA, Option in Educational Psychology plus School Psychology Credential Program) and the School Psychology Program.
6. Official transcript(s), GRE scores, and TOEFL score if applicable, must be on file in the Graduate Office in the College of Education no later than March 1 (for Track 1) and February 17 (for Track 2) for consideration to enter the Fall semester.
7. Note: "Conditional admission" status does not guarantee clear admission to the master's program.

## Clear Admission to the Program

 (Advancement to Candidacy)The catalog published in the academic year in which the student is advanced to candidacy governs the course of that student's program. In addition to 1-6 above, a candidate must: 1. Fulfill the Graduation Writing Assessment Requirement (GWAR).
2. Complete the following prerequisites:

Track 1: EDP 301 or 302; and EDP 305, 419 and EDSP 350; or acceptable equivalents
Track 2: EDP 301 or 302; and EDP 405 and 419, or acceptable equivalents
3. Complete 6 to 9 units of core courses.
4. Maintain a 3.0 grade point average on the prerequisites plus 6 to 9 units of core courses.
5. Resolve all incomplete grades.
6. Complete an approved plan of study in consultation with the program advisor.

## Program Requirements

## MA Objective (Track 1)

The degree objective requires a total of 33 units (not including prerequisites) made up of a 27 -unit core and a 6 -unit "foundation" that culminates in either (a) a master's thesis or (b) a written comprehensive examination.

1. Degree Core:
A. EDP 519, 520, 541, 595, 596, 619, 604, and 605
B. 3 units from EDSP 564 or 500/600 level elective (with the approval of the program advisor)
2. For the "foundation" culminating in a master's thesis, the student completes all of the above 27 units of core courses plus 6 units of EDP 698. For the "foundation" culminating in a written comprehensive examination, the student completes all of the above 27 units of core courses plus 6 units of 500/600 level electives selected with the approval of the program advisor. For the "foundation" culminating in a master's thesis, the student is strongly encouraged to complete EDP 696 as a 500/600 level elective.

## MA Objective (Track 2)

Assignment to Track 2 requires that students are admitted to both the Master of Arts in education, Option in Educational Psychology and the School Psychology Credential Program. The degree objective requires a total of 32 units (not including prerequisites) made up of a 23 unit core and 9 -unit "foundation" that culminates in either (a) a master's thesis or (b) a written comprehensive examination. All courses are 3 units unless specified otherwise.

1. Degree Core:
A. EDP 520, 524A, 524B (2units), 579 (4 units), 604, and 605
B. EDP 525A and 525B (2 units)
2. For the "foundation" culminating in a master's thesis, the student completes all of the above 23 units of core courses plus 6 units of EDP 698, and 3 units from the following: EDP 541,595,596, or 696. For the "foundation" culminating in a written comprehensive examination, the student completes all of the above 23 units of core courses plus all of the following: EDP 519, 541, and 596.

## Option in Educational Technology (code ED_PMA05)

Serving the mission of enhancing education through the use of technology, educational technology specialists perform many functions in schools, educational institutions, and training agencies. This option prepares leaders in the field who will evaluate, design, and effectively use technology for educational purposes. Combining both theory and practice, this option is designed for individuals seeking career growth in $\mathrm{K}-12$ and university settings and for those planning to pursue doctoral degrees.

## Admission to the Program

File a Master of Arts in Education, Option In Educational Technology application to the College of Education Graduate Office along with one complete set of transcripts no later than March 1 for fall admission or October 1 for spring admission, including information to satisfy the requirements below. (Items $1-5$ are required, and item 6 is optional.)

1. A bachelor's degree from an accredited college or university.
2.Upper-division coursework in statistics and research.
2. Upper-division coursework in the use of technology and computer applications (3 units), e.g., ETEC 444, EDP 443, EDP 523, or equivalent experience (see advisor).
3. A 3.0 GPA (on a 4-point system) in the last 60 units of upper division and/or graduate course work completed at an accredited college or university and a 3.0 GPA in all prerequisite course work.
4. Three (3) letters of recommendation, preferably from teachers, supervisors or colleagues in education or related fields.
5. A word-processed personal statement -- see the program application for the specific questions to address.
6. (Optional). Applicants are encouraged, but not required, to submit an official transcript of scores obtained from the Graduate Record Exam (GRE) General Test, the Graduate Management Admission Test (GMAT), or the Miller Analogies Test (MAT).

## University Admission

Meet University admission requirements. Upon acceptance to the program, File an Application for Graduate Admission along with one complete set of official transcripts with the University Office of Admission no later than July 1 for Fall consideration and no later than December 1 for Spring consideration. With permission of the faculty committee, students may count up to 9 units of previously taken graduate courses toward the degree

## Advancement to Candidacy

1. Provide evidence of passing the Graduation Writing Assessment Requirement (GWAR).
2. Maintain a 3.0 GPA in all course work.
3. Resolve any Incomplete grades.
4. Complete at least 6 program units and any prerequisites. The following prerequisites must be completed if planned course of study includes EDP 520,400 (3 units) or both 419 (3 units) and 420 (3 units).

## Requirements

Students must complete a minimum of 30 units of upper division and graduate courses, of which at least 21 units must be at the 500/600 level taken at this university. With permission of the faculty committee, students may count up to 9 units of previously taken graduate courses toward the
degree.

1. Core courses (21 units):

Research methods: EDP 520 or 595
Educational technology: ETEC 523, 525, 530, 551, 553, and 623.
2. Electives (6 units): In consultation with advisors, students should select 6 additional units. Options include, but are not limited to, the following:
A. Educational Technology: ETEC 580
B. Educational Psychology: EDP 520, 595 (if not taken as a core course)
C. Library Media: ELIB 530A, 530B, 540, 550
D. Special Education: EDSP 542
E. Computer Science: CECS 401E, 410E
F. Other courses, including those outside the College of Education, chosen in consultation with faculty advisors.
3. One of the following chosen in consultation with the faculty advisor:
A. ETEC 695 (3 units) plus pass a comprehensive examination
B. EDP 699 Project with written Project Report (6 units)
C. EDP 698 Thesis (6 units)

## Option in School Librarianship (code ED_PMA06)

Library media teachers implement school library media programs through teaching, information access and delivery, and program administration. The Library Media Teacher Services Credential prepares students to serve in K-12 settings. For additional information go to www.csulb.edu/lmt. The Master's degree option in School Librarianship provides a rigorous academic foundation for professional leadership in school librarianship. Because the Master of Arts degree option incorporates work toward the credential, students may pursue their credential and degree simultaneously.

## Program Admission

Submit a program application to the Office of Graduate Studies, ED1-7, as well as a University application to the Office of Enrollment Services, no later than March 1 for fall consideration or October 1 for spring consideration.

## Prerequisites

A current valid basic teaching credential (multiple subject, single subject, or education specialist) and completion of a bachelor's degree; passage of CBEST.

## Clear Admission

1. Meet University admission requirements;
2. Copies of transcripts verifying a GPA of 3.0 or higher on the last 30 semester units of course work taken;
3. Three letters of recommendation;
4. A written personal statement describing your educational and experiential background, and professional goals; accompanying resume;
5. Screening interview.

## Advancement to Candidacy

1. Fulfill the Graduation Writing Assessment Requirement (GWAR).
2. Maintain a 3.0 GPA from the time of admittance to the program.
3. Complete at least six units in the approved program.

## Program Requirements

A minimum of 37 units is required, with at least 21 units in the 500/600 level series taken at this University. Students may choose either the comprehensive examination track or the thesis track, in consultation with the advisor.

## Core Requirements

1. The following (3 units): ELIB 500
2. The following (21 units): ELIB 510, 520, 530A, 530B, 540, 550, 570
3. The following ( 3 units): EDCI 625; or equivalent
4. The following (3 units): EDP 520
5. The following (4 units): ELIB 580
6. One of the following chosen in consultation with the faculty advisor upon advancement to candidacy:
A. Comprehensive examination and research paper: EDP 697 (3 units); or B. EDP 698 Thesis ( 6 units)

A working knowledge of word processing, databases, spreadsheets, desktop publishing, presentation software, Internet searching and e-mail usage is expected.

## Option in Social and Multicultural Foundations of Education (code ED_PMA03)

Students pursuing the option in Social and Multicultural Foundations engage in both traditional and contemporary perspectives through focused, interdisciplinary study. The option is designed for individuals seeking careers in multicultural/multilingual settings, international education, contemporary urban educational environments, and for students interested in pursuing higher academic degrees.

## Admission Procedures

Submit a program application no later than March 1 for Fall semester consideration and October 1 for Spring semester consideration to the Graduate Studies and Research Office in the College of Education. Failing to supply a complete application by the deadline may jeopardize your acceptance into the program. Include the following material with the application:

1. One complete set of transcripts from all educational institutions attended. Transcripts must verify a minimum grade point average of 2.85 in the last 60 semester (or 90 quarter) units of course work.
2. A type written 3-page personal statement that discusses A) academic and career experience B) intellectual or academic strengths $C$ ) professional goals.
3. One representative sample of applicant's academic writing.
4. Two letters of recommendation from someone who can evaluate your abilities.
Submit a university application no later than March 1 for Fall semester consideration and October 1 for Spring semester consideration, file an Application for Graduate Admission with the University Office of Admissions, along with one complete set of official transcripts from all educational institutions attended.

## Program Prerequisites

Nine (9) units of the following courses which may be taken concurrently with program courses, but must be completed prior to advancement to candidacy.

1. EDP 432 (or equivalent)
2. EDP/LING 485 (or equivalent)
3. EDP 400 (or equivalent)

Program Requirements
Thirty-three (33) to thirty-six (36) units of upper division and graduate courses, of which twenty-four (24) units in residency must be at the 500/600 level.
Program Courses: A minimum of fifteen (15) of the 33-36 units must be chosen from: EDP 573, 574, 575, 576, 582, 583, 672
Research Methodology: Three (3) units from one of the following: EDP 520 or EDP 595/LING 595
Electives: Twelve (12) units of elective courses. The balance of the program is completed through approved electives appearing in the list of courses below. Electives also include Program Courses exceeding the 15 units required above. For convenience, related courses are listed together but may be taken in any combination.
(When selecting courses below the 500 level, students may choose only those with an asterisk beside the course number, indicating that they are acceptable for credit in a master's degree - or those courses appearing on the List of Approved 400 Level Courses.)
Related courses on Race, Class, and Gender Studies in Education: EDCI 505; ANTH 519/419; HIST *469, *406A, *406B, *394; POSC *401; PPA 533;
Related courses on Language, Literacy, and Culture in Education: EDP 578/LING 475/575, EDRG 540, ELIB 500, LING 650, ANTH *413, ANTH 530;
Related courses on International/Global Education: ETEC 525, ANTH *421/LING *425, POSC *455

## Advancement to Candidacy

Students may advance to candidacy, at which time they receive catalog rights, after they have:

1. Met with the advisor
2. Completed all prerequisites
3. Completed 6 units of program courses
4. Passed the Graduation Writing Assessment Requirement (GWAR)
5. Maintained a 3.0 GPA in all program course work, including prerequisites
6. Completed any Incomplete grades

## Exit Requirement

After completing all course work and advancing to candidacy, the candidate must select either the Directed Research and Comprehensive Exam or Thesis option. Either choice requires the permission of the program coordinator, department chair, and associate dean. Candidates choose one path from:

1. (A.) Directed Research: EDP 697 - for three (3) units, one semester, (B.) Comprehensive Exam
2. Thesis: EDP 698 - for six (6) units, over two semesters

## Master of Science in Counseling

Counselors serve valuable functions in fields of education, health and human services, and business. Their domains of practice include public and private educational institutions, medical facilities and allied health agencies, social service agencies and organizations, state and federal human service agencies and programs, correctional facilities, business and industry, and private practice. The program's philosophy is to introduce students to a variety of approaches to counseling, and to encourage the development of competencies within these approaches.

The program combines theory and practice utilizing on and off campus course work and field work assignments. Required courses are offered predominantly in the evening, but most field assignments require daytime participation during normal business hours defined by the off-campus sites.

Students coming from diverse experiential backgrounds are trained at the graduate level to be able to perform entry level duties expected by the counseling profession and its specialty areas. Students are prepared to assume future leadership positions in their area(s) of expertise after additional work experiences have been acquired in the field following graduation.

The Master of Science in Counseling Program consists of five options:

1. Career Counseling (temporarily suspended for new admissions)
2. Marriage and Family Therapy
3. School Counseling
4. Student Development in Higher Education
5. Vocational Rehabilitation Counseling (temporarily suspended for new admissions)
The total number of course units needed to satisfy requirements for graduation depends upon the option selected by the student.

## University Admission

File an Application for Graduate Admission along with one complete set of official transcripts from all educational institutions with the University Office of Admissions no later than March 1 for Fall consideration.

## Program Admission

File a completed Master of Science in Counseling application to only one program option area with the College of Education Graduate Office (ED1-7) along with one complete set of official transcripts no later than March 1 including steps 1-3 listed below:

1. Transcripts must verify a GPA of 2.85 or higher on the last 60 semester (or 90 quarter) units of course work taken. Evidence of completing at least a baccalaureate degree majoring in the behavioral sciences, education, or related program prior to beginning the Master of Science in Counseling program (those with other majors should seek advisement from the program faculty);
2. Send three (3) letters of recommendation along with the Program Application;
3. Send a type-written personal statement as instructed in the Program Application;
4. Screening interview(s) (upon notification by the option area);
5. Items 1-3 above must be on file in the Graduate Office no later than March 1 for the following fall semester (students are admitted to begin course work in the fall semester only but may take summer courses after program acceptance notification) except as noted below. Career Counseling applicants only: Items 1-5, along with results of the Miller Analogies Test (MAT) and current edition of the Strong Interest Inventory, must be on file in the College no later than March 15 (temporarily suspended for new admissions).
MFT applicants only: Items 1-3 must be on file in the College no later than March 1.
School Counseling applicants only: Items 1-3 must be on file in the College of Education Graduate Office no later than March 1.
Student Development in Higher Education applicants only: Items 1-3 must be on file in the College of Education Graduate Office no later than March 1.
6. Applicants are not allowed more than 9 semester unit credits applied to curriculum requirements of the option selected prior to admission into the first semester of the program.

## Option in Career Counseling (code ED_PMS01)

Students in this option prepare to provide career counseling and guidance services to adults and adolescents in the community and public agencies, college and university settings, business and industry settings, and private practice. The training prepares individuals for the California Registered Professional Counselor (CRPC) and National Master Career Counselor (MCC) examinations (temporarily suspended for new admissions).

## Requirements

All of the following: COUN 502, 510, 513, 515, 529, 530, 531, 637, 638, 643C, 644C; and all requirements of ONE of the following tracks (21 units): Thesis Track - EDP 419, 420, 519, 520, 696, 698; OR Comprehensive Examination Track- EDP 400; and six elective courses from COUN 505, 516, 555, 580, 601, EDP 517, 520, 524A, 596; EDSP 564.

## Advancement to Candidacy

COUN 515,530 ; EDP 400 or 419; fulfill the Graduation Writing Assessment Requirement (GWAR).

## Option in Marriage and Family Therapy (code ED_PMS04)

Students in this option will prepare for licensed independent MFT practice to work in private practice, community-agency settings, government-court settings, hospitals, clinics, Employee Assistance Programs, and city-county-state agencies to provide counseling services for adults, children, families and couples.

## Prerequisite

EDP 400 or equivalent.

## Requirements

All of the following ( 61 units): COUN 508A, 508B, 510, 511, 512, 513, 514, 515, 522, 543, 555, 556, 557, 601, 608, 609, 638, 643D, 644D; EDP 520, and EDP 698 or comprehensive examination. Students electing the comprehensive examination must complete an additional 6 units of approved electives from coursework in the counseling program.

## Advancement to Candidacy

COUN 508A, 510, 513; EDP 400; fulfill the Graduation Writing Assessment (GWAR).

## Option in School Counseling (code ED_PMS02)

The Master of Science in Counseling (School Counseling Option) and the Pupil Personnel Services School Counseling Credential Programs are designed to prepare counselors to work in elementary, middle, and high schools. Both programs support a comprehensive, developmental, and collaborative school counseling model. Based upon the American School Counselor Association's National Standards for K-12 School Counseling Programs and their 2003 National Model, our programs further support a balanced, holistic approach that considers the academic, career development, and personal/social needs of K-12 students. Graduates are expected to become proactive
leaders who will advocate for their students and themselves, as counseling professionals working toward equity, achievement, and opportunity for all students.

Students entering the Master of Science in Counseling (School Option) program concurrently fulfill requirements for the Pupil Personnel Services School Counseling Credential and must apply to both programs. The Pupil Personnel Services School Counseling Credential (PPS/ SC ) is required by the California Commission on Teacher Credentialing (CCTC) for persons employed by the public schools as school counselors. (See Credential Programs)

Each year the School Counseling Programs Information and Application Packet is revised. Applicants must use the application developed specifically for the year for which they are applying.

## Requirements

All of the following (51-57 units): COUN 506, 507 (or EDP 530 or 531 for students who have advanced to candidacy prior to Fall 2005), 510, 513, 515, 555, 606, 607, 638, 643A, 644A, and 695C; EDP 400, 520, 536, 596,604 , and 2 semesters of EDP 698 or comprehensive examination.

Advancement to Candidacy: COUN 506, 513, 515; EDP 400; fulfill the Graduation Writing Assessment Requirement (GWAR).

## Option in Student Development in Higher Education (SDHE) (code ED_ PMS03)

Students completing this option are employed in residence halls, financial aid, student activities, adult re-entry, admissions, career centers, academic advising, disabled student services, counseling centers, orientation, trio and educational opportunity programs, multicultural affairs, and community outreach in two- and four-year institutions.

## Requirements

All of the following ( $50-57$ units): COUN 510, 513, 515, 516, 538, 547, 548, 549, 555, 593, 638, 643B, 644B, 693; EDP 400, 520, 576, 596; and EDP 698 or comprehensive examination.

Advancement to Candidacy: COUN 510, 515, 538, 593, EDP 400; fulfill the Graduation Writing Assessment Requirement (GWAR).

## Option in Vocational Rehabilitation Counseling (VRC) (code ED_PMS05)

Students in this option prepare to provide vocational rehabilitation services to people with disabling conditions in state rehabilitation service offices, community-based sheltered workshops, hospitals, clinics, geriatric centers and hospices, Employee Assistance Programs, Social Security Disability Administration offices, private counseling firms, private practice, and School-to-Work Transition Programs. They also prepare for national Certified Rehabilitation Counselor (CRC) and California Registered Professional Rehabilitation Counselor (CRPRC).

Applicants should be aware that this option is under consideration for suspension or discontinuance and selected courses will not be offered in the 2006-07 academic year.

## Requirements

All of the following (59-65 units): COUN 430, 505, 510, 513, 515, 529, 555, 637; EDP 419, 420, 501, 520, 524A, 531, and one from EDSP 564 or COUN 580; and EDP 698 (Thesis) or comprehensive examination.

Advancement to Candidacy: COUN 430; EDP 419, 501; fulfillment of the Graduation Writing Assessment (GWAR).

## Master of Science in Special Education (code ED_PMS06)

Students in this master's degree program work toward attaining leadership positions in public and private schools and agencies in the community that provide services for individuals with disabilities. The program is aimed at developing advanced skills and knowledge of current research in special education, and demonstration of the ability to engage in reflective inquiry. The program culminates with a thesis or comprehensive exam. The program does not result in a credential to teach students with disabilities. Students who want to teach individuals with disabilities should refer to the Education Specialist Credential Program section.

## Admission

1. Submit a program application with copies of transcripts from all educational institutions verifying a GPA of 2.85 or higher on the last 60 semester units (or 90 quarter units) of course work taken.
2. Verification of a Baccalaureate degree from an accredited institution.
3. A typed essay of three to five pages, double-spaced, outlining the candidate's reasons for entering the program, experiences and training related to the program, and anticipated outcomes from completing the program.
4. An interview with program faculty (conducted at a later date).
5. 2 letters of recommendation from persons able to attest to the student's professionalism and preparedness for advanced academic studies.
6. Attendance at an on-campus program orientation.

## Prerequisites

A bachelor's degree with 24 upper division units to include the following 3 areas of study (suggested courses in education noted in parentheses) and a teaching credential in Special Education or equivalent experience:

1. Developmental: 3 units (EDP 301 or 302)
2. Statistics and measurement: 3 units (EDP 400)
3. Individual differences: 3 units (EDSP 350)

## Requirements

Students must complete a minimum of 30 units of upper division and graduate courses with a minimum of 21 units at the 500/600-level taken at this university. Degree requirements include the following courses:

1. Foundation Courses: EDP 520; EDSP 546C, 550
2. Required Specialization Courses: EDSP 535, 542, 566
3. One of the following advanced methods courses: EDSP 563 or 565
4. One of the following pathways in consultation with faculty advisor:

Comprehensive exam pathway: fEDSP 695S (3 units) and written comprehensive exam
Thesis pathway: EDP 698 (6 units)
5. 3-6 units of electives selected with the program faculty advisor.

## CREDENTIAL PROGRAMS

## Pupil Personnel Services

The College of Education offers two of the four Pupil Personnel Services Credential programs issued by the California Commission on Teacher Credentialing (CCTC): school counseling and school psychology.

## School Counseling Credential (code 802)

The Master of Science in Counseling (School Counseling Option) and the Pupil Personnel Services School Counseling Credential Programs are designed to prepare counselors to work in elementary, middle, and high schools. Both programs support a comprehensive, developmental, and collaborative school counseling model. Based upon the American School Counselor Association's National Standards for K-12 School Counseling Programs and their 2003 National Model, our programs further support a balanced, holistic approach that considers the academic, career development, and personal/social needs of K-12 students. Graduates are expected to become proactive leaders who will advocate for their students and themselves as counseling professionals working toward equity, achievement, and opportunity for all students.

The Pupil Personnel Services School Counseling Credential (PPS/SC) is required by the California Commission on Teacher Credentialing (CCTC) for persons employed by the public schools as school counselors. Neither a Master's Degree nor a teaching credential is required for school counseling positions in the State of California. However, in keeping with national standards, students entering the CSULB Pupil Personnel Services School Counseling Credential Program need to earn a Master of Science in Counseling (School Counseling Option) concurrently with the credential, unless they already have a Master's Degree in Counseling from CSULB or another institution. Thus, applicants to the Pupil Personnel Services School Counseling Credential Program who lack a Master's Degree in Counseling must concurrently apply to the Master of Science in Counseling (School Counseling Option) Program to be considered.

Courses required for the Pupil Personnel Services School Counseling Credential are the same courses that are required for the Master of Science in Counseling (School Counseling Option). Thus, students seeking the Pupil Personnel Services School Counseling Credential are required to take all coursework required for the Master of Science in Counseling (School Counseling Option).

## Minimum Requirements for Admission

1. Copies of transcripts verifying a GPA of 2.85 or higher on the last 60 semester units (or 90 quarter units) of course work taken;
2. Evidence of completing at least a baccalaureate degree with some coursework in the social sciences, behavioral sciences, or related programs prior to beginning the school counseling credential program;
3. Three letters of recommendation;
4. A type-written personal statement;
5. Interview.

Each year the School Counseling Programs Information and Application Packet is revised. Applicants must use the application developed specifically for the year for which they are applying. Students are admitted for Fall only, although admitted students may begin coursework during the preceding summer semester. Program applications must be submitted to the College of Education Graduate Office (ED1-7). Application Deadline for Fall Admission: March 1

## CBEST

Admitted students must take the California Basic Educational Skills Test (CBEST) no later than the second available administration date following enrollment in the program.

## Requirements

1. Completion of the Master of Science in Counseling (School Counseling Option) or an approved equivalent degree.
2. All of the following (51-57 units): COUN 506, 507 (or EDP 530 or 531 for students who have advanced to candidacy prior to Fall 2005), 510, 513, 515, 555, 606, 607, 638, 643A, 644A, and 695C; EDP 400, 520, 536, 596 and 604.
3. Field Work Prerequisites:
A. School Counseling Field Work (COUN 643A) (300 hours of approved activities, average of 20 hours per week)
(1) COUN 607
(2) Certificate of Clearance
B. Advanced School Counseling Field Work (COUN 644A) (300 hours of approved activities, average of 20 hours per week):
(1) COUN 507 (or EDP 530 or 531 for students who have advanced to candidacy prior to Fall 2005), 638, 643A; EDP 536 (or concurrent enrollment in 536)
(2) Pass CBEST
4. Certification of program completion by the faculty is required. The faculty may require students to complete additional course work, field work, or demonstrate specific competencies before recommendation to the CCTC for the PPS school counseling credential.

## School Counseling Internship

For additional information, contact the School Counseling Program Coordinator.

## School Psychology Credential (code 804)

The School Psychology Credential program, accredited by the National Association of School Psychologists (NASP) and the California Commission on Teacher Credentialing (CCTC), prepares graduates to consult with teachers, parents, administrators and others regarding the learning and behavior of children in grades PreK-12. School

Psychologists develop and implement interventions and monitor the progress of students with special needs, assist students in developing productive and successful school careers, and assist teachers in the areas of behavior management and instruction. A teaching credential is not required.

## University Admission Application

In addition to filing a program application (see next section), prospective students must file an Application for Graduate Admission along with one complete set of official transcripts with the University Office of Admissions prior to February 17 for fall admission. Online applications are available at www.csumentor.edu.

## Admission

1. Copies of transcripts verifying a GPA of 3.0 or higher in the last 60 semester units (or 90 quarter units) of course work;
2. Possession of a baccalaureate degree from an accredited university;
3. Three letters of reference by persons who have engaged in professional work with the applicant;
4. A written personal statement - the application form includes a list of items to be included;
5. Screening interview - after the admission committee reviews all applications, select applicants will be invited for an interview with program faculty;
6. Possession of a master's degree in a related field or admission into the Master of Arts in Education option in Educational Psychology.

## Requirements for the Completion of the School Psychology Credential

1. Students who enter the School Psychology Credential program without an earned master's degree in one of the behavioral sciences must complete the Master of Arts in Education degree with the option in Educational Psychology;
2. Completion of the following prerequisites: EDP 405, 301 or 302, and 419; and a minimum of 60 units in graduate coursework or their equivalent (with approval of the School Psychology faculty) in the following areas of study - Educational Psychology: EDP 520, 528, and 605; Counseling: EDP 517 and COUN 601; Assessment and Intervention: EDP 524A, 524B, 525A, 525B, 527, 536, 560, 579; Practica and fieldwork: EDP 641A, 641B, 642A, and 642B; and 4 advisor-approved elective courses;
3. Students are annually evaluated for specific professional competencies. If students are found insufficient on one or more of the competencies, the student may be required to complete additional course work, practica, fieldwork, and/or other activities before being approved for the PPS intern or full credential;
4. A Certificate of Clearance and successful performance on the CBEST is required prior to enrolling in practica;
5. Fieldwork in School Psychology prerequisites: Master's degree in related field and all program courses except EDP 527, 560, and EDP 642A and 642B;
6. Completion of the National School Psychology Examination (ETS/PRAXIS II \#10400) prior to completion of the program.

## School Psychology Internship

See Program Coordinator for details.
An internship is field work performed under the supervision and with the permission of the School Psychology faculty and the school district which hires the intern. In order to be recommended to a district as a possible intern, the student must have completed the prerequisites listed above in " 1 " and " 5 ," and be approved by the School Psychology credential coordinator.

## Special Education Credentials

The Education Specialist Credential Program prepares and certifies special education teaching candidates in the CCTC Education Specialist Credential categories of Mild/Moderate and Moderate/Severe. This program does not require a Multiple or Single Subject credential as a prerequisite. An Intern Option is also available in collaboration with certain school districts. Please consult with the Elementary and Special Education Advising Center for further information.

## Preliminary Level I Education Specialist Credential and Intern Option: Mild/Moderate Disabilities (code 468) and Moderate/Severe Disabilities (code 469)

## Professional Level II Education Specialist Credential: Mild/ Moderate Disabilities (code 468) and Moderate/Severe Disabilities (code 469)

This Specialist credential program prepares candidates in the areas of Mild/Moderate and Moderate/Severe disabilities in a program approved by the California Commission on Teacher Credentialing. The program is designed so that candidates may be certified in both areas of authorization if they complete two separate field experiences, i.e., one with students with mild and moderate disabilities and one with students with moderate and severe disabilities. Upon admission to the program, candidates must identify an area of authorization and indicate whether their goal is to become certified in one or both areas. The program has two tiers: the Preliminary Level I Education Specialist Credential and the Professional Level II Education Specialist Credential. Following receipt of the Preliminary Level I Credential, candidates need to complete the Professional Level II preparation in special education within five years of the date of issuance of the preliminary credential. An Intern Option is also available in partnership with selected school districts. Please consult the College of Education Teacher Preparation Advising Center for further information. An Education Specialist Credential can also be earned in conjunction with the Integrated Teacher Education Program (ITEP). Please refer to the Liberal Studies Department for information on this.

# Preliminary Level I Education Specialist Credential Program (ESCP): Mild/Moderate and Moderate/Severe 

## Admission to the Program

Application for admission to the Education Specialist Credential Program (ESCP) should be made the semester before beginning the required Level I courses. Students may apply to the program while taking prerequisite courses, and may be admitted on a conditional basis pending their completion. Applications are available in the Teacher Preparation Advising Center (ED1-67) or online at www.ced. csulb.edu/special-education. Applications should be submitted to the Teacher Preparation Advising Center.

## Program Admission Requirements

1. Apply and be admitted to the University as a post baccalaureate (credential) student.
2. Attain a grade point average of at least 2.67 in all baccalaureate and post baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester units or 90 quarter units attempted.
3. Complete and submit the Education Specialist Credential Program application by the posted application deadline. Specify area of authorization (Mild/Moderate, Moderate/ Severe, or both).
4. Complete and provide documentation of a field experience of at least 45 hours in a K-12 general education classroom setting.
5. Submit two letters of recommendation from individuals who are well acquainted with your educational training, teaching, and other related experiences.
6. Submit a typed personal essay describing how your interest in special education began; the experiences, training and talents that you bring to the area of special education; your short-term and long-term career goals; and how the program's goals fit your personal goals.
7. Submit a negative tuberculosis skin test or chest X-ray taken within the last three years. TB clearance must be valid through advanced field study (student teaching).
8. Submit one photocopy of all university and/or college transcripts.
9. Submit proof of having taken the California Basic Educational Skills Test (CBEST). You must have attempted all three parts of the CBEST. Passage of the CBEST is required before you begin your advanced field study (student teaching).
10. Complete and pass an oral interview with program faculty.
11. Demonstrate proficiency in reading and writing English by (1) attaining a minimum passing score of 37 on each of the reading and writing portions of the CBEST exam; and/or (2) through demonstration of appropriate writing skills on your personal essay and oral communication skills in the oral interview with program faculty.
12. Demonstrate personality and character traits that satisfy the standards of the teaching profession and suitable aptitude for teaching students with special needs in public schools through the application documentation and oral interview with program faculty. Candidates must continue to demonstrate appropriate personality and character traits through completion of the program.
13. Submit an application for a Certificate of Clearance to the California Commission on Teacher Credentialing (CCTC), or provide evidence of recent fingerprint clearance. Submit a copy of the Certificate as demonstration of clearance, or a copy of a certified mail receipt as demonstration of submitting an application.
14. Submit proof of having demonstrated subject matter competence by passing all three sub-tests of the California Subject Exam for Teachers: Multiple Subjects (CSET: Multiple Subjects) or the appropriate single subject CSET exam in Math, Science, or Language Arts to meet the highly qualified teacher mandate. See the Level I advisor for more information.
Applicants will be informed in writing of the decision of the program faculty regarding acceptance into the program shortly after the interview. Upon acceptance, the candidate is required to meet with an assigned program faculty for advisement and may begin taking Level I coursework in the advised sequence.

## Preliminary Level I Education Specialist Intern Program (ESIP): Mild/Moderate and Moderate/Severe

## Admission to the Program

Interns are teachers of record employed by a local school district who earn their credential concurrent with their classroom teaching responsibilities. Application for admission to the Education Specialist Intern Program (ESIP) should be made the semester before beginning the required Level I courses. Application packets are available on the program website (www.ced.csulb.edu/ special-education). Completed ESIP applications should be submitted to the Credential Center. Students may apply to the program while taking prerequisite courses. To be considered for admission to the ESIP, candidates must provide verification of the following:

1. Employment by a collaborating school district in a qualifying special education classroom or setting.
2. Proof of passage of the California Basic Educational Skills Test (CBEST).
3. One copy of official sealed transcripts from all universities/colleges attended indicating a grade point average of at least 2.67 in all baccalaureate and postbaccalaureate course work or a grade point average of at least 2.75 in the last 60 semester units or 90 quarter units attempted.
4. Meet the U.S. Constitution requirement (through POSC 100 or 391 or equivalent course at another institution or exam).
5. Proof of character clearance (fingerprint background check).

## Program Admission Requirements

In addition to the requirements listed above, ESIP candidates will:

1. Apply and be admitted to the University as a post baccalaureate (credential) student.
2. Complete and submit to the Credential Center the Education Specialist Intern Program application by the posted application deadline. Specify area of authorization (Mild/Moderate, Moderate/Severe, or both).
3. Provide documentation of a field experience of at least 45 hours in a K-12 general education classroom setting.
4. Submit a typed personal essay describing how your interest in special education began; the experiences, training and talents that you bring to the area of special education; your short-term and long-term career goals; and how the program's goals fit your personal goals.
5. Complete and submit CCTC application 41-4.
6. Submit a money order for $\$ 55$ payable to the California Commission on Teacher Credentialing.
7. Complete and pass an oral interview with program faculty.
8. Demonstrate proficiency in reading and writing English by (1) attaining a minimum passing score of 37 on each of the reading and writing portions of the CBEST exam; and/ or (2) through demonstration of appropriate writing skills on your personal essay and oral communication skills in the oral interview with program faculty.
9. Demonstrate personality and character traits that satisfy the standards of the teaching profession and suitable aptitude for teaching students with special needs in public schools through the application documentation and oral interview with program faculty. Candidates must continue to demonstrate appropriate personality and character traits through completion of the program.
10. Demonstrate proficiency in reading and writing English by (1) attaining a minimum passing score of 37 on each of the reading and writing portions of the CBEST exam; and/or (2) through demonstration of appropriate writing skills on your personal essay and oral communication skills in the oral interview with program faculty.
Applicants will be informed in writing of the decision of the program faculty regarding acceptance into the program shortly after the interview. Upon acceptance, the candidate is required to meet with an assigned program faculty for advisement and may begin taking Level I coursework in the advised sequence.

## Course Requirements in the ESCP and ESIP Programs

To be considered for full acceptance in the ESCP and ESIP programs students must have completed all prerequisite courses: EDP 301 (or HDEV 307I or PSY 361) or EDP 302, EDSP 350, 454, and ETEC 444.

Fully admitted candidates must complete the core courses: EDP 405; EDSP 480, 564, 567, 569; EDEL 452, and 462.

Students in the ESIP program must identify and work closely with a site-based support team, comprised of their site support coach, principal, and other school and district support personnel throughout their Level I credential program.

## Advanced Field Study (Student Teaching) Requirements in the ESCP and ESIP Programs

The final phase of the ESCP and ESIP programs is advanced field study (student teaching). Candidates are required to student teach for 5 days a week for the length of the semester(s) that they are enrolled in advanced field study courses. ESCP candidates student teach as a traditional student teacher with a master teacher. ESIP
candidates use their own K-12 M/M or M/S special education classroom setting in which they are the teacher of record as their student teaching placement.

A separate application is required to advance to student teaching. Applications for student teaching must be submitted by the posted deadlines during the semester prior to which the candidate wishes to student teach. Application packets are distributed at program Field Study Information meetings, which are announced in program courses and posted on the program website. Upon notification of acceptance in student teaching, candidates register for Advanced Field Study: EDSP 587 A \& B or EDSP 588 A \& B.

To be eligible for advanced field study (student teaching), candidates must:

1. Pass CBEST.
2. Complete all program prerequisite and core courses. A student must have a 3.0 grade point average, with no grade below " $C$ ", in the core courses to advance to student teaching. A grade of "D" or "F" in any of the core courses will result in the student being dropped from the program. The overall grade point average must continue to meet the program admission standard.
3. Have on file a negative tuberculosis skin test or chest X-ray valid through completion of student teaching.
4. Meet the U.S. Constitution requirement (through POSC 100 or 391 or equivalent course at another institution or exam).
5. Submit proof of character clearance (fingerprint background check).
6. Submit a student teaching application by the appropriate deadline.
To be eligible for the Preliminary Level Education Specialist Credential, candidates must successfully meet all program requirements, including passing student teaching, and pass the Reading Instruction Competency Assessment (RICA). Candidates may take the RICA at any time prior to applying for the credential. RICA information booklets are available in the Teacher Preparation Advising Center (ED1-67).

## Professional Level II Education Specialist Credential: Mild/Moderate and Moderate/ Severe

Professional Level II Education Specialist Credential preparation is intended to enable new Education Specialist teachers to apply their Level I preparation to the demands of their professional positions while also developing as reflective practitioners in advanced skill areas and knowledge. The Level II program incorporates several courses in the Masters of Science in Special Education program and students are encouraged to apply to the M. S. in Special Education program.

## Application and Admission

Candidates are encouraged to apply for admission to the Professional Level II Education Specialist Credential program in the semester immediately prior to their anticipated completion of Level I. The CCTC requires that candidates complete Level II within five years of the completion of Level I. Candidates must be employed for at least 2 years under a Level I credential to be granted a Level II credential. Upon completion of the Level I credential, candidates have 120 days of employment to select a support provider and develop
a Level II Individualized Induction Plan. To be considered for admission, candidates must provide verification of the following:

## Prerequisite Conditions and Requirements

1. Admission to the University
2. Overall GPA of 2.85 in college and university course work (last 60 units)
3. Completion of Preliminary Level I Credential or Certificate of Eligibility
4. Employment in a special education position in the area listed on your Level I credential
5. HSC 411 A or B (Health Science requirements)
6. CPR certification
7. Two letters of recommendation (from employer and a university faculty member at previous institution)
8. Interview with program faculty.

## Professional Level II Education Specialist Credential Requirements

1. Complete EDSP 546C Practicum in Special Education and complete an Individualized Induction Plan. Select area of emphasis (mild/moderate or moderate/severe); identify specialization and action research focus; and identify nonuniversity activities.
2. Complete the following core courses: EDSP 550 and 535.
3. Complete one specialization course: EDSP 542 or 566
4. Complete one advanced methods course: EDSP 563 or 565
5. Participate in an Exit interview with University Faculty Mentor and District Support Provider.

## Administrative Services Credential

Certification of school administrators is established in a two-level Administrative Services Credential.

The Preliminary Administrative Services Certificate (first tier) has no expiration and authorizes the holder to seek an administrative position. The Certificate informs the employing school district/agency of eligibility to serve. The Certificate must be registered with the CCTC at the time the candidate accepts employment as an administrator. The CCTC will then issue the Preliminary Administrative Services Credential authorizing the candidate to serve as an administrator. Once issued, the Preliminary Credential is valid for five (5) years and it is not renewable.

The Professional Administrative Services Credential (second tier) cannot be pursued until the candidate is employed in a position requiring an administrative credential. Once issued it is valid for five years and is renewable subject to fulfillment of professional development requirements.

## Preliminary (code 501)

Certification under this credential authorizes the candidate to serve in any position requiring the Administrative Services Credential. The program is oriented toward the following positions: elementary and secondary principals, assistant principals, supervisors of instruction, curriculum directors, and other building level positions. The program has been revised to meet the new Commission on Teacher Credentialing program standards. Approval pending. See Department for further information.

## Clear Admission

Preference will be given to individuals with 3 or more years of classroom teaching and/or related educational experiences.

1. Complete the Conditional Admission to Program requirements (\#'s 1-4) as listed for the MA in Education, Option Educational Administration;
2. Possess a valid teaching credential, or pupil personnel, or library media teacher, or health services credential, or vocational education instructor's credential or clinical rehabilitative services credential.

## Requirements

Prerequisite: Enrollment in courses is contingent upon acceptance into the Educational Administration Program or permission from the program faculty. Candidates must be admitted into the Educational Administration Program before enrolling in courses.

1. EDAD 541, 544, 580, 647, 648, 650, 677A, 680 and EDAD 649 or EDP 574.
2. Two field experiences must also be completed, EDAD 580 and 680.
3. The CBEST must be passed prior to entrance in advanced field experience (EDAD 680). The CBEST must be taken no later than the second available test administrative date following enrollment in the program.

## Exit Requirements

1. Verification of three years of successful experience in a position requiring one of the credentials listed in "Clear Admission", Item 2;
2. Satisfy the state requirement for mainstreaming;
3. Present to program faculty a professional portfolio of course and field experience projects and papers completed during the program which demonstrate candidate competency.

## Professional (code 502)

Certification under the Professional Administrative Services Credential (Tier II) authorizes the candidate to serve in any position requiring the Administrative Services Credential. The Professional Credential cannot be pursued until the candidate is employed in a position requiring an administrative credential. The program requirements must be completed within the five year authorization of the Preliminary Administrative Services Credential. Once issued, the Professional Credential is valid for five years and is renewable subject to fulfillment of professional development requirements.

## Prerequisites

1. Possession of a valid Preliminary Administrative Services Credential;
2. Written verification of employment in an administrative position by an educational agency.

## Admission

1. Program application and evidence that prerequisites have been met;
2. Current resume;
3. Personal narrative describing philosophy of leadership and academic and professional goals while in the program;
4. Copy of valid Preliminary Administrative Services Credential;
5. Written evidence of mentor's commitment to work with the candidate for the duration of the program;
6. Personal contact (phone, email, in person) with program coordinator prior to program application.

## Requirements

The Professional Administrative Services Credential Program has a unique format intended to meet the needs of the busy, practicing administrator. Candidates complete the program in 10 semester units. The program is designed to provide the candidate with professional support through an introductory two (2) unit course (EDAD 640) in which the Mentoring and Professional Induction Plan is developed. The plan is developed collaboratively among the candidate, the school district mentor, and the University supervisor. The academic core program consists of two courses, EDAD 658 and 659 , which must be completed with a grade of "B" or better. The final requirement is a two (2) unit candidate assessment (EDAD 692) in which the candidate participates in a Portfolio Exhibition.

## Outline of Specific Requirements

1. Development of the candidate's Professional Induction Plan during EDAD 640.
2. Completion of the following courses:
A. EDAD 640;
B. Core Course EDAD 658;
C. Core Course EDAD 659;
D. EDAD 692;
3. Presentation of Administrative Portfolio during EDAD 692.

## Exit Requirements

1. Provide verification of two years of successful full time experience in a position requiring the Administrative Services Credential;
2. Present to program faculty, school district mentor, and a panel of other candidates a professional portfolio containing artifacts that demonstrate competency in each of the six administrative services credential standards and satisfactory progress toward attaining goals identified in the candidate's Professional Induction Plan developed in EDAD 640.

## Library Media Teacher Services Credential (code 700)

The 28-unit program in Library Media prepares students for service as a library media teacher, grades K-12, in the State of California For additional information go to www.csulb. edu/lmt.

## Admission

1. Submit a University Application, March 1 for Fall or October 1 for Spring (a maximum of six units may be completed through Open University/Extension Services prior to enrollment into the University);
2. Completion of a bachelor's degree;
3. Possession of a valid California teaching credential;
4. Passage of CBEST;
5. Overall 3.0 GPA in the last 60 semester or 90 quarter units of course work or 3.0 GPA in the completion of first 15 units of basic teaching credential course work;
6. Three letters of recommendation;
7. A one page personal statement and resume;
8. Screening interview.

Submit all materials (2-7) to the College of Education Graduate Office.

## Requirements

1. Core Course (3 units): EDCI 625, or equivalent;
2. Specialization Courses (21 units): ELIB 510, 520, 530A, 530B, 540, 550, 570;
3. Field Experience (4 units): ELIB 580.

A working knowledge of word processing, databases, spreadsheets, desktop publishing, presentation software, Internet searching and e-mail usage is expected.

## Graduate Certificate Community College (code COEDCT02)

The community college graduate certificate is designed to prepare graduate students to work in community college settings as teaching faculty or counselors. Courses offered in this program provide students with an overview of the community college and its role in the American higher education system. Students will gain insights and experiences in the classroom and in fieldwork that will strengthen their knowledge and skills in working with community college students, faculty, and staff. The certificate program consists of 18 units; 9 units are from the master's degree program and must be approved by the student's master's degree program graduate advisor; and 9 units are specific to the study of college students, the community college, and fieldwork. All students will be required to:

1. Submit a Graduate Certificate in Community College application to the Office of Graduate Studies by April 1 for fall consideration or October 15 for spring consideration
2. Be enrolled in a master's degree program or have an earned master's degree in a discipline leading to teaching or counseling in post-secondary education settings.
3. Complete 9 units of coursework in Educational Psychology: Introduction to the Community College (COUN 552), Students in U.S. Higher Education (COUN 548), and a fieldwork class that is counseling or teaching focused (COUN 644B).
4. Complete an additional 9 units approved by their master's degree program graduate advisor for consideration to fulfill the 18 units required for the certificate. These courses may include pedagogy, learning theory, instructional management, and/or teaching methodology courses in the student's major area of study, or any other courses in the discipline deemed appropriate by the master's degree program graduate advisor.

## Graduate Certificate for Career Guidance Specialist (code COEDCT01)

This option is under consideration for suspension or discontinuance and selected courses will not be offered in the 2005-06 academic year.

## Admission

1. File an Application for Graduate Admission, along with two complete sets of official transcripts, with the University Office of Admissions no later than March 1 for fall semester or October 1 for spring semester;
2. Transcripts must verify a GPA of 2.85 or higher on the last 60 semester (or 90 quarter) units of course work taken;
3. Evidence of completing at least a baccalaureate degree prior to beginning the Graduate Certificate program;
4. Two letters of recommendation (send only after notification by the program);
5. A type-written personal statement (send only after notification by the program);
6. Screening interview(s) (upon notification by the program);
7. Items 1-5 above must be on file in the department no later than November 1 for the following spring semester, or April 1 for the following fall semester;
8. Applicants are allowed only nine semester units credit applied to curriculum requirements completed prior to admission into the first semester of the program.

## Requirements

1. 19 core course units: COUN 529, 530, 531, 637, and 643C;
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
3. Approved electives in the Departments of Educational Psychology, Administration and Counseling; Human Resources Management; Occupational Studies; Psychology or Sociology as needed to fulfill 19 units upon waiver of any core course units granted upon admission to certificate program.

## Joint Doctor of Education in Educational Administration and Leadership (code EDADPH01)

This joint doctoral program is a collaborative partnership between the University of California and selected campuses of the California State University (CSU) system. The program has many options designed to prepare current and future K16 educational leaders to develop and nurture organizations that can serve the diverse populations of southern California. Program graduates will be reflective scholar practitioners aware of the complex challenges of curricula, finance, organizational dynamics, and effective collaborative partnerships with local, state, and national stakeholders in California K-16 school systems. Emphasis will be placed on the expanding and changing role of education as an intervention for social change in meeting the multifaceted needs of society. Graduates, in a cohort learning community, will experience an interdisciplinary approach to educational leadership, teaching and learning, organizational development and management, and research.

California State University, Long Beach provides the direction for the higher education leadership option. Candidates for this option/program will be selected by the Joint Admissions Committee and will be required to (a) meet the general admissions requirements of the UCI Graduate Division and (b) be recommended for admission by the Program's Joint Graduate Admission Committee. Standards of excellence and criteria such as the following will be considered for graduate review: (a) completion of the Master's Degree study in education, normally from one of the participating CSU campuses; (b) a minimum grade point average of 3.0 in coursework taken for the baccalaureate degree; the GPA in Master's Degree study will also be considered; (c) three letters of recommendation from individuals familiar with the applicant's ability to perform graduate level work; (d) a specified minimum
total score on the verbal and quantitative sections of the Graduate Record Examination aptitude test; (e) quality of written materials required to be submitted by the applicants; and (f) a successful interview with at least one member of the Program's Joint Graduate Admissions Committee.

A prescribed sequence of courses for this program is designed for three years of study including summers. After completion of all course work, the candidate advances to candidacy and undertakes the dissertation. All candidates must be formally in residence (enrolled in the equivalent of at least one 4-unit course) at the University of California, Irvine (UCI) as well as at a CSU campus for no less than three quarters/two semesters. A typical student course of study would consist of approximately 18 courses plus the dissertation beyond the Master's Degree.

A joint Memorandum of Understanding addresses program issues and requirements. See the Ed.D. Advisor in the Educational Psychology, Administration and Counseling Department for details and the Educational Psychology, Administration and Counseling website at http://www.edpac. csulb.edu.

## Departmental Courses

## Counseling

COUN 191 Career and Personal Explorations
COUN 300 The Fundamentals of Peer Advising and Counseling
COUN 357 Self Management
COUN 430 Orientation to Counseling
COUN 502 Vocational Aspects of disability
COUN 504 Family Systems Approach to School Discipline Problems
COUN 505 Job Development and Consultation
COUN 506 Counseling in School Settings
COUN 510 Laws and Ethics for Counselors
COUN 511 Counseling the Alcohol/Chemically Dependent Person
COUN 512 Child and Spousal/Partner Abuse
COUN 513 Introduction to Clinical Interviewing
COUN 514 Medications and Counseling
COUN 515 Counseling Theory
COUN 516 Counseling the Adult
COUN 522 Counseling Methods and Techniques
COUN 529 Assessment in Career Counseling
COUN 530 Career Development and Decision Theory
COUN 531 Career Information Resources
COUN 538 Student Development in Higher Education
COUN 543 Human Sexuality Counseling
COUN 547 Student Development Theory
COUN 548 Students in U.S. Higher Education
COUN 549 Management of Student Development in Higher Education
COUN 552 Introduction to the Community College
COUN 555 Cross-Cultural Counseling
COUN 556 Counseling Children and Adolescents
COUN 557 Counseling Couples
COUN 580 Vocational Work Evaluation Systems
COUN 593 Seminar in Professional Development in Counseling and Human Services

COUN 601 Trauma and Grief counseling
COUN 606 Current Issues in Professional School Counseling COUN 607 School Counseling Practicum
COUN 608 Seminar and Practicum in Marriage and Family Therapy COUN 609 MFT Practicum
COUN 615 Seminar in Home-School - Community Relations COUN 634 Family Systems Therapy: Theory and Practice
COUN 637 Career Counseling Practicum
COUN 638 Group Counseling
COUN 639 Seminar in Organization of Pupil Personnel Services
COUN 643A-D Counseling Field Work
COUN 644A-D Advanced Counseling Field Work
COUN 690 Seminar in School Counseling Supervision: Theory and Practice
COUN 692 Special Topics in Counseling
COUN 693 Advanced Seminar in Professional Development and Counseling
COUN 695C Seminar in Professional Development in Counseling and Human Services

## Educational Administration

EDAD 541 Leadership, Decision Making, and Collaboration EDAD 544 Legal Aspects of Education: Equity and Access EDAD 580 Introduction to Field Experience in Administration EDAD 590 Special Problems in Educational Administration EDAD 640 Mentoring and Professional Development Planning for the New Administrator
EDAD 647 Human and Financial Resources
EDAD 648 Schools as Organizations: Development, Management, and Assessment
EDAD 649 Urban Schools and the Community: Social, Political, Policy Issues
EDAD 650 Instructional Leadership and Assessment EDAD 658 Organizational Development, Culture, and Change EDAD 659 Educational Governance, Politics and Policy EDAD 680 Advanced Field Experience in Administration EDAD 692 Administrator Portfolio Development and Exhibition EDAD 693 Developing Teacher Leadership in Middle Level Education
EDAD 695 Master's Research Study in Educational Administration EDAD 677A Curriculum/Program Development and Evaluation

## Educational Psychology

EDP 301 Child Development and Learning a Cross-Cultural Perspective
EDP 302 Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective
EDP 305 Educational Psychology
EDSP 350 Education of Exceptional Individuals
EDP 400 Fundamentals of Educational Statistics, Measurement and Evaluation
EDP 405 Positive Strategies for Classroom Management
EDP 419 Educational Statistics
EDP 420 Tests, Measurement and Evaluations

COUN 430 Orientation to Counseling
EDP 490 Special Topics in Educational Psychology
EDP 500 Educational Research
EDP 517 Seminar in School Counseling
EDP 519 Quantitative Educational Data Analysis I
EDP 520 Research Methods in Education
EDP 524A Psychoeducational Assessment
EDP 525A Psychoeducational Diagnosis in Multicultural Settings
EDP 527 Clinical Practice in School Psychology
EDP 528 Orientation to Professional School Psychology
EDSP 535 Collaborative Partnerships and Effective Communication in School Settings
EDP 536 Collaborative Consultation in the Schools
EDP 541 Seminar in Educational Measurement and Assessment
EDP 560 Behavior Analysis Positive Behavioral Interventions
EDP 572 Advanced Study of Teaching English Learners
EDP 579 Curriculum-Based Academic Assessments \& Interventions
EDP 595 Qualitative Research Methods
EDP 596 Program Evaluation in Education
EDP 604 Seminar in Human Development
EDP 605 Seminar in Consultation on School Learning
EDP 619 Quantitative Educational Data Analysis II
EDP 641 Practicum in School Psychology
EDP 642A,B Field Work - School Psychology

## Foundations of Education

EDP 432 Social and Cultural Diversity in Educational Settings
EDP 485 Theoretical Foundations of Language Minority Education
EDP 573 Intercultural Communication in Education
EDP 574 Sociological Foundations of Education
EDP 575 Intellectual Foundations of Educational Reform, 19th Century to Present
EDP 576 Education and Diversity: Historical and Contemporary Perspectives
EDP 577 Educational Linguistics
EDP 578 Literacy and Linguistics
EDP 582 Comparative International Education
EDP 583 Global Education
EDP 589 Adult Literacy and Language Diversity
EDP 672 Language and Educational Policies

## Library Media

ELIB 497 Independent Study
ELIB 500 Foundations of Information
ELIB 510 Selection of Materials and Information Sources
ELIB 520 Information Literacy and Reference Services
ELIB 530A Library Media Materials for Elementary Grades
ELIB 530B Library Media Materials for Secondary Grades
ELIB 540 Organization of Information
ELIB 550 Library Media Center Management
ELIB 570 Library Media Technologies
ELIB 580 Field Experience in the School Library Media Center

| Research |
| :--- |
| EDP 400 Introduction to Educational Measurement and Statistics |
| EDP 419 Educational Statistics |
| EDP 420 Tests, Measurements and Evaluations |
| EDP 500 Educational Research |
| EDP 519 Quantitative Educational Data Analysis I |
| EDP 520 Research Methods in Education |
| EDP 541 Seminar in Educational Measurement and Assessment |
| EDP 595 Qualitative Research Methods |
| EDP 619 Quantitative Educational Data Analysis II |
| EDAD 695 Masters Project |
| EDP 696 Thesis Study: Plan, Development and Organizing Aspects |
| EDAD 697 Directed Research |
| EDP 697 Directed Research |
| EDAD 698 Thesis |
| EDP 698 Thesis |
| EDP 699 Project |

## Educational Technology

EDSP 542 Assistive Technology and Augmentative Communication ETEC 110 Introduction to Computers as Tools ETEC 444 Computer Technology in Education, Level I ETEC 449 Technology Applications for Educators ETEC 523 Computer Technology in Education, Level II
ETEC 525 Social and Cultural Implicaitons of Educational Technology
ETEC 530 Educational Technology Leadership
ETEC 551 Education and the Internet
ETEC 553 Instructional Design
ETEC 580 Field Experience in Educational Technology
ETEC 623 Developing Technology-Based Learning
ETEC 695 Seminar in Educational Technology
ELIB 570 Library Media Technologies

## General

EDP 180 Family School Partnerships
EDP 190 Current Topics in Education
COUN 191 Career and Personal Explorations
COUN 357 Self-Management
COUN 360I Life and Career Decisions
EDP 3731 Nonverbal Communication: Interaction of Mind and Body
EDP 390 Current Topics in Education
EDP 492 Field Studies in Human Services/Mental Health

## Joint Doctoral

EDP 701 Organization and Administration of Education: Functions and Issues
EDP 702 Introduction to the Community College
EDP 703 Policy Issues in Community Colleges

EDP 704 Exploration of Campus Cultures: Impact and Influence
EDP 705 Finance in Education
EDP 706 Program and Student Assessment
EDP 707 Student Learning and Development Theory in Higher Education
EDP 708 Leadership in Education
EDP 709 Collaborative Reforms: Designing and Implementing Responsive Curricula

EDP 711 Field Research Study in Education I
EDP 712 Field Research Study in Education II
EDP 790 Special Topics in Higher Education
EDP 797 Directed Individual Study
EDP 798 Doctoral Dissertation

## Education Specialist (Special Education)

EDSP 303 Preparing to Teach Special Populations in the General Education Classroom

EDSP 350 Education of Exceptional Individuals
EDSP 355 Collaborative Models of Inclusion Education:
Partnerships and Strategies for Teaching All Students
EDSP 454 Development of Communication Skills in Bilingual Classrooms

EDSP 480 Foundations of Inclusive Education in a Diverse Society
EDSP 535 Collaborative Partnerships and Effective Communication in School Settings

EDSP 542 Assistive Technology and Augmentative Communication
EDSP 546A-F Practicum in Special Education
EDSP 550 Emerging Perspectives in Special Education
EDSP 558 Curriculum and Instruction for Students with Disabilities
EDSP 563 Advanced Methods of Teaching Individuals with Significant Disabilities
EDSP 564 Assessment and Evaluation of Students with Disabilities
EDSP 565 Advanced Methods Mild/Moderate
EDSP 566 Career Planning and Transition for Youth and Adults with Disabilities

EDSP 567 Curriculum and Instruction: Literacy
EDSP 569 Curriculum and Instruction: Math
EDP 571 Advanced Approaches for Special Populations
EDSP 587 A,B Advanced Field Study Mild/Moderate
EDSP 588 A,B Advanced Field Study Moderate/Severe
EDSP 695S Seminar in Special Education

## Counseling Courses (COUN)

## LOWER DIVISION

## 191. Career and Personal Explorations (3)

Prerequisite or Corequisite: Any foundation (G.E. Category A1, A2, A3, or B2) class.
Designed for, but not limited to, entering and undeclared students. Exploration of issues, topics and tasks related to personal, educational and career choices. Includes educational and career planning, exploration of personal characteristics and individual differences, life and work values and interests, decision making, goal setting, and job/career search preparation.
Not open for credit to students with credit in EDP 360I/COUN 3601.

## UPPER DIVISION

## 300. The Fundamentals of Peer Advising and Counseling (3)

Introduction to theories of student development, academic advising, multiculturalism, and counseling. Basic skill development and knowledge of policies and procedures to provide effective peer advising. Includes a service-learning component that places students in advising and other peer support services internships on campus.
Letter grade only (A-F).

## 357. Self-Management (3)

Not open for credit to students with credit in PSY 357.
Prerequisite: PSY 100. Introduction to theory, research and application of self-management procedures. Methods for integrating and managing the cognitive, emotional, behavioral, and physiological aspects of an individual will be discussed. Topics will include systematic self-observation, career decision-making, interpersonal relations, time management, stress and emotion management, and habit change and maintenance.
360A. Life and Career Decisions (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Conducting in-depth self analysis designed to facilitate career and personal choices. How education and personal life experiences influence career and life decisions. Career development theories and assessments with applications to student career development and choices. Sound decision-making and goal-setting processes. Letter grade only (A-F).

## *430. Orientation to Counseling (3)

A survey of the specialties, functions, roles, models and activities commonly employed in the counseling profession. The course will also include practice in rudimentary active listening skills, a survey of historical and conceptual frameworks, voluntary participation in community-educational services, and developing a professional orientation perspective, and exploring the special needs of clients and other professional considerations.

## GRADUATE LEVEL

## 502. Vocational Aspects of Disability (3)

Medical, psychological, and sociocultural aspects of disabling conditions related to vocational activities. Emphasizes identification of functional limitations, attitudinal barriers to employment, and methods of remediating disabling conditions.
Letter grade only (A-F).

## 504. A Family Systems Approach to School Discipline Problems (3)

Designed to help teachers and parents develop appropriate student behavior. A communications based family systems approach to discipline.
Letter grade only (A-F).

## 505. Job Development and Consultation (3)

Job development methods leading to employment. Includes resume writing, job interviewing, networking, and employer consultation methods. Conceptual and applied distinctions between employability and placeability are addressed.

## 506. Counseling in School Settings (3)

Prerequisite: Official admission to the School Counseling Program. Overview of issues related to school counseling and the role of the professional school counselor. Includes a practicum component designed to develop counseling skills and promote helping relationships. Field experiences are required. School Counseling students are expected to take this course in their first semester in the program.
Letter grade only (A-F).
507. Career and Academic Counseling in K-12 Settings (3)

Prerequisite: COUN 506.
Emphasis on career development theory and practice, the world of work, post-school planning, and academic counseling in K12 settings. Application of theory through culturally sensitive interventions.
Letter grade only (A-F).

## 508A. Family Systems Therapy Applied to Lifespan Development (3)

Family systems assessment and counseling applied to lifespan development theories.
Letter grade only (A-F).

## 508B. Family Systems Methods (3)

Prerequisite: COUN 508A or consent of instructor.
The application and practice of family systems therapeutic methods.
Letter grade only (A-F).

## 510. Law and Ethics for Counselors (3)

An introduction to professional identity as counselors and examination of laws and ethics related to the counseling profession and its specializations (MFT, career/vocational rehabilitation, student development and administration, and school counseling).
Letter grade only (A-F).

## 511. Counseling the Alcohol/ Chemically Dependent Person (2)

Survey of the theories, etiologies, and major treatment approaches for counseling and preventing alcohol and chemical dependency, and the role of family and community resources, referrals, and prevention programs.
Letter grade only (A-F.)

## 512. Child and Spousal/Partner Abuse (1)

Child and spousal/partner abuse assessment indicators, laws, community resources, mandatory reporting requirements for child abuse and spousal/partner violence, assessment, detection, and interventions for the child, family, spouse/partner, and the offender. Designed for licensure requirements for mental health practitioners and graduate students.
Letter grade only (A-F).

## 513. Introduction to Clinical Interviewing (3)

A foundation course that provides training in core interviewing skills including active listening, case exploration, goal setting, conducting a mental status exam, and assessing for self-harm.
Letter grade only (A-F)

## 514. Medication and Counseling (2)

Prerequisites: COUN 513 or consent of instructor.
An examination of the categories of psychotropic medications: antidepressants including antipsychotics, anxiolytics, and mood stabilizers. Major side-effects of these medications and a brief overview of their medical management are reviewed. Herbal alternatives to pharmacologic agents will be explored. Identification of information resources for counselors and clients.
Letter grade only (A-F).
515. Counseling Theories (3)

Prerequisite: COUN 513.
Major counseling theories examined and the competencies of each developed for use in helping relationships.
Letter grade only (A-F).
516. Counseling the Adult (3)

Prerequisite: COUN 515.
Theory and practice of counseling and guidance of the adult. Letter grade only (A-F).

## 522. Counseling Methods and Techniques (3)

Prerequisites/Corequisites: COUN 513, 515.
An applied course which provides practice in the methods and techniques of the major theoretical approaches employed in counseling.
Letter grade only (A-F).

## 529. Assessment in Career Counseling (3)

Prerequisite: EDP 420 or equivalent or consent of instructor.
The selection, administration, scoring, and interpretation of assessment instruments in career counseling. Assessment areas include interests, values, personal characteristics, and aptitudes and abilities. Techniques for developing and using special assessment instruments will also be covered.
Letter grade only (A-F).

## 530. Career Development and Decision Theory (3)

Emphasis on life planning concepts as related to the world of work, theories of career development and the career decision process. Letter grade only (A-F).

## 531. Career Information Resources (3)

Knowledge, use and management of information resources in the career development field.
Letter grade only (A-F).

## 538. Student Development in Higher Education (3)

Survey of student development in public and private colleges and universities, focusing on historical, philosophical and theoretical foundations; roles and functions; legal, ethical, and organizational issues.
Letter grade only (A-F).

## 543. Human Sexuality Counseling (3)

Prerequisite: COUN 515.
Training in human sexuality education, counseling, and therapy. An examination of personal attitudes and values. The study of the physiological, psychological, and sociocultural variables associated with sexual behavior, sexual identity, and sexual disorders. For MFCC certification only.
Letter grade only (A-F).
547. Student Development Theory in Higher Education: Theory to Practice (3)
Prerequisite: COUN 538.
Explores student development theory and the application of theory to practice for programs and services in student affairs/higher education. Esxamine cognitive, psychosocial, topology, and person/environment theories and their application to traditional and non-traditional student populations. Critiques of these models for viability and usefulness with diverse student populations will be considered. Program models allow for translation of theory to practice guides students in designing effective program for college student populations as a requirement for this class.
Letter grade only (A-F).

## 548. Students in U. S. Higher Education (3)

Prerequisite: COUN 538.
Focus on concepts of community and culture in United States college with an emphasis on understanding the diversity of student population to include age, gender, ethnic culture, sexual orientation, and people with disabilities.
Letter grade only (A-F).

## 549. Management of Student Development in Higher Education (3)

Analysis of management and organizational theory and practice as it pertains to student development in higher education. Includes study of human and physical resources management.
Letter grade only (A-F).

## 552. Introduction to the Community College (3)

Prerequisite: Enrollment in M.A., M.S. or Credential Programs.
Introduction, orientation, and survey of California and American community college. Components and modules include teaching and learning, leadership and governance issues, organization and administration, student development, classroom research, institutional resources, and student diversity and equity in the community college.
Letter grade only (A-F).

## 555. Cross-Cultural Counseling (3)

Prerequisites: COUN 510, 513, 515; COUN 506 for School Counseling Option, COUN 538 for SDHE Option, or their equivalent upon approval of the instructor.
Study of U.S. and international cultural factors, perspectives and personal and societal values that affect the counseling relationship, methods, and outcomes. These factors include historical, geographical, socio-psychological, educational and counseling factors from various cultural groups that students will encounter in their professional settings.
Letter grade only (A-F).

## 556. Counseling Children and Adolescents (3)

Prerequisites: COUN 515 and 522, or consent of instructor.
Theories and application of the methods and techniques of the major theoretical approaches employed in counseling children and adolescents.

## 557. Counseling Couples (3)

Prerequisites: COUN 515.
Couple development theories, issues, and practices pertaining to counseling couples.
Letter grade only (A-F).

## 559. Play and Art Therapy for Children/Adolescents (3)

Prerequisites: COUN 508A and 556 or consent of instructor.
Experiential survey and the practice of play and art techniques employed in therapy as applied to theoretical orientations and problematic behavior.
Letter grade only (A-F).

## 580. Vocational Work Evaluation Systems (3)

Prerequisites: COUN 430, 529.
Concepts and processes of vocational work evaluation systems as they pertain to the assessment of occupationally disabled clientele. Role and functions of work evaluators in industry, private and public vocational rehabilitation agencies, schools, and personnel/ training activities will be examined in regard to their theoretical and situational applications.
Letter grade only (A-F).

## 593. Seminar in Professional Development in Counseling and Human Services (1)

Prerequisite: COUN 538 and 548 (must have completed or concurrently enrolled)
Experiential orientation to profession of counseling and student development/student affairs in higher education with an emphasis on opportunities to observe interactions between organizational cultures, student cultures, and the functions and role of student affairs professionals in the work environment. Students meet in seminar format to discuss and analyze observations and intentional learning activities from shadowing a professional and completing a fifty-hour practicum.
Letter grade only (A-F).

## 601. Trauma and Grief Counseling. (3)

Prerequisites: COUN 556 or consent of instructor. Required course for students in the Marriage and Family Therapy Program and a recommended course for graduate students in the other Counseling Programs.
Overview of developmentally informed models of trauma response,
training in identifying and assessing problematic responses to trauma and loss, and guidelines for working with traumatized children, adolescents and families in various settings. Current treatment approaches for treatment of acute and chronic forms of post-traumatic distress and traumatic bereavement will be covered Will not cover treatment of childhood sexual or physical abuse. Letter grade only (A-F).

## 606. Current Issues in Professional School Counseling (3)

Prerequisite: COUN 506.
A variety of current issues in school counseling presented in learning modules. Topics include assessment, education of students with disabilities, school violence prevention, crisis counseling, comprehensive counseling plans, and classroom management.
Letter grading only (A-F).

## 607. School Counseling Practicum (3)

Prerequisites: COUN 506, 515.
Practical application of counseling theory to work with children and adolescents. Supervised counseling, consultation, and case management experiences conducted in the educational psychology/counseling clinic and in school settings.
Letter grade only (A-F).
608. Seminar in Marriage and Family Therapy (3)

Prerequisites: COUN 510, 511, 512, 513, 515, 522.
Recommended: COUN 556 and 634.
Theories, research, treatment planning, and therapeutic methods of MFT counseling utilizing major psychotherapeutic approaches regarding assessment, diagnosis, and treatment of various mental health problems.
Letter grade only (A-F).

## 609. MFT Practicum (2)

Prerequisites: COUN 510, 511, 512, 513, 515, 522.
Practicum application submitted no later than March 1 for the following fall semester, and October 1 for the spring semester. May be taken concurrently with COUN 608. MFT counseling in an appropriate non profit setting with closely supervised experiences prior to MFT fieldwork. Students will be required to assess, diagnose, describe appropriate interventions and conduct counseling services for individuals and/or families.
Credit/No Credit grading only.

## 615. Seminar in Home-School - Community Relations

 (3)Prerequisite: COUN 430.
Theory and research into the social influences of home, school, and community on child behavior; techniques to foster close homeschool relations and use of community agencies. (Open only to School Counseling Master's Degree students who have advanced to candidacy prior to Fall 1999 and to PPS/SC credential-only students admitted to the program prior to Spring 1999.)
Letter grade only (A-F).
634. Family Systems Therapy: Theory and Practice (3)

Major family systems therapy theories, research issues, and techniques for counseling families.
Letter grade only (A-F).

## 637. Career Counseling Practicum (4)

Prerequisites: COUN 510, 515, 529, 530 or 531 and EDP 524A or EDSP 564 or COUN 580.
Career counseling at the secondary and post secondary levels with closely supervised clinical experiences. Students will be required to assess, diagnose, develop treatment plans, write progress and termination reports, provide appropriate interventions and conduct counseling services for individuals seeking career/vocational guidance.

## 638. Group Counseling (3)

Prerequisites: Admission to the MS in Counseling, and/or PPS School Counseling Credential, or School Psychology Program, COUN 510, 513,515 or equivalent upon approval of instructor.
Review of theories and applications of small group processes in guidance and counseling. Laboratory practice is provided and issues and roles relating to the selection of participants, leadership, interaction methods, problem-solving, and evaluation are examined. Students will learn how to proficiently facilitate the group process and address multicultural issues in group settings.
Letter grade only (A-F).
639. Seminar in Organization of Pupil Personnel Services (3)

Prerequisite: COUN 430, 506.
Practices in organizing, administrating, supervising, and evaluating pupil personnel services programs at various educational levels.
Letter grade only (A-F). (Open only to School Counseling Master's Degree students who have advanced to candidacy prior to Fall 2005 and to PPS/SC credential-only students admitted to the program prior to and including Fall 2004.)

## 643A-D. Counseling Field Work (3)

A. School Counseling (3)

Prerequisites: COUN 607, Certificate of Clearance, EDP 536 (must be taken concurrently with either COUN 643A or 644A).
Practical experiences in counseling and guidance activities under supervision in approved school settings (total of 300 hours). Emphasis on personal and professional development as school counselors.
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Credit/No Credit grading only.

## B. Student Development in Higher Education (3)

Prerequisites: COUN 516, 538.
Practical experiences of 225 hours in counseling and guidance activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following fall semester, and October 1 for the spring semester. Not open for credit to students with credit in EDP 541. Credit/No Credit grading only.

## C. Career Counseling

Prerequisites: COUN 637.
Practical experiences in counseling and guidance activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Not open for credit to students with credit in EDP 541. Credit/ No Credit grading only.

## D. Marriage and Family Therapy

Prerequisites: COUN 608, 609.
Practical required experiences of 150 hours in counseling activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following summer or fall semester and October 1 for the spring semester. Credit/No Credit grading only.

## 644A-D. Advanced Counseling Field Work (3)

## A. Advanced School Counseling

Prerequisites: COUN 507 (or EDP 530 or 531 for students who have advanced to candidacy prior to Fall 2005), 638, 643A; EDP 536 (must be taken concurrently with either COUN 643A or 644A); pass CBEST.
Continued practical experiences in counseling and guidance activities under supervision in approved school settings (total of 300 hours). Emphasis on personal and professional development as school counselors.
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Credit/No Credit grading only.

## B. Student Development in Higher Education (3)

Prerequisites: COUN 516, 538, 643B.
Continued practical experiences of 225 hours in counseling and guidance activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following fall semester, and October 1 for the spring semester. Not open for credit to students with credit in EDP 541. Credit/No Credit grading only.

## C. Career Counseling (3)

Prerequisites: COUN 638, 643C.
Continued field work under licensed/ credentialed supervisors (if required by specialty area or work setting).
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Not open for credit to students with credit in EDP 545. Credit/ No Credit grading only.

## D. Marriage and Family Therapy (3)

Prerequisites: COUN 638, 643D.
Continued practical required experiences of 150 hours in counseling activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following summer or fall semester and October 1 for the spring semester. Credit/No Credit grading only.

## 690. Seminar in School Counseling Supervision: Theory and Practice (3)

Prerequisite: Consent of instructor.
Focus on models and methods of school counseling supervision. Designed to prepare school counselors to be effective site supervisors for school counseling field work students.
Open to advanced students in the School Counseling Program as well as practicing school counselors. Letter grade only (A-F).

## 692. Special Topics in Counseling (1-6)

Advanced study of special topics in the field of counseling. Continuing education and non-degree students may enroll for units subject to suitable changes in course content.
Topics regarding continuing education for mental health providers are announced in the UCES Schedule of Classes or the University Fall, Spring, or Summer semester Schedule of Classes. May be repeated to a maximum of 12 units with different topics.

## A. Introduction to Psychodrama

## B. Advanced Psychodrama

Prerequisites: COUN 692A or consent of instructor.

## 693. Advanced Seminar in Professional Development in Counseling and Human Services (1-2)

Prerequisites: COUN 515,538,548,593, and concurrently enrolled in COUN 549.
Explore professional associations available for counselors and student affairs professionals, and will attend one on-campus professional development institute and one off-campus professional conference that is either regional or national in scope. Additionally, students will explore and demonstrate an integration of roles, philosophy, and theory for counseling and student development work. Finally students will develop a life long professional development plan.
Letter grade only (A-F).

## 695C. Integrative Seminar in Professional School Counseling (3).

Prerequisites: Advancement to candidacy; COUN 507 (or EDP 530 or EDP 531 for students who have advanced to candidacy prior to Fall 2005), 555, 638; EDP 596; and permission to enroll from School Counseling Program Coordinator. Prerequisite/Corequisite: COUN 643A.
Designed to support integration and synthesis of knowledge, skills, and attitudes learned and developed during the school counseling program, and to facilitate the transition from graduate student to counseling professional and lifelong learner.
Letter grade only (A-F).

## Educational Administration Courses (EDAD)

## GRADUATE LEVEL

## 541. Leadership, Organizational Management, and Ethics (3)

Prerequisite: Admission to the Preliminary Administrative Services Credential Program.
Examines the relationship between leadership and organizations; the role of educational leaders; a shared vision to support equitable academic achievement for all students; multiple measures to guide decision making; the relationship among political, social, economic, legal, and cultural factors and schools. Ten hours field experience required. Letter grade only (A-F).
544. Legal Aspects of Education: Implications and Applications for School Leadership
Prerequisite: EDAD 541.
Implications and applications of school law including accessing technological sources of legal information, conducting basic legal research, demonstrating operational knowledge of school law, creating a conceptual and ethical legal leadership framework, developing legal foundational knowledge.
Ten hours field experience required. Letter grade only (A-F).

## 580. Introduction to Field Experience in Administration

 (3)Prerequisite: Approval by the Program Coordinator, Department of Educational Psychology, Administration and Counseling.
First of two on-the-job field experiences. Application of leadership theory to practical settings in quasi-administrative roles. Requires 100 hours of site-based field participation.
Credit/No Credit grading only.

## 590. Special Problems in Educational Administration

 (1-3)Prerequisite: Enrollment limited to graduate students who hold a standard teaching credential and consent of instructor.
Advanced study in educational administration within specialization area. Course conducted in experimental, research and/or seminar format.
May be repeated to a maximum of 6 units for certificate and degree purposes, subject to suitable change in course content. Non-degree and non-certificate students may enroll for additional units subject to suitable change in course content. Letter grade only (A-F).

## 597A,B,C. Directed Study $(1,2,3)$

Prerequisite: Approval of program coordinator and Graduate Studies Office. Application for enrollment must be made to the Office of Graduate Studies by March 1 for the summer or fall semester or by October 1 for the spring semester.
Individual creative activity; projects, surveys, intensive reading; practical and action research in an area significant to the field of educational administration. Could also involve small group activity focused on an educational problem or issue.
May be repeated to a maximum of 6 units, with no more than 3 units in one semester or for degree purposes. Letter grade only (A-F).
640. Mentoring and Professional Development Planning for the New Administrator (2)
Prerequisite: Admission to EDAD Professional Administrative Services Program.
Development of Individualized Induction Plan based on preassessed skills and competence; plan includes assessment documents, mentoring component, goal identification based on CCTC standards, completion strategies, evidence/indicators of goal attainment and evaluation plan.
Credit/No Credit grading only.

## 647. Human and Financial Resources (3)

Prerequisite: EDAD 541.
Examines civil service systems and the role and structure of personnel administration used in public school education. Reviews bureaucracy, rules and regulations, limitations in hiring and firing, PERB decisions, case law; labor contracts and limitations imposed by those contracts. Examines costs associated with human resources and other fiscal infrastructure costs associated with the provision of free public education in California.
Letter grade only (A-F). (Lecture 2 hours; Lab 2 hours.)
648. Schools as Organizations: Development, Management, and Assessment (3)
Prerequisite: EDAD 541.
Concepts and skills of managing educational organizations. Decision making, conflict management, motivation, leadership, team building, communication, planning, and organizational change, culture and renewal. Perspectives and analysis of complex organizations and theoretical and conceptual advances in the field.
Letter grade only (A-F).

## 649. Urban Schools and the Community: Social, Political, Policy Issues (3)

Examination of characteristics of urban schools and the diversity of student populations and attitudes toward them. Study of the social, political, cultural forces impacting schools. Study of school programs and community collaboratives for delivering instruction and services.
Letter grade only (A-F).

## 650. Instructional Leadership and Assessment (3)

Prerequisite: Admission to MA and/or Preliminary Administrative Services Credential program.
Examine instructional leadership practices which have been proven successful in maximizing achievement for all students in urban schools including working with teachers to develop a learning community; planning and utilizing assessments of student progress; utilizing instructional supervision models.
Letter grade only (A-F).
658. Organizational Development, Culture, and Change (3)

Prerequisite: EDAD 640.
Explores elements that influence schools as effective organizations, transformational leadership, organizational development, learning strategies for developing successful school cultures and instructional programs. Study of larger political, social, legal and supervisory contexts of organizations; use of behavior/ management sciences.
Letter grade only (A-F).
659. Educational Governance, Politics and Policy (3)

Prerequisite: EDAD 640.
Examination of systemic impact of governance systems at federal, state, local levels; implementation and policy development strategies; politics of public education, micro-politics of school sites using theoretical and pragmatic perspectives.
Letter grade only (A-F).
677A. Curriculum/Program Development and Evaluation (3)

Prerequisite: EDAD 541. Corequisite: EDAD 677B.
Examines teaching, learning, and achievement for all students; policy impact on curriculum development, implementation, and assessment; distributed instructional leadership and accountability; multiple measures and data-driven assessment for program evaluation; closing the achievement gap; communication and partnership with stakeholders.
Ten hours field experience required. Letter grade only (A-F).
680. Advanced Field Experience in Administration (3)

Prerequisites: EDAD 541, approval by the Coordinator of Educational Administration, successful completion of EDAD 580.
Second of two on-the-job field experiences. Application of leadership theory to practical settings in quasi-administrative role. Requires three week, full-time participation at location other than candidate's own site.
Credit/No Credit grading only.

## 692. Administrator Portfolio Development and Exhibition (2)

Prerequisite: Completion of the Professional Development Plan, including the core courses, electives and/or professional development activities.
Development and presentation of Professional Portfolio reflecting and documenting progress/mastery of goals connected to CTC Administrative Standards.
Credit/No Credit grading only.

## 693. Developing Teacher Leadership in Middle Level Education (3)

Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or consent of the instructor.
Involves administrators and teachers in developing middle level teacher leadership through the lens of teacher empowerment. Theory and practice of collaborative and action research models as tools for school improvement.
Letter grade only (A-F). Same course as EDEL 693 and EDMS 693.

## 695. Master's Research Study in Educational

## Administration (3)

Prerequisites: EDP 520 or 595; advancement to candidacy in Educational Administration Option, approval of graduate advisor and written application to the Graduate Office. Application for enrollment must be made to the Graduate Office by March 1 for the summer or fall semester or by October 1 for the spring semester.
Application of action based research methods to identify, study, and analyze a school/district based problem. Preparation of culminating research study to include related literature, data collection methods, findings, recommendations and implications.
Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters. Not open for credit to students pursuing the Thesis option.

## 697. Directed Research (1-3)

Prerequisites: Consent of instructor, department chair and associate dean. Individual research or intensive study under the guidance of a faculty member.
Individual research or intensive study under the guidance of a faculty member.
May be repeated to a maximum of 3 units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made by March 1 for the fall semester or by October 1 for spring. Letter grade only (A-F).

## 698. Thesis $(3,3)$

Prerequisites: Advancement to candidacy, EDP 595 or 696, approval by director, department chair and associate dean.
Planning, preparation and completion of a thesis under supervision of a faculty committee.
Must be taken for six units. Application for enrollment must be made to the Graduate Studies Office by March 1 for the fall semester or summer session or October 1 for the spring semester. Letter grade only (A-F).

## Educational Psychology Courses (EDP)

## LOWER DIVISION

## 180. Family, School, Community Partnerships (3)

Introduces current family, school, and community partnership models and approaches that foster two-way partnerships with families and communities of diverse backgrounds. Historical, legal, and political perspectives regarding educational equity for diverse student populations.
Letter grade only (A-F).

## 190. Current Topics in Education (1-3)

Orientation to and exploration of topics relevant to the college student as a learner-scholar and decision-maker within the changing campus, community and societal milieu. Lectures, discussion, field study.
May be repeated to a maximum of 6 units with different topics. Topics will be announced in the Schedule of Classes.

## UPPER DIVISION

## 301. Child Development and Learning: A Cross-Cultural Perspective (3)

Explores the physical, cognitive, communicative/linguistic, and socio-emotional development of the child from the prenatal through adolescent period across diverse cultures with an emphasis on the learning process and developmentally appropriate teaching practices.

## 302. Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective (3)

Explores social, emotional, cognitive, and physical development in early and late adolescence across cultures with an emphasis on the learning process and developmentally appropriate teaching practices.

## 305. Educational Psychology (3)

Overview of Educational Psychology. Analysis of theories of learning as they relate to intellectual, social, and personal development of diverse learners. Emphasis on learning, motivation, and development with attention to educational practices that foster critical thinking, problem solving, and performance skills..

## 373I. Nonverbal Communication: Interaction of Mind and

 Body (3)Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration course(s), and upper division status.
History and theories of the development of mind/body integration. Enhancement of personal and interpersonal relations through lectures, discussion, films, and movement experiences. Analysis and synthesis of the interdependence of the psychological and physical processes in nonverbal communication.
Same course as DANC 373I.

## 390. Current Topics in Education (1-3)

Orientation to and exploration of topics relevant to the college student as a learner-scholar and decision-maker within the changing campus, community and societal milieu. Lectures, discussion, field study.
May be repeated to a maximum of 6 units with different topics. Topics will be announced in the Schedule of Classes.
*400. Introduction to Educational Measurement and Statistics (3)
Introductory course in educational measurement and statistical concepts. Basic concepts of measurement including descriptive statistics, norms, reliability, and validity; correlation and simple regression; derived and transformed scores; development of educational measures; interpretation of test scores.
May not be used as a substitute for EDP 419 or 420.
*405. Positive Strategies for Classroom Management (3)
Models and strategies of classroom management to promote student prosocial behaviors and academic growth. Includes information regarding developing, implementing, and evaluating behavioral interventions to increase student success in General and Special Education programs.

## *419. Educational Statistics (3)

Prerequisite: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower division statistics course.
Introduction to descriptive and inferential statistical methods with application to educational research problems. Emphasis on understanding statistical concepts, computation skills, and the use of computer programs in data analysis.
(Lecture 2 hours, laboratory 2 hours).
*420. Tests, Measurements and Evaluations (3)
Prerequisite: EDP 419.
Determination, meaning and use of fundamental statistical concepts applied to problems of measurement and evaluation. Construction, interpretation and use of standardized and teacher-made tests.

## 428. Language, Learning and the Developing Child: A

 Cross-Cultural Perspective (3)Explores the communicative-linguistic, cognitive, physical, and socio-emotional development of the child from the prenatal to adolescent periods across diverse cultures with an emphasis on language acquisition and the learning process.
Letter grade only (A-F). Not open for credit to students currently enrolled in the Liberal Studies program. Same course as LING 429, CDFS 409, and EDEL 429.

## 431. Cultural and Linguistic Diversity in Schools (3)

Multicultural education, including concepts of culture, educational equity, social justice, multiple forms of diversity, and anti-bias/antiracist curriculum. Models of English language acquisition, bilingual education theory, and instructional accommodations for diverse students. 10 hours fieldwork required.
Letter grade only (A-F). Same course as EDEL 431 and LING 431.

## *432. Social and Cultural Diversity in Educational

 Settings (3)Examination of personal attitudes toward distinct groups of people. Study of historical and structural factors that either promote or diminish equal human worth and either empower or oppress people based on class, race/ethnicity, gender, sexual orientation, ability, language, or religion.
Same course as EDEL 430.
439. SDAIE: Specially Designed Academic Instruction in English (3)
Theories of second language acquisition and practical application, including methods of teaching content to English language learners, reading and writing strategies, and curriculum development with application to K-12.
Letter grade only (A-F). Same course as EDEL 439 and EDSE 439.
*485. Theoretical Foundations of Language Minority Education (3)
Introduction to theoretical foundations of language minority instruction. Background on the historical and political context of the development of educational language policies. Models of bilingual and English language development education.
Letter grade only (A-F). Same course as LING 485.
*490. Special Topics in Educational Psychology (1-6)
Prerequisite: Consent of instructor.
Topics of current interest in educational psychology selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics will be announced in the Schedule of Classes.

## 492. Internships in the Human Services (3)

Prerequisite: Consent of instructor.
Students are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. The required fifteen hour seminar will focus on personal values, interpersonal communications skills, critical thinking, and problem solving. Development of knowledge and skills transferable to future careers will be stressed.
A minimum of 120 hours field experience is required for the semester.

## *497. Independent Study (1-3)

Prerequisites: Consent of instructor and department chair. Independent study undertaken under the supervision of a faculty member.
May be repeated to a maximum of 6 units, with no more than 3 units applicable to credential or major requirement.

## GRADUATE LEVEL

## 500. Educational Research (3)

Prerequisite: EDP 400.
Types and applications of educational research, research design, problems of internal and external validity, uses of research resources, and critiques of research studies. Recommended to be taken early in a master's degree program.
Letter grade only (A-F).

## 501. Foundations of Vocational Rehabilitation (3)

History, philosophy, and legislation of rehabilitation affecting people with disabilities served by public and private rehabilitation delivery systems.
Letter grade only (A-F).

## 517. Seminar in School Counseling (3)

Prerequisite: COUN 515.
Theory, research and techniques of counseling; use and analysis of case studies. Clinical work required.
Not open for credit to students with credit in EDP 631. Letter grade only (A-F).

## 519. Quantitative Educational Data Analysis I (3)

Prerequisites: EDP 419 and 420 or equivalent.
An advanced educational univariate data analysis course.
Hypothesis testing using analysis of variance, analysis of covariance, multiple regression, and path analysis.
Letter grade only (A-F).

## 520. Research Methods in Education (3)

Prerequisites: For majors in Educational Psychology: EDP 419 and 420, or equivalents. For other majors, with approval of program advisor: EDP 400 or equivalent.
Examination and application of educational research methodology including various types of qualitative and quantitative methods, research designs, sampling methods, inferential statistics and hypothesis testing, and the structure and content of a research proposal.
Letter grade only (A-F).

## 524A. Psychoeducational Assessment (3)

Prerequisite/Corequisite: EDP 528; Corequisites: EDP 524B and admittance to the School Psychology Program.
Theories of cognition and their implications for understanding learning, development, and diagnosis of disability. The history of intelligence testing and psychometric and socio-cultural strengths and limitations of cognitive tests.
Letter grade only (A-F).

## 524B. Psychoeducational Assessment: Clinical Applications (2)

Prerequisite/Corequisite: EDP 528; Corequisites: EDP 524A and admittance to the School Psychology Program.
Practice in administration and interpretation of individually administered cognitive tests, and tests of psychological processing and achievement. Students will practice administering tests to adults and children, be observed for proficiency, and learn to apply these results to making instructional placement and eligibility decisions.
Letter grade only (A-F).
525A. Psychoeducational Assessment of Culturally and Linguistically Diverse Students (3)
Prerequisites: EDP 524A, 524B. Corequisite: EDP 525B.
Assessment theory and practice of culturally and linguistically diverse (CLD) individuals. Interpreting assessments to make eligibility, instructional and accountability decisions consistent with ethical, legal and measurement standards. Discussion of sociocultural issues and exemplary programs for CLD.
Letter grade only (A-F).
525B. Psychoeducational Assessment of Culturally and Linguistically Diverse Students: Clinical Applications (2)

Prerequisites: EDP 524A and EDP 524B. Corequisite: EDP 525A.
Application of psychoeducational assessment practices within a clinical setting for culturally and linguistically diverse (CLD) students. Advanced training in selection, administration and interpretation of individually administered cognitive tests, and tests of psychological processing and achievement for CLD students. Letter grade only (A-F).
527. Advanced Assessment for Intervention (3)

Prerequisite: EDP 525A; Corequisite: EDP 642A.
Focuses on furthering students' knowledge and practice: using an ecological, problem-solving approach in schools; making informed decisions regarding the usefulness and appropriateness of assessment tools and interventions with specific populations; and writing problem-solving psychoeducational reports and data-based IEPs.
Letter grade only (A-F).
528. Orientation to Professional School Psychology (3)

Prerequisites: Admittance to the School Psychology Program; COUN 515.
Introduction to the field of school psychology. History of the field, orientation to public education, roles and functions, laws and ethics, research base, organization and supervision, social and cultural influences, service delivery models, and current literature. Letter grade only (A-F).

## 536. Collaborative Consultation in the Schools (3)

Prerequisites/Corequisites: COUN 643A, 644A; EDP 642A, 642B, or Field Placement in Special Education.
Theory and practice of collaborative consultation in the schools. Models, roles and skills will be discussed, rehearsed during inclass simulations, and practiced in field settings. Field experience required.
Letter grade only (A-F).

## 541. Seminar in Educational Measurement and Assessment (3)

Prerequisites: EDP 419, 420, 519, and 520 or equivalents.
Advanced studies examining the reliability and validity of test scores, item response theory, and other statistical approaches for the improvement of educational testing. Practical application of administration and interpretation of assessment outcomes.
Letter grade only (A-F).

## 560. Behavioral Analysis and Positive Behavioral Interventions (3)

Prerequisite: Admission to field work (internship) in school psychology (EDP 642 A or B) or consent of instructor.
Multidimensional and functional assessments of student behavioral problems. Developing data-based positive behavioral interventions for students with severe behavioral difficulties, including students with traumatic brain injury (TBI), Autism, emotional disturbance (ED), etc.
Letter grade only (A-F).

## 571. Advanced Approaches to Teaching Special Populations in General Education Settings (3)

Prerequisite: Hold Preliminary Multiple or Single Subject Credential, or equivalent, or consent of instructor.
Issues in teaching special populations in elementary and secondary schools, including students who are gifted, at-risk, and have disabilities. Emphasis on establishing inclusive climates; federal, state, and local regulations; assessment; instructional strategies and modifications; collaborative school structure and classroom management.
Meets state Professional Clear credential requirement. Letter grade only (A-F).

## 572. Advanced Study of Teaching English Learners (3)

Prerequisites: Hold Preliminary Multiple or Single Subject Credential, or equivalent, or consent of instructor.
Theories of first and second language acquisition. Assessment of students' language proficiency levels. Practical application of language proficiency results and language theories. Methods of teaching content to English language learners. Reading and writing strategies. Curriculum development applications for K-12 teaching.
Meets state Professional Clear credential requirement. Letter grade only (A-F).

## 573. Intercultural Communication in Education (3)

Introduction to the facets, parameters, and techniques of intercultural communication and its relationship to functioning in a multicultural educational environment. Situates intercultural communication within the broader social, cultural and historical context and within the study of culture itself.
Letter grade only (A-F).

## 574. Sociological Foundations of Education (3)

Relationships between society and the schools. Local/national ideologies and political/economic influences. Education as a social function. Current trends and issues affecting education.
Not open for credit to students with credit in EDP 480. Letter grade only (A-F).

## 575. Intellectual Foundations of Educational Reforms, 19th Century to Present (3)

Historical survey of the intellectual and ideological foundations of U.S. educational reform movements, with emphasis on the 19th and 20th centuries. Focus on individual educational philosophers and on major curriculum orientations, with consideration of their impact on diverse groups.
Letter grade only (A-F).

## 576. Education and Diversity: Historical and Contemporary Perspectives (3)

Survey of major canons in U.S. educational history during the 19th and 20th centuries from the perspectives and experiences of various diverse groups. Analysis of the implications for the diverse populations. Educational approaches that better serve educationally diverse students.
Letter grade only (A-F).

## 577. Educational Linguistics (3)

Prerequisites: Six units in linguistics or consent of instructor.
Graduate introduction to the role of language and linguistics in contemporary education. Analysis of the context of language acquisition. Attitudes toward multilingualism. Language policies that
set guidelines and expectations for instruction. Cultural factors that influence language acquisition.
Same course as LING 500. Letter grade only (A-F).

## 578. Literacy and Linguistics (3)

Prerequisites: Six units in linguistics or consent of instructor.
General introduction to the field of literacy studies and examines the relationship between oral and written language, native language literacy and biliteracy acquisition, pedagogical practices and issues, and cognitive and sociocultural approaches to literacy development.
Same course as LING 575. Letter grade only (A-F).

## 579. Curriculum-Based Assessments and Academic

 Interventions (4)Prerequisites/Corequisites: Admission to the school psychology credential program and EDP 524A and 524B.
Evidence-based interventions for diverse learners, including students with disabilities, preschool-aged children and English Language Learners. Theories and application of curriculum-based assessments and data-based intervention development, implementation and evaluation.
(Lecture 3 hours, lab 3 hours.) Letter grade only (A-F).

## 582. Comparative International Education (3)

Overview of education in selected countries. Study of institutional organization as well as issues that develop in particular social, economic, and political contexts. Examination of commonly shared educational problems and solutions.
Letter grade only (A-F).

## 583. Global Education (3)

Background on critical world issues and cultural influences. Methods and resources for application in the classroom. Format includes resource speakers and practitioners, map activities, and cultural simulation exercises.
Letter grade only (A-F).
589. Adult Literacy and Language Diversity (3)

Prerequisite: Three (3) units from EDP 578/LING 575, ENGL 510; ENGL 535, or from an instructor approved course in literacy studies or adult second language acquisition.
Survey of issues in adult and family literacy/biliteracy, with a focus on the educational needs of language minority adults. Consideration of the relationship between theory, policy, and practice with attention to social, economic, and cultural implications. Letter grade only (A-F).
Letter grade only (A-F).

## 595. Qualitative Research Methods (3)

Comprehensive introduction to theory, nature, and use of qualitative methods in educational settings. Emphasis on application level experiences such as identifying and developing research problems appropriate for qualitative investigation, study design, qualitative/ ethnographic data collection techniques, data analysis, data interpretation, and presentation of findings.
Same as LING 595. Letter grade only (A-F).

## 596. Program Evaluation in Education (3)

Prerequisites: For majors in Educational Psychology: EDP 419, 420, and 520 or equivalents. For other majors, EDP 400 and 520 or equivalents.
Identifying and comparing various approaches to program evaluation in educational settings including needs assessments; selecting evaluation questions and criteria; collecting, analyzing, and interpreting qualitative and quantitative evaluation data; and the mechanics and process of developing an evaluation plan.
Letter grade only (A-F).
604. Seminar in Human Development (3)

Prerequisites: EDP 301 or 302, and EDP 400 or 419.
Theories and issues in developmental psychology, cognitive, linguistic, perceptual, biological, psychomotor, social and emotional development; nature-nurture and individual differences.
Letter grade only (A-F).

## 605. Theories of Learning, Cognition, Motivation, and Social Development (3)

Prerequisite: EDP 301 or 302.
Analysis of current theory and research in the areas of student learning, cognition, motivation, and social development and their application in maximizing learning of all students.
Letter grade only (A-F).

## 619. Quantitative Educational Data Analysis II (3)

Prerequisite: EDP 519 or equivalent.
Advanced multivariate statistical analysis course: multivariate analysis of variance, discriminant function analysis, canonical correlation, exploratory factor analysis, and structural equation modeling.
Approximately 20 hours of applied work in approved educational settings is required. Letter grade only (A-F)

## 641A. School Psychology Practicum (2)

Prerequisites: Admission to school psychology program, EDP 524A, 524B, 525A, 525B, and 528. Prerequisite/Corequisite: EDP 579.

Seminar and completion of 150 contiguous hours of supervised field placement for a minimum of one and maximum of 5 full days per week, with a minimum of 4 weeks and maximum of 1 year at no more than two sites and with two supervisors.
Credit/No Credit grading only.
641B. School Psychology Practicum (2)
Prerequisites: Admission to the school psychology program, EDP $524 \mathrm{~A}, 524 \mathrm{~B}, 525 \mathrm{~A}, 525 \mathrm{~B}, 528$, and 641 A .
Seminar and completion of 150 contiguous hours of supervised field placement for a minimum of one and maximum of 5 full days per week, with a minimum of 4 weeks and maximum of 1 year at no more than two sites and with two supervisors.
Credit/No Credit grading only.
642A. Field Work I - School Psychology (3)
Prerequisites: EDP 525A, completion of acceptable masters degree, concurrent enrollment in EDP 527, and approval of program coordinator.
Application for field work should be made by October 1 for the spring semester, or by March 1 for summer (if offered) or fall semester.
Credit/No Credit grading only.
642B. Field Work II - School Psychology (3)
Prerequisites: EDP 527, 642A, and approval of program coordinator.
Continuation of school psychology field work experiences. Application for field work should be made by October 1 for the spring semester, or by March 1 for summer (if offered) or fall semester.
Credit/No Credit grading only.

## 672. Language and Educational Policies (3)

Analysis of contemporary and historical language policies, educational language policies, and legal decisions in the United States that provide the context for current educational language practice. Comparison of U.S. experiences with those of other nations. Relationship between language attitudes and educational policy formation.
Letter grade only (A-F).

## 696. Thesis Study: Plan Development and Organizing Aspects (3)

Prerequisites: EDP 400 or 419 and EDP 520 or 595.
Designed for students planning to write a thesis. Form a thesis committee by midterm in the course. Accomplish a completed draft of the thesis plan by the end of the term.

## 697. Directed Research (1-3)

Prerequisites: Consent of instructor, department chair and associate dean.
Individual research or intensive study under the guidance of a faculty member.
A student may enroll for one-three units to a maximum of three units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made to the Office of Graduate Studies and Research by March 1 for the fall semester or by October 1 for the spring semester. Letter grade only (A-F).
698. Thesis (3)

Prerequisites: Advancement to candidacy, EDP 519 or 520 or 595 or 696, approval by director, department chair and associate dean.
Planning, preparation and completion of a thesis under supervision of a faculty committee.
Must be taken for six units. Application for enrollment must be made to the Graduate Studies Office by March 1 for the fall semester or October 1 for the spring semester. Letter grade only (A-F).

## 699. Project (3)

Prerequisites: Advancement to candidacy, approval of graduate advisor, and written application to the College of Education Graduate Office.
Information and discussion related to the development of master's degree projects in Educational Psychology, School Administration, Counseling and related fields.
Project application to be made to the College of Education Graduate Office by March 1 for the Summer or Fall semester or October 1 for the Spring semester. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 701. Organization and Administration of Education: Functions and Issues (1-3)

Diversity of complex systems of higher education. Functioning of systems organizationally and culturally. Exploration of issues related to governance, decision-making, and leadership. Research related to the organization and administration of higher education.
Letter grade only (A-F).

## 702. Introduction to the Community College (1-3)

Analysis of the community college system and its function and purpose in the US higher educational system. Exploration of research and studies on governance, structure, programs, and leadership of community colleges.
Letter grade only (A-F).

## 703. Policy Issues in Community Colleges (1-3)

Prerequisite: EDP 702.
In-depth analysis of the community college system specific to 1) local, state, and federal governance policies; 2) local, state, and national economic policies; 3) social and political influences on policy. Future trends in educational policy.
Letter grade only (A-F).

## 704. Exploration of Campus Cultures: Impact and Influence (1-3)

Examination of faculty, administrative, and student cultures in terms of values, behavioral norms, impacts, and influences. Students will study research methods for campus cultures. Implications for higher education policies and practices.
Letter grading only (A-F).

## 705. Finance in Education (1-3)

Examination of higher education finance and governmental influences that shape this process. Through simulations students gain a working knowledge of finance, philosophies, vision, and processes for the design and implementation of resource planning in both two- and four-year institutions.
Letter grade only (A-F).

## 706. Program and Student Assessment (1-3)

Focuses on assessment of student learning and development and assessment of programs. Research-oriented course for formative and summative program evaluation. Assessment and measurement of student outcomes.
Letter grade only (A-F).

## 707. Student Learning and Development Theory in Higher Education (1-3)

Student development and learning theories based on cognitive, psychosocial, typology, and person-environment perspectives. Analysis and critique of theoretical tenets relevant to understanding the college experience.
Letter grade only (A-F).

## 708. Leadership in Education (1-3)

Current research and theories on leadership and organizational change. Multicultural organizational development theories, planning, change, effective strategies for becoming a catalyst for change. Case studies of organizational leadership for change. Examines issues, barriers, supports for, and processes and outcomes of change.
Letter grade only (A-F).

## 709. Collaborative Reforms: Designing and Implementing Responsive Curricula (1-3)

The role of faculty and others in the collaborative development and implementation of responsive curricula. Explore systems for curricular redesign and reform at 2 - and 4 -year institutions and processes for their implementation.
Letter grade only (A-F).

## 711. Field Research Study in Education I (1-3)

First in a series of faculty-led field research courses. Individual and small group formats. Students are exposed to and participate in approved research topics or a faculty member's research.
Letter grade only (A-F).

## 712. Field Research Study in Education II (1-3)

 Prerequisites: EDP 711.Second in a series of faculty-led field research courses. Student will assess their research skills, consult with the instructor, and (with instructor approval) work individually or in small groups on a self-selected topic or one related to a faculty member's research. Letter grade only (A-F).

## 790. Special Topics in Higher Education (1-3)

Examines such issues of the CEO's roles and responsibilities, managing change, facilitating focus groups, data-based organizational change, applications of technology, responding to the needs of student populations, working with governing boards, staff development programs, and personnel assessment instruments.
Letter grade only (A-F). May be repeated to a maximum of 24 units.

## 797. Directed Individual Study (1-3)

Prerequisites: Consent of instructor, department chair and associate dean.
Individual research or intensive study under the guidance of a faculty member.
Letter grade only (A-F). May be repeated to a maximum of 24 units.

## 798. Doctoral Dissertation (3)

Prerequisites: Approval of instructor/doctoral candidacy required. Specifically for students researching and writing dissertations. Credit/No credit grading only. May be repeated to a maximum of 24 units.

## Education Specialist Courses (EDSP)

## 303. Preparing to Teach Special Populations in the General Education Classroom (1)

Prerequisites: Concurrent enrollment in EDEL 380.
Emphasis on roles and responsibilities of the general education teacher in the Individualized Education Program (IEP) process. Relevant state and federal laws pertaining to the education of exceptional populations. Letter grade only (A-F).

## 350. Education of Exceptional Individuals (3)

Survey of the education of individuals who have communication disabilities, visual disabilities, hearing disabilities, physical disabilities, learning disabilities, severe disabilities, and those labeled as gifted and talented.
Field work required.

## 355. Collaborative Models of Inclusive Education:

 Partnerships and Strategies for Teaching All Students (3)Fostering partnerships with families of diverse backgrounds; perspectives regarding access and equity for diverse student populations; laws regarding education of students with special needs. Letter grade only (A-F).
*454. Development of Communication Skills in Bilingual Contexts (3)
Prerequisite: Consent of instructor.
Normal and atypical development of language skills in school-aged children from non-English language backgrounds. Focus on skills needed in the classroom, including communicative competence, pragmatics and literacy. Distinction between normal language development and linguistic problems/disabilities.
*480. Foundations of Inclusive Education in a Diverse Society: Philosophical and Historical Perspectives and Legal Mandates (3)
Prerequisites: Admission to Education Specialist credential program. Philosophical and historical foundations of special education in a diverse society. Examination and discussion of educational theories, philosophies, models, legal mandates, and traditions of inclusive education. Impact of contemporary school practices on students with disabilities and their families.
Letter grade only (A-F).

## 535. Collaborative Partnerships and Effective Communication in School Settings (3)

Prerequisites: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Methods for developing collaborative partnerships and effectively communicating with educators, community members, families, and individuals with disabilities.
Letter grade only (A-F).

## 542. Technology in Special Education (3)

Prerequisites: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Overview of Assistive Technology and Augmentative Communication for individuals with exceptional needs. Examination of legislation, devices, and services using assistive technology and augmentative communication. Introduction to assistive technology assessment and advanced development of Computer Assisted Instruction.
Letter grade only (A-F).
546A,B,C,D,E,F. Practicum in Special Education (3,3,3,3,3,3)
Supervised experience with individuals with exceptionalities in schools, clinics, post-secondary education, workplaces, and residential settings.
Application should be made by March 1 for the fall semester and October 1 for the spring semester. Letter grade only (A-F).
550. Emerging Perspectives in Special Education (3)

Prerequisite: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Interpretation and application of emerging research in special education. Historical foundations, litigation, legislation, policy and practice in special education, emphasizing the last century. Current and emerging issues in the field. Relationships between research and practice.
Letter grade only (A-F).

## 558. Curriculum and Instruction for Students with

 Disabilities (3)Prerequisites: Full admission to the Level I Education Specialist Credential program or Education Specialist Intern program or acceptance in the Integrated Teacher Education Program, Education Specialist option and completion of or concurrent enrollment in EDSP 564.

Curricular issues, models, and practices for students with disabilities. Emphasis on core curriculum in public schools and appropriate modifications and delivery of content to students with disabilities. Emphasis on individualized instructional planning procedures, validated instructional strategies, and collaborative teaching.
Letter grade only (A-F).

## 563. Advanced Methods of Teaching Individuals with Significant Disabilities (3)

Prerequisite: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Formal and informal assessment procedures responsive to the cultural, socio-economic and linguistic characteristics of individual students with significant disabilities. Data-based decision making, curriculum adaptations and modifications, and instructional strategies. Collaboration with community agencies for successful transition from school to work.
Letter grade only (A-F).

## 564. Assessment and Evaluation of Students with Disabilities (3)

Prerequisites: Admission to the Education Specialist Credential program, EDP 405, EDSP 350, 480 or consent of instructor.
Knowledge of appropriate uses of formal, informal and authentic assessment procedures for planning, monitoring and evaluating instructional programs for students with disabilities. Emphasis on issues in assessing and evaluating culturally and linguistically diverse students.
Letter grade only (A-F).

## 565. Advanced Methods of Teaching Individuals with Mild/Moderate Disabilities (3)

Prerequisites: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Advanced assessment, methods, strategies, and curriculum adaptations for students with mild/moderate disabilities at all levels. Emphasis on collaboration, diversity, literacy, technology and transition.
Letter grade only (A-F).

## 566. Transition Into, Through, and Beyond School for Individuals with Disabilities (3)

Prerequisites: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Examination of major issues and approaches to promoting successful transition of youth with disabilities into, through, and beyond school. Emphasis on instructional strategies for teaching adolescent youth with disabilities at the secondary level.
Letter grade only (A-F).
567. Curriculum and Instruction for Students with Disabilities: Literacy, Communication, Social and Physical Education (3)
Prerequisites: Full admittance to the Level I Education Specialist Program or Education Specialist ITEP and completion or concurrent enrollment in EDSP 564.
Curricular issues, models and practices related to teaching students with disabilities in literacy, communication, physical education, and social behaviors. Emphasis on core curriculum, standards-based instruction, and differentiating instruction. Instructional planning and validated teaching strategies.
Letter grade only (A-F).
569. Curriculum and Instruction for Students with Disabilities: Math, Science, and Life skills (3)
Prerequisites: Full admittance to the Level I Education Specialist Program or Education Specialist ITEP and completion or concurrent enrollment in EDSP 564.
Curricular issues, models and practices related to teaching students with disabilities in math, other content areas, and life skills. Emphasis on core curriculum, standards based instruction, and differentiating instruction. Instructional planning and validated teaching strategies.
Letter grade only (A-F).

## 587A. Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate Disabilities (6)

Prerequisite: Admission to the Level I Education Specialist Credential in Mild/Moderate Disabilities. Must complete all Level I courses. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the spring semester.
Advanced field study in a public or private school or community-based site serving individuals with mild/moderate disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Students may concurrently enroll in EDSP 587B upon advisement by their faculty advisor. Credit/No Credit grading only.

## 587B. Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate Disabilities (6)

Prerequisite: EDSP 587A or concurrent enrollment in EDSP 587A upon advisement by their faculty advisor. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the spring semester.
Advanced field study in a public or private school or community-based site serving individuals with mild/moderate disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Credit/No Credit grading only.

## 588A. Advanced Field Study and Seminar: Education

## Specialist Credential in Moderate/Severe Disabilities (6)

Prerequisite: Admission to the Level I Education Specialist Credential in Moderate/Severe Disabilities. Must complete all Level I courses. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the Spring semester.
Advanced field study in a public or private school or community-based site serving individuals with moderate/severe disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Students may concurrently enroll in EDSP 588B upon advisement by their faculty advisor. Credit/No Credit grading only.

## 588B. Advanced Field Study and Seminar: Education Specialist Credential in Moderate/Severe Disabilities (6)

Prerequisite: EDSP588A or concurrent enrollment in EDSP 588A upon advisement by their faculty advisor. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the spring semester.
Advanced field study in a public or private school or community-based site serving individuals with moderate/severe disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Credit/No Credit grading only.

## 695S. Seminar in Special Education (3)

Prerequisites: Advancement to candidacy, and written application to Graduate Office. Application for enrollment must be made by March 1 for the summer session or fall semester, or by October 1 for the spring semester.
Studies of problems and issues in special education. Relating research to practice in the several areas of exceptional individuals. For qualified candidates preparing for the comprehensive examination.
Not open for credit to students with credit in EDP 650. Letter grade only (A-F).

## Educational Technology Courses (ETEC)

## LOWER DIVISION

## 100. Technology as a Tool for Self-Directed Learning (3)

Introduces: (a) psychological foundations of self-directed learning; (b) technology as a tool to obtain, organize, evaluate, manipulate, and present information; and (c) evaluation of technologies for use in education, including online/hybrid courses and collaborative learning. (Lecture 2 hours, Laboratory 2 hours) Letter grade only (A-F).

## 110. Introduction to Computers as Tools (1)

Introduction to operations, terminology, and components of computing systems. Introduction to computer applications including word processing, databases, and spreadsheets. Introduction to University e-mail systems and electronic searching.
Letter grade only (A-F).

## 171. Critical Thinking Using Technology (3)

Prerequisite/Corequisite: Completion/concurrent enrollment in GE Foundation requirement Category A1 Written English.
Cultivates critical thinking abilities in conjunction with the use of computer technology. Introduces basic hands-on computer skills to facilitate critical thinking and learning. Examines public discourse on the use of technology from instrumental, substantive, and critical perspectives.
(Lecture two hours, Laboratory two hours) Letter grade only (A-F).

## UPPER DIVISION

## 411. Assessment of Computer Technology Competency, Level I (1)

Appropriate only for students who are already proficient with the material in ETEC 444. Provides students with an opportunity to meet the California Level I computer technology requirement by a performance assessment. Two class meetings and online activities. Credit/No Credit grading only.
*444. Computer Technology in Education, Level I (3)
Prerequisites: Course design assumes familiarity with topics introduced in ETEC 110.
Introduction to educational computer technology: resources and tools for professional use; strategies for integrating computers into teaching; applications to diverse learners; legal, ethical, and societal issues. Meets the Level I teaching credential computer technology standard.
(Seminar 2 hours, laboratory 2 hours.)
*449. Technology Applications for Educators (1-3)
Prerequisites: Consent of Instructor.
Contemporary applications of technology for teaching, learning, and the management of instruction. Demonstration and hands-on experience with computer and media applications in educational settings.
Topics are announced in the Schedule of Classes. May be repeated to a maximum of 12 units with different topics.

## A. Internet Resources for Educators

Introduces the growing number of Internet-based educational resources for educators. Discussion, demonstrations, and hands-on experience in the use of computer communication tools, including email, file transfer protocol (FTP), newsgroups, listservs, and the world wide web.

## B. Evaluation and Selection of Instructional Technology Resources

Introduces a variety of evaluation instruments and techniques for evaluating and selecting instructional technology resources to support the California curriculum frameworks.

## GRADUATE LEVEL

## 523. Computer Technology in Education, Level II (3)

Prerequisites: ETEC 444 or equivalent experience satisfying California Level I computer technology standard.
Principles for integrating computer technology into learning environments to improve: planning, designing and implementing learning experiences; educational communication and collaboration; assessment and evaluation.
Meets California Level II computer technology standard.(Seminar 2 hours, laboratory 2 hours.) Letter grade only (A-F).

## 525. Social and Cultural Implications of Educational

 Technology (3)Examination of social and cultural implications of educational technologies, considering issues of cultural bias, equity, and questions of who benefits from particular technologies. International applications of computer technologies to promote learning about different cultures.

## 530. Educational Technology Leadership (3)

Prerequisites: ETEC 523, or consent of the instructor.
Examines leadership related to implementation of educational technology in education. Theory, knowledge, and skills necessary to use, evaluate, plan, and implement technologies in education system. Examines broader issues including security and cyber ethics.

## 551. Education and the Internet (3)

Prerequisites: ETEC 523.
Discussion, demonstrations, and hands-on experience related to educational applications of Internet. Best practices and tools for designing and managing Internet-delivered educational programs. Effectiveness of interactivity in web design.
(Seminar 2 hours, Laboratory 2 hours).
553. Instructional Design (3)

Prerequisites: ETEC 523 or equivalent experience satisfying the California Level II computer technology standard.
Principles of instructional design emphasis on designing effective teaching strategies with educational technology. Theories and models to plan, create, evaluate and refine learner-centered educational activities.
Letter grade only (A-F).

## 580. Field Experience in Educational Technology (3)

Prerequisites: ETEC 523 and either ETEC 530, EDP 520 or 595.
Students investigate and experience occupation or environment utilizing a form of educational technology. Under instructor guidance, students perform 90 field experience hours in educational technology environment. Instructor approval required for site selection.
Letter grading only (A-F).
623. Developing Technology - Based Learning (3)

Prerequisites: ETEC 523, 553.
Discussion, demonstration, and hands-on experience toward development of technology-based interactive learning programs. Concepts of technology-based instructional design. Authoring tools for creating simulations, educational games, and interactive assessment tools.
Seminar 2 hours, laboratory 2 hours.

## 695. Seminar in Educational Technology (3)

Prerequisites: Successful completion of all required course work for the Master of Arts in Education, Option in Educational Technology.
Studies in educational technology including reviews of literature, critique of educational technology research, and systematic development and evaluation of areas of students' prior work.
For qualified candidates preparing for the comprehensive examination. Application for enrollment must be made by March 1 for summer session or fall semester or by October 1 for spring semester. Letter grade only (A-F). May be repeated to mximum of 6 units.

## Library Media Courses (ELIB)

## UPPER DIVISION

## *497. Independent Study (1-3)

Prerequisites: Consent of instructor and department chair.
Independent study under faculty supervision. May be repeated to a maximum of 6 units, no more than 3 units applicable to credential or major requirement.

## GRADUATE LEVEL

## 500. Foundations of Information (3)

Role of information and information technology in organizations (particularly in Western education) and society. Topics include societal needs and demands, diffusion of knowledge and technology, information seeking and use, information/technology and culture.
Letter grade only (A-F).
510. Selection of Materials and Information Sources (3) Criteria, tools, procedures and policies for evaluating and selecting instructional resources appropriate to use in school library media centers.
Letter grade only (A-F).

## 520. Information Literacy and Reference Services (3)

Philosophy of reference service and information literacy. Criteria for evaluation, selection, setup and use of selected basic reference sources to reflect cultural and linguistic diversity of students. Uses of reference sources and information literacy processes.
Letter grade only (A-F).

## 530A. Library Media Materials for Elementary Grades (K-5) (3)

Selection and use of fiction and non-fiction books, audiovisual and electronic media, and related materials of interest to children that reflect California's cultural diversity and support current curriculum frameworks. Criteria and tools for selection and use. Current issues.
Letter grade only (A-F).

## 530B. Library Media Materials for Secondary Grades

 (6-12) (3)Selection and use of fiction and non-fiction books, audiovisual and electronic media, and related materials of interest to young adults that reflect California's cultural and support current curriculum frameworks. Criteria and tools for selection and use. Current issues.
Letter grade only (A-F).

## 540. Organization of Information (3)

Rationale and use of library catalogs. Principles and practice in classification and cataloging applied to school library media centers. Processing/organization of information. Current issues Letter grade only (A-F).

## 550. Library Media Center Management (3)

Philosophy, principles and problems of planning, organizing, supervising and managing a school library media center program. Letter grade only (A-F).

## 570. Library Media Technologies (3)

Prerequisite: Level I computer technology knowledge and skills.
Evaluation, selection, and productivity/curriculum applications of computer, video, optical disc, audiovisual and other technologies for use in school library media centers; analysis of available hardware and software; management of technologies.
Letter grade only (A-F).

## 580. Field Experience in the School Library Media Center (4)

Prerequisites: Pass CBEST; possession of valid California teaching credential; completion of courses required for credential or consent of program coordinator.
Administering a library media program under credentialed library media teacher supervision. Applications for field work due March 1 for summer or fall semester and October 1 for spring semester. Letter grade only (A-F).

# ELECTRICAL ENGINEERING <br> College of Engineering 

Department Chair<br>Rajendra Kumar<br>Department Office<br>Engineering and Computer Science (ECS) 512<br>Telephone<br>(562) 985-5102/5103<br>Website<br>http://www.csulb.edu/colleges/coe/ee<br>Faculty<br>Professors<br>Mahyer Amorezegar, James Ary, Anastasios G. Chassiakos, Radhe Das (Emeritus, 2003), Christopher Druzgalski, Fumio Hamano, Kenneth James, Rajendra Kumar, Slawomir Lobodzinski, Tulin E. Mangir, Hassan Mohamed-Nour, Harnatha Reddy, Alfonso Rueda, Bahram Shahian, Raymond Stefani (Emeritus), Robert Teng, Chit-Sang Tsang<br>Mahmoud Wagdy, Ray Wang, Henry Yeh<br>Undergraduate Advisor - Electrical Engineering James Ary<br>Undergraduate Advisor - Electronics and Computer Engineering Technology<br>Ray Wang<br>Graduate Advisor<br>Radhe Das<br>General Education Advising<br>See Academic Advising Center AS-124<br>Biomedical Engineering Advisor<br>Christopher Druzgalski<br>Administrative Coordinator<br>Barbara V. L. Marshall<br>Students desiring detailed information should contact the department office for referral to one of the faculty advisors.

## Advisory and Development Council

The Department of Electrical Engineering is supported by an Advisory and Development Council consisting of outstanding engineers and executives from industry and government in southern California. Its function is to form a liaison between the University and industry and to keep the administration and faculty informed of modern engineering practices. This ensures that the curricula are kept up-to-date. It also advises on placement opportunities before and after graduation.

## ABET Accreditation

The Bachelor of Science in Electrical Engineering Program and the Bachelor of Science in Electronics and Computer Engineering Technology Program are respectively accredited by the Engineering Accreditation Commission (EAC) and the Technology Accreditation Commission (TAC) of the ABET, Inc., 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7700, website: http://www.abet. org. Students enrolling in these programs are advised to get in touch with the undergraduate advisors for information regarding ABET requirements.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Electrical Engineering (code EE__BS01) (133 units)

The objectives of the Bachelor of Science in Electrical Engineering Program are to give students:

1. A solid foundation in basic science, mathematics, and EE practices and major design skills to maintain high employability, adaptability to changing technology, and an ability to conceive new technologies
2. Effective communication skills to be able to progress in their careers
3. An awareness of ethical and societal responsibilities
4. An ability to work effectively in a team environment The bachelor's degree in electrical engineering is designed to prepare graduates for responsible engineering positions in design, development, research, applications, and operation in the fields of communications, control systems, digital signal processing systems, electromagnetics, digital and analog electronic circuits, physical electronics, computer-aided design and power systems. The curriculum is built around a strong basic core of mathematics, physics and engineering science. This is followed by intermediate courses in electrical engineering topics and finally a senior elective sequence including a senior design seminar and terminating in a capstone design course.

By choice of senior elective sequence comprehensive coverage is provided in any one of the above fields.

Laboratory facilities are available in the engineering buildings allowing for basic as well as more advanced laboratory instruction in electronics, digital signal processing, control systems, microelectronics, communications, power, and digital systems.

## Requirements

Core: CECS 174; EE 200, 201; either EE 210 and 210L or PHYS 152; EE 211, 211L; ENGR 202; MATH 122, 123, 224; MATH 370A or equivalent; PHYS 151, 254; EE 310, 330. Each of the foregoing courses must be completed with a grade of " $C$ " or better as well as all courses that are prerequisite or corequisite to courses required for the major including ENGL 100 or equivalent. Other required courses are EE 346, 347, 350, 370, 370L, 380, 382, 386, 400D, 430, 430L, 462 or 464; CE 370 or MAE 330; plus an elective sequence with capstone senior design course as follows: Analog and Digital Electronics Elective Sequence: either EE 301 and 301L or 435 and 435L; 320, 332, 447; plus additional electives* totaling at least 133 units approved by the department.
Communications Elective Sequence: EE 482, 486, 488; plus additional electives* totaling at least 133 units approved by the department.
Controls Elective Sequence: EE 450, 470, 471; plus additional electives* totaling at least 133 units approved by the department.

Digital Signal Processing Sequence: EE 482, 486, 489; plus additional electives* approved by the department totaling at least 133 units.
Power Elective Sequence: EE 450, 452, 458; plus additional electives* totaling at least 133 units approved by the department.
A grade of " C " or better is required for the capstone senior design course in area of specialization.

* See undergraduate advisor for the list of approved electives and the number of elective units required


## Bachelor of Science in Engineering Option in Biomedical and Clinical Engineering (code EE__BS02) (135 units)

The Department of Electrical Engineering administers an option in Biomedical and Clinical Engineering that allows the student to acquire substantive competence in biomedical engineering and biology. The program builds upon a strong base of biology, mathematics, physics, chemistry, and engineering science to develop a clinically oriented biomedical engineer to serve medical and industrial needs. It includes a core of standard electrical engineering courses as well as courses and laboratories in biomedical engineering, anatomy, physiology and biology. Elective units are available in the senior year to explore individual areas of interest.

Students planning to attend medical, dental or other health professional or graduate schools in Biomedical Engineering may select courses in Chemistry and/or Biology with the approval of the Biomedical Engineering advisor.

Laboratory facilities in the field of biomedical engineering are available in the engineering buildings; and laboratory facilities for anatomy and physiology are available on campus. Computer systems are available to simulate biological systems and to collect, process and display physiological data.

## Requirements

CECS 174; CHEM 111A; EE 200, 201, 211, 211L, 310, 330, ENGR 202; MATH 370A; MATH 122, 123, 224; PHYS 151, 152, 254. Each of the foregoing courses must be completed with a grade of "C" or better as well as all courses that are prerequisite or corequisite to courses required for the major including ENGL 100 or equivalent. The interdisciplinary courses as well as the Communications Studies (COMM) courses required for General Education must be taken for a letter grade. BIOL 207 (GE category B1a); EE 346, 347, 350, 370, 370L, 382, 406, 406L, either 407 or 408, 430, 460; MAE 330 or CE 370; plus additional approved biomedical electives, including an approved senior design course to at least 135 units. A grade of "C" or better is also required for EE 406, 406L, and either 407 or 408.

## Bachelor of Science in Electronics Engineering Technology

For requirements and courses, see description in the Engineering Technology Programs section of this catalog.

## Bachelor of Science in Computer Engineering Technology

For requirements and courses, see description in the Engineering Technology Programs section of this catalog.

## Certificate in Energy Conversion and Power Systems Engineering (code MAE_CT04)

The 27-unit Certificate Program in Energy Conversion and Power Systems Engineering is an undergraduate program designed to prepare electrical and mechanical engineering students to become proficient in the analysis and design of power generating systems such as direct conversion, coal burning, hydraulic, nuclear, solar, wind and various other types of power plants and systems, and industrial electric power systems design.

For certificate requirements see the Mechanical and Aerospace Engineering Department section of this catalog.

## GRADUATE PROGRAMS

## Master of Science in Electrical Engineering (code EE_MS01)

This program affords an opportunity for engineers and others to advance their competency in analysis and design to better meet the high technology needs of local industry. Each student selects three graduate courses in one area of emphasis, and the remaining courses must augment and support that area of emphasis. Some current examples of areas of emphasis are biomedical, communications, computer/communication networks and security, control systems and robotics, digital signal processing, digital systems, electromagnetics and optics, electronics, engineering mathematics, networks and filters, and power. Students may create other areas of emphasis with the approval of the graduate advisor. A limited number of laboratory and teaching assistantships are available to qualified graduate students.

## Prerequisites

1. A bachelor's degree from an accredited program in electrical engineering or a bachelor's degree from an accredited engineering, natural science or other appropriate program with the requirement that essential undergraduate deficiencies in electrical engineering are removed prior to Advancement to Candidacy.
2. Graduate students must consult with the graduate advisor and obtain the MSEE Handbook which covers procedures and requirements. A tentative program must be approved by the graduate advisor. That program must exhibit an area of emphasis comprised of at least three related graduate courses (500 or 600 level).
3. The prospective graduate student must have attained a GPA of at least 2.5 for the last 60 semester units (90 quarter units) attempted prior to entry in the MSEE program. The student should apply directly to the University Admissions Office. There is no need to apply to the Department initially. International students should apply through the Center for International Education.

## Advancement to Candidacy

1. Fully classified standing (if initially admitted as conditionally classified) by completing all deficiency requirements.
2. Current enrollment in a regular session.
3. For classified students, removal of all undergraduate deficiencies as determined by the graduate advisor. The GPA must be at least 3.0 for all such courses attempted.
4. Demonstration of competence in technical writing by passing an appropriate writing course with a grade of "C" or better or by providing acceptable proof of technical writing ability. This requirement can be waived for thesis students upon recommendation of the graduate advisor and the thesis advisor.
5. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
6. Completion of at least 9 units as a graduate student in residence while maintaining an overall GPA of at least 3.0 and a major GPA of at least 3.0. Students are advised strongly to seek advancement before completing 15 units of the program.

## Requirements

EE core courses consist of the following: EE 505, 508, 509, and 511. Students must select at least 2 out of the above 4 courses appropriate to their area of emphasis and subject to the approval of the Graduate Advisor. Completion of a minimum of 31 units in 400-, 500-, or 600-level courses as approved in advance by the graduate advisor. Students must choose either the thesis or nonthesis alternatives. Successful completion of a thesis provides a unifying culmination to the program, and an enhanced resume for future industrial or academic endeavor. Thesis Alternative: 500/600-level courses in EE including the above core requirement (15 units); EE 600 (1 unit); EE 697 (3 units); EE 698 ( 6 units); 400/500/600-level courses in EE (6 units); Comprehensive Oral Exam on Thesis.
Non-Thesis Alternative: 500/600-level courses in EE including the above core requirement (21) units); EE 600 (1 unit); EE 697 (3 units) on a capstone project; 400/500/600-courses in EE (6 units); Comprehensive Oral Exam on the capstone project.

## Courses (E E)

## LOWER DIVISION

## 200. Trends in Electrical Engineering (1)

Electrical Engineering as a profession. Nature of professional and design activities. Advances in Electrical Engineering. Current designs, future trends and challenges in various fields of Electrical Engineering. (Lecture 1 hour) Letter grade only (A-F).

## 201. Digital Logic Design (4)

Prerequisite: MATH 117 (or equivalent).
Practical design of digital circuits. Basic topics in combinational and sequential switching circuits with applications to the design of digital devices.
(Lecture-problems 4 hours)

## 210. Electro-Magnetic Foundations in Electrical Engineering (3)

Prerequisites: MATH 123, PHYS 151. Corequisite: EE 210L.
Electric fields. Magnetic fields. Ohm's law. Kirchoff's laws. Physics of inductance and capacitance. Conservation of energy. Introduction to RL, RC and RLC circuits. Introduction to phasors. Introduction to electric machinery, computer electronics, electromagnetic radiation, and communication.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 210L. Electro-Magnetic Foundations in Electrical Engineering Laboratory (1)

Corequisite: EE 210.
Laboratory experiments demonstrating behavior of resistive circuits; capacitors and inductors; transient RL and RC circuits; sinusoidal (phasor) RL, RC and RLC circuits; motors, generators, and transformers.
Letter grade only (A-F).

## 211. Electric and Electronic Circuits (3)

Prerequisites: EE 210 or PHYS 152, MATH 224.
Linear circuit analysis techniques including circuit transformations, mesh and node analyses. Thevenin's, Norton's, Superposition, and Maximum Power Transfer theorems. Transient analysis of RL, RC and RLC circuits. Phasors. Power concepts. Nonlinear circuits including diodes. Circuit solution using PSpice.
(Lecture-problems 3 hours) Letter grade only (A-F). (211, CAN ENGR 12; EE 211+211L, CAN ENGR 6)
211L. Electric Circuits Laboratory (1)
Corequisite: EE 210 or EE 211.
Laboratory investigation of Ohm's Law, Kirchhoff's Laws, voltage and current division, mesh and nodal analysis, Thevenin and Norton equivalents, superposition, simple RL, RC, RLC circuits, phasors. Use of voltmeters, ammeters, ohmmeters and oscilloscopes. Identification of unknown elements.
(Laboratory 3 hours) Letter grade only (A-F).
220. Materials Sciences for Electrical Engineers (3)

Prerequisites: MATH 224 and EE 210.
Basic principles of optical and wave propagation. Introduction to quantum electronics. Fundamental aspects of photonics and materials sciences and their relevance to solid state electronic circuits.
(Lecture-problems 3 hours) Letter grade only (A-F).
236. Introduction to Nanotechnology: A Tour in NanoLand (3)
Prerequisite: Sophomore standing.
Overview of the fundamentals of nanoscience and nanotechnology, a wide range of applications, and issues that affect widespread use of these technologies based on ongoing research and discourse. An interdisciplinary course, taught by an interdisciplinary team of Instructors. Students will observe nature and matter in submicron and nanometer scale.
(Lecture-problems 3 hours) Letter grade only (A-F).

## UPPER DIVISION

## 301. Sequential Circuit Design (3)

Prerequisite: EE 201.
Synthesis of sequential circuits. Asynchronous sequential circuits, algorithmic state machines, hardware design languages, sequential circuit design using programmable logic devices.
(Lecture-problems 3 hours) Letter grade only (A-F).
301L. Sequential Circuit Design Laboratory (1)
Prerequisite or Corequisite: EE 301.
Design, implementation, and verification of digital systems using medium scale integrated and large scale integrated circuits.
(Laboratory 3 hours) Letter grade only (A-F).
310. Signals and Systems (3)

Prerequisites: EE 210 or 211; and MATH 370A or equivalent.
Fundamental concepts of signals and systems. Laplace
Transforms. Fourier Series. Fourier Transforms. Two-port parameters.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 320. Solid State Electronic Devices (3)

Prerequisite: PHYS 254.
Semiconductor crystal structure and growth. Carrier modeling, drift and diffusion currents. P-N junctions, diodes, solar cells and light-emitting diodes (LED). Bipolar junction transistor (BJT) biasing, linear and switched operation. Metal oxide semiconductor field effect transistor (MOSFET) operation.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 330. Analog Electronic Circuits I (4)

Prerequisite: EE 211.
Analysis and design of diode, bipolar junction transistor, field-effect transistor (MOSFET and JFET), and CMOS circuits. Op-Amp linear and nonlinear circuit applications. Laboratory includes transistor and operational amplifier circuit design and CAD tools.
(Lecture-problems 3 hours, laboratory 3 hours) Letter grade only (A-F).

## 330L. Analog Electronics Laboratory I (1)

Prerequisite or Corerequisite: EE 330.
Transistor and operational amplifier circuit design laboratory.
(Lab 3 hrs) Letter grade only (A-F).
331. Mixed Signal Electronics (3)

Prerequisites: CECS 201, EE 210, 210L.
Analysis and design of digital electronic circuits. Operation of bipolar and MOS transistors. NMOS, CMOS and bipolar transistor inverters, NAND gates and NOR gates. Interfacing digital circuits with external devices. D/A and A/D converters. Mechatronics.
Not open for credit to EE majors. (Lecture 2 hrs , laboratory 3 hrs ) Letter grade only (A-F).

## 332. Digital Electronic Circuits (3)

Prerequisites: EE 201, 211, 320.
Analysis and design of digital electronic circuits. Structure and operation of MOS transistors, including SPICE models. NMOS and CMOS inverters. Bipolar transistor inverters. Bipolar digital gate circuits (TTL \& ECL). Regenerative logic circuits (flip-flop, Schmitt trigger, multivibrator). Semi-conductor memories. Basic IC designGate Array, Standard Cell, PLA.
(Lecture-problems 3 hrs ) Letter grade only (A-F).

## 346. Microprocessor Principles and Applications (3)

 Prerequisites: CECS 174, EE 201.Study of microprocessor and microcomputer elements for applications of these devices to practical problems. Assembly language programming. Design of microprocessor based systems using 80X86 architecture.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 347. Microprocessor Based System Design (3)

Prerequisite: EE 346.
Design and construction of a microprocessor based system. Interfacing and control of external devices.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 350. Energy Conversion Principles (3)

Prerequisites: EE 211 and 211L, or consent of instructor.
Electromechanical energy conversion. Power transformers. DC, synchoronous, and induction machines. Laboratory experiments on power electronics and rotating machinery.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 350L. Energy Conversion Laboratory (1)

Prerequisite: EE 350.
Testing and performance validation of electric, electronic, electrochemical and electromechanical components and apparatus. (Laboratory 3 hours) Letter grade only (A-F).
370. Control Systems (3)

Prerequisite: EE 310.
Control systems analysis; block diagrams, signal flow graphs, stability criteria, root locus, frequency domain analysis. Examples of classical control system design.
(Lecture-problems 3 hours) Letter grade only (A-F).
370L. Control Systems Laboratory (1)
Prerequisite: EE 370.
Experiments which reinforce concepts learned in EE 370. Digital simulation modeling, analysis, and design. Real time applications.
(Laboratory 3 hours) Letter grade only (A-F).

## 380. Engineering Probability and Statistics (3)

Prerequisite: EE 310.
Introduction to probability, statistics, random variables and their application.
Not open for credit to students with credit in EE 480. (Lectureproblems, computer projects 3 hrs ) Letter grade only (A-F).

## 382. Communication Systems I (3)

Prerequisite: EE 310.
Review of Fourier series and transforms. Introduction to passive, active, and digital filters. Basic elements of probability theory, statistics, concept of white noise, AM, DSB, SSB and vestigial modulation, narrowband and wideband FM.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 386. Digital Signal Processing (3)

Prerequisite: EE 310 or CECS 311 or CECS 325.
Introduction to discrete-time signals and systems, z-transform, digital filters, system design, and comparison to the analog counterparts. Multimedia-based laboratory experiments for discrete-time signals and systems in time and frequency domain, synthesis of digital sound/music with MATLAB or C.
Not open for credit to students with credit in EE 485. (Lectureproblems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*400D. Electrical Engineering Design Seminar and Project (2)
Prerequisites: EE 347, 370, and 382; or consent of instructor.
Design terminologies, processes and issues. Simple design examples. Constraints imposed by factors such as performance, economics, reliability, safety, aesthetics, packaging, codes, standards and practices. Ethics and social and environmental impact. Case studies. Individual and group projects. Oral presentation required.
(Lecture-problems 1 hour, laboratory 3 hours) Letter grade only (A-F).
*401. Mathematical Methods for Electrical Engineers (3) Prerequisite: MATH 370A.
Analytic techniques relevant to electrical engineering.
(Lecture-problems 3 hours) Letter grade only (A-F).
*405. Special Topics in Electrical Engineering (3)
Prerequisites: Senior standing in electrical engineering or consent of instructor.
Selected topics from recent advances in electrical engineering. Course content will vary from year to year and may be repeated once for credit with consent of department undergraduate advisor. (Lecture-problems 3 hours) Letter grade only (A-F).

## *406. Medical Instrumentation and Measurements (3)

Prerequisite: EE 330 or consent of instructor.
Design and analysis of medical instruments, electrodes and amplifiers for measurement of physiological signals.
(Lecture-problems 3 hours) Letter grade only (A-F).
*406L. Biomedical Engineering Laboratory (1)
Prerequisite or corequisite: EE 406.
Laboratory study of medical instrumentation, transducers and computer data processing.
(Laboratory 3 hours) Letter grade only (A-F).
*407. Applications of Computers in Medicine (3)
Prerequisite: EE 346 or consent of instructor.
Principles of analysis and design of computers and data collection equipment for real-time on-line medical systems.
(Lecture-problems, computer projects 3 hours) Letter grade only (A-F).
*408. Health Care Delivery Systems Engineering (3) Prerequisite: EE 406 or 407.
Applications of engineering in health care delivery systems. Classroom and hospital studies of clinical engineering.
Professional aspects of biomedical engineering including engineering support of medical care, employment practices and ethics.
(Lecture-problems 3 hours) Letter grade only (A-F).
*410. Analog Filter Design (3)
Prerequisite: EE 310.
Theory and design of active filters using operational amplifiers. Emphasis is placed on low-pass filters.
(Lecture-problems 3 hours) Letter grade only (A-F).
*411. Continuous- and Discrete-Time Linear Systems (3) Prerequisite: EE 370.
Review of matrices and linear algebra. Z-transforms, linear systems, and difference equations. State-space description of linear systems. Analysis including stability, reachability, and observability. State-feedback.
(Lecture-problems 3 hours) Letter grade only (A-F).
428./528. Speech Signal Processing (3)

Prerequisite or Corequisite: EE 486 or consent of instructor.
Principles and engineering applications of speech signal processing. Speech synthesis, recognition, encoding, and compression. Applications of neural networks.
Additional projects required for EE 528. (Lecture-problems 3 hours) Letter grade only (A-F).

## *430. Analog Electronic Circuits II (3)

Prerequisites: EE 330, 370; Prerequisite or Corequisite: EE 330L.
Differential pairs, current sources, output stages, and integrated
operational amplifiers. Op-amp applications and practical issues.
Frequency response. Computer-aided circuit analysis and design. Feedback amplifiers and stability. Oscillators.
(Lecture-problems 3 hours) Letter grade only (A-F).
*430L. Analog Electronics Laboratory II (1)
Corequisite: EE 430.
Advanced transistor, operational amplifier, and linear-integrated circuits and systems design laboratory.
Not open for credit to students with credit in EE 433L. (Laboratory 3 hours) Letter grade only (A-F).
*432. Design of Analog Circuits and Systems (3)
Prerequisites: EE 400D, 430. Corequisite: EE 410.
Extensive laboratory projects. Building blocks such as practical amplifiers, transducers, signal sources, nonlinear circuits, phaselocked loops, D/A and A/D converters, ASICs. Noise. Computeraided system design.
(Lecture-problems 2 hours, laboratory 3 hours)

## 434./534. Mixed-Signal IC Design (3)

Prerequisites: EE 201 and EE 330, or 331, or consent of instructor. CMOS fabrication. Component layout. MOSFET modeling. Mixedsignal devices such as D/A and A/D converters and phase-locked loops. Substrate Noise coupling. System-on-chip considerations. Design using CAD tools.
Additional projects required for EE 534. (Lecture-problems 2 hours, Laboratory 3 hours) Letter grade only (A-F).
*435. Microelectronics (3)
Prerequisites: EE 201, 330.
Microelectronic fabrication processes and characterization of devices. Full custom design examples with small scale integration of bipolar, NMOS and CMOS devices, both analog and digital formats.
Not open for credit to students with credit in EE 420. (Lectureproblems 3 hours) Letter grade only (A-F).

## *435L. Microelectronics Laboratory (1)

Corequisite: EE 435.
Laboratory evaluation of IC process steps. Wafer probe, packaging, and final test. Empirical device model formulation from test data.
Not open for credit to students with credit in EE 420L. (Laboratory 3 hours) Letter grade only (A-F).

## 436./536. Microfabrication and Nanotechnology (3)

Prerequisites: EE 330 and EE 320 or PHYS 254; or MAE 300.
Techniques and the technology of miniaturization of electrical, mechanical, optical, and opto-electronic devices in sizes from millimeters to nanometers. Design examples of sensors, microlenses, cantilevers, and micromotors, process fabrication.
Additional projects required for EE 536. (Lecture-problems 3 hours) Letter grade only (A-F).

## *445. Foundation of Computer Communication

 Networks (3)Prerequisite: EE 482 or consent of instructor.
Computer communication network hardware and software. Protocols, networks, relational database technology. Examples of client/server and peer-to-peer computing applications. Tools and development environments. Groupware, middleware. A class project and class presentation will be required in addition to laboratory projects.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*446. Advanced Microprocessors and Embedded Controllers I (3)
Prerequisite: EE 347 or consent of the instructor.
Advanced microprocessors such as Pentium series, RISC, and CISC. Hardware features and new instructions. Support for virtual memory, paging, privilege levels, multitasking and internal cache. Floating point coprocessors. Embedded controllers, on-chip resources and applications.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*447. Design of Electronic Systems (3)
Prerequisites: EE 301 or 435, 346, 400D, 430.
Extensive laboratory projects. Design of analog and digital systems. Computer-aided design including, for example, hardware descriptive language (HDL) and SPICE.
(Lecture-problems 2 hours. laboratory 3 hours) Letter grade only (A-F).

## 448./548. Wireless and Mobile Networks and Security in Wireless Networks (3)

Prerequisites: EE 445 or equivalent and EE 482 or equivalent. Wireless and Mobile Ad-hoc Networks and Security. Ad-hoc and geographic routing, resource discovery, MAC, IP-mobility, mobility modelling, wired-wireless networks, security aspects. Lab Projects will include use of tools such as OPNET, Ethereal, Sniffer, Scanner, IDS, etc.
Advanced project required for EE 548. (Lecture-problems 3 hours) Letter grade only (A-F).

## 449./549. Topics in Multimedia and Hypermedia (3)

Prerequisite: EE 483 or equivalent.
Theoretical and practical issues in designing multimedia systems, design and implementation of interactive multimedia and hypermedia applications including interactive television (e.g., video-on-demand, eLearning), hypermedia systems (e.g., the World Wide Web), and video conferencing and groupware. Emphasis placed on current design issues and research topics.
Extra project for graduate students. (Lecture-problems 3 hours) Letter grade only (A-F).
*450. Electronic Control of Motors (3)
Prerequisites: EE 350, 370.
Characteristics of semiconductor power switches. Modeling and application of control theory to various types of motors. Bidirectional and four-quadrant converter topologies for motion control. Selection of drives to control AC and DC motors. Uninterruptible power supplies and adjustable speed drives. (Lecture-problems 3 hours) Letter grade only (A-F).
*452. Computer Applications in Power Systems (3)
Prerequisite: EE 350, or consent of instructor.
Modeling of power generation, transmission, and distribution systems, load-flow analyses, short-circuit studies, voltage drop and power loss calculations, transient stability and optimal power flow analyses. Application of specialized computer software for power system design and analyses.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 453./553. Protection of Power Systems (3)

Prerequisites: EE 310, 350.
Protective relays, instrument transformers, low-voltage and highvoltage circuit breakers, protection of generators and motors, transformer protection and transmission line protection. Relay coordination and commercial power systems. Application of computer programs for protective device coordination. Additional projects required for EE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).
455./555. Space Electric Power Systems (3)

Prerequisites: EE 330, 350.
A comprehensive treatment of characteristics of and requirements from spacecraft power systems, power sources, power conversion and control. Energy storage, electrical equipment, power converters and loads, power management. Future space missions and technological needs. Additional projects required for EE 555.
(Lecture-problems 3 hours) Letter grade only (A-F).
*458. Design of Power System Components (3)
Prerequisites: EE 330, 400D, and either 450, 452, or 453.
Design of electrical, electronic and electromechanical components required for power conversion, control, transmission, distribution, protection and measurements in terrestrial and space electric power systems.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## *460. Electromagnetic Fields (3)

Prerequisite: EE 310.
Electric and magnetic field theory including propagation of planewaves in lossless and dissipative media. Maxwell's equations. Transmission lines.
(Lecture-problems 3 hours) Letter grade only (A-F).
*462. Electromagnetics and Applications to Wireless Systems (3)
Prerequisite: EE 310.
Electromagnetic field theory including transmission lines, vector fields, electrostatics and magnetostatics. Maxwell's equations and plane wave propagation. Waveguides and microstrip-RF circuit principles and devices. Radiation and antenna design. Wireless communication systems including satellite and cell-phone technologies.
Not open for credit to students with credit in EE 460 or 464. (Lectureproblems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*464. Electromagnetics and Applications to Electro-Optics (3)

Prerequisite: EE 310.
Electromagnetic field theory including transmission lines, vector fields, electrostatics and magnetostatics. Maxwell's equations and plane wave propagation. Electromagnetic formulation of geometric and Fourier optics. Semiconductor and gas laser applications to fiber-optic communication systems and electro-optic devices.
Not open for credit to students who have credit in EE 460 or 462. (Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*470. Digital Control (3)
Prerequisites: EE 370L, 386.
Analysis and synthesis of digital control systems. General application of both the Z-transform and the state-space approach for discrete system design.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*471. Design of Control Systems (3)
Prerequisite: EE 400D. Corequisite: EE 470.
Design of compensators using root-locus and Bode-plot methods. Design of state-space control systems and observers. Computer-aided design.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
474./574. Robot Dynamics and Control (3)

Prerequisite: EE 411 or 511 or consent of the instructor.
Basic methodology for analysis and design of robotic manipulators. Classification of robots. Homogeneous transformations, kinematics, dynamics, trajectory planning and control of robots. Application of robots in flexible manufacturing.
Additional projects required for EE 574. (Lecture-problems 3 hours) Letter grade only (A-F).

## 476./576. Neural Networks and Fuzzy Logic (3)

Prerequisite or Corequisite: EE 486 or consent of instructor.
Principles and application of artificial neural networks and fuzzy logic. Mechanisms of supervised and unsupervised neural networks. Fuzzy control systems. Applications in signal processing, communications, control, and other areas.
Additional projects required for EE 576. Not open for credit to students with credit in EE 589/689. (Lecture-problems 3 hours) Letter grade only (A-F).

## 481./581. Satellite Communication Systems (3)

Prerequisite: EE 482.
Basic orbital mechanics, link analysis, multiple access architectures and protocols, FDMA, TDMA, and CDMA systems. Synchronization techniques, modulation and coding techniques. Security and spread spectrum requirements. System design.
Additional projects required for EE 581. (Lecture-problems 3 hours) Letter grade only (A-F).

## *482. Communication Systems II (3)

Prerequisite: EE 382.
Information sources and communication systems. Orthogonal series representation of signals, pulse and digital modulation techniques, band-pass digital communication systems, special topics in communications.
(Lecture-problems 3 hours) Letter grade only (A-F).
*483. Digital Image Processing (3)
Prerequisite: MATH 370A.
Image formation. Image detectors and their characteristics. Perception, image models. Sampling and quantization. Pixel relationships. Statistical characterization of discrete images - probability density models. Image fidelity criteria and image intelligibility. Image transforms. Image enhancement techniques.
(Lecture-problems 3 hours) Letter grade only (A-F).
*486. Digital Signal Processing for Multimedia Communications (3)
Prerequisite: EE 386.
Discrete-time signals and systems, discrete Fourier transform, fast Fourier transform, spectral estimation, interpolation and decimation, filter design and structures and applications to multimedia communications. Laboratory projects for image processing, FFT receiver, signal detection, digital phase-locked loop.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*488. Communication System Design (3)
Prerequisite or Corequisite: EE 400D, 430, 430L, 482.
Design of Communication systems/subsystems and their implementation in software and hardware. Design of Capstone Senior Project in the area of Communication systems.
(Lecture-problems 2 hours, laboratory 3 hours). Letter grade only (A-F).
*489. Digital Signal Processing Design (3) S
Prerequisite: EE 400D. Prerequisite or corequisite: EE 486 or consent of instructor.
Design, implementation, and real-time testing of projects such as FIR filters, IIR filters, tone generator, 32-bit addition and multiplication, FFT spectrum analyzer. All projects are simulated in fixed-point arithmetic with MATLAB or C and TMS320C54x assembly code in bit-exact. (Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*490. Special Problems (1-3)
Prerequisites: Minimum G.P.A. of 2.5 and consent of instructor.
Assigned topics in technical literature or laboratory projects and reports.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 492. Instrumentation and Data Acquisition for Engineering

 Applications (3)Prerequisites: (EE 210 and 210L, or 211 and 211L), (CECS 174 or MAE 205), and (EE 370 or MAE 376), or consent of instructor.

Concepts of instrumentation, data acquisition and computer-based control of industrial systems. Topics include signal conditioning, software and hardware for data acquisition and computer-based control, graphical programming and virtual instrumentation.
(Lecture-problems 2, laboratory 3 hours) Letter grade only (A-F).

## GRADUATE LEVEL

## 505./605. Advanced Engineering Mathematics for Electrical

 Engineers (3)Prerequisites: EE 401 or equivalent or consent of instructor. Boundary-value problems and generalized Fourier (or eigenfunction) expansions. Review of Fourier series. Fourier transforms (FT, FFT and STFT), wavelet transform and its computer implementation.
Z-transform. Hilbert transform. Solutions of partial differential equations using methods of separation of variables, etc.
Master's students register in EE 505; Ph.D. students register in EE 605. Additional projects required for EE 605. (Lecture-problems 3 hours) Letter grade only (A-F).

## 506./606. Theory and Practice of Biomedical Instrumentation (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of instructor.
Advanced design concepts and practical utilization of biomedical instrumentation. Transduction of physiological parameters.
Theory and practice.
Master's students register in EE 506; Ph.D. students register in EE 606. Additional projects required for EE 606. (Lectureproblems 3 hours) Letter grade only (A-F).

## 507./607. Advanced Biomedical Systems (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of instructor.
Novel trends in biotechnology, design and organization of modern hospital systems and utilization of advanced technologies. Modeling and simulation of physiological and medical systems.
Master's students register in EE 507; Ph.D. students register in EE 607. Additional projects required for EE 607. (Lectureproblems 3 hours) Letter grade only (A-F).

## 508. Probability Theory and Random Processes (3)

Prerequisite: EE 380.
Probability spaces, random vectors and processes, convergence concepts, stationarity and ergodic properties, secondorder moments and linear systems, correlation and spectral representations. Some applications of random processes.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 509. Network Theory (3)

Prerequisites: EE 386, 410 or 430.
Network classifications and study of non-linear circuits. Analysis of linear networks using topological and state-space techniques. Characterization of networks using scattering and other parameters. Tellegen's theorem and its application.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 510. Circuit Synthesis (3)

Corequisite: EE 509.
Synthesis of passive lumped networks, cascade synthesis (link with filter synthesis), realization of commensurate distributed networks, discrete passive networks.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 511. Linear Systems Analysis (3)

Prerequisite: EE 411 or 470 or equivalent mathematical maturity.
Review of linear algebra and z-transforms. Continuous and discrete-time systems. Sampled data systems. State-space linear system analysis. Stability, reachability, and observability. Minimal realization. State feedback and pole assignment. Asymptotic observers. Examples of applications. Project on a related subject. (Lecture-problems 3 hours) Letter grade only (A-F).
514. Advanced Circuit Synthesis and Design (3) Prerequisite: EE 510.
Scattering synthesis in (s-z) domains, wave digital filters. Lossless bounded-real two-pair and orthogonal digital filters with an emphasis on structures suitable for VLSI implementation.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 527. Digital Filter Design and Audio Processing (3)

Prerequisite: EE 486 or consent of instructor.
Frequency and time domain analysis using FFT, FIR, and IIR filter design and implementation techniques. Principles of digital audio processing, compression/decompression. Applications of audio coding standards, such as MPEG audio and G.729.
Not open for credit to students with credit in EE 513. (Lectureproblems 3 hours) Letter grade only (A-F).

## 528./428. Speech Signal Processing (3)

Prerequisite or Corequisite: EE 486 or consent of instructor. Principles and engineering applications of speech signal processing. Speech synthesis, recognition, encoding, and compression. Applications of neural networks.
Additional projects required for EE 528. (Lecture-problems 3 hours) Letter grade only (A-F).

## 531. CMOS Electronics (3)

Prerequisite: EE 430.
Electronic design automation CAD tools, silicon compilers, CMOS design, BiCMOS design (technologies, modeling, device characterization and simulation), CMOS and BiCMOS subcircuits, amplifiers, op-amps and systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 532./632. Analog Signal Processing (3)

Prerequisite: EE 430 or consent of instructor.
Basic CMOS circuit techniques. Low-voltage and current-mode signal processing. Switched-capacitor (SC)and switched-current (SI) circuits such as amplifiers, integrators, S/H circuits, filters, oscillators, D/A and A/D converters, etc. Advanced techniques for corrections of nonideal behavior. Analysis and simulation projects.
Master's students register in EE 532; Ph.D. students register in EE 632. Additional projects required for EE 632. (Lecture-problems 3 hours) Letter grade only (A-F).

## 533./633. Quantum and Optical Electronics (3)

Prerequisites: EE 430 and 460 or equivalent.
Modern quantum and optical concepts of relevance in lasers, fiber optics, optical technology and semiconductor solid state electronics. Basic theory and applications to state-of-the-art electronics engineering.
Master's students register in EE 533; Ph.D. students register in EE 633. Additional projects required for Ph.D. students. (Lectureproblems 3 hours) Letter grade only (A-F).

## 534./434. Mixed-Signal IC Design (3)

Prerequisites: EE 201 and EE 330, or 331, or consent of instructor. CMOS fabrication. Component layout. MOSFET modeling. Mixedsignal devices such as D/A and A/D converters and phase-locked loops. Substrate Noise coupling. System-on-chip considerations. Design using CAD tools.
Additional projects required for EE 534. (Lecture-problems 2 hours, Laboratory 3 hours) Letter grade only (A-F).

## 535. VLSI Design (3)

Prerequisite: EE 430.
Techniques for designing Very Large Scale Integrated (VLSI) circuits using n-channel metal oxide semiconductors (n-MOS).
Not open for credit to students with credit in EE 520. (Lectureproblems 3 hours) Letter grade only (A-F).

## 536./436. Microfabrication and Nanotechnology (3)

Prerequisites: EE 330; EE 320 or PHYS 254; or MAE 300.
Techniques and technology of miniaturization of electrical, mechanical, optical, and opto-electronic devices in sizes from millimeters to nanometers are presented. Design examples of sensors, microlenses, cantilevers, and micromotors are covered and process fabrication using latest technology demonstrated.
Additional projects required for EE 536. (Lecture-problems 3 hours) Letter grade only (A-F).

## 540. Advanced Digital System and Computer Architecture (3)

Prerequisite: EE 446 or equivalent. Strongly recommended: EE 546.

High level computer architectures including studies of network processors, security processing, embedded computers; system design and implementation approaches including ASIC's, SOC's,
and networks on chip concepts. Simulation and design tools. Project required.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 545. Computer Communication Networks (3)

Prerequisite: EE 445 or consent of instructor.
Design and analysis of computer communications networks including their topologies, architectures, protocols, and standards.
LAN, WAN environments and access methods. Ethernet, ATM, bridges, routers, gateways and intelligent hubs. TCP/IP and other Networking protocols. Load balancing, traffic monitoring, use of simulation tools.
(Lecture-problems-computer projects 3 hours) Letter grade only (A-F).

## 546. Advanced Microprocessors and Embedded Controllers II (3)

Prerequisite: EE 446 or consent of the instructor.
Advanced concepts for embedded controllers, mobile processors, network processors, embedded Internet, and embedded Internet devices. Parallelism, multithreading, pipelining, coherence protocols, interconnection networks, clustering. Simulation and analysis tools. Project required.
(Lecture-problems 3 hours) Letter grade only (A-F).
548./448. Wireless and Mobile Networks and Security in Wireless Networks (3)
Prerequisites: EE 445 or equivalent and EE 482 or equivalent.
Wireless and Mobile Ad-hoc Networks and Security. Ad-hoc and geographic routing, resource discovery, MAC, IP-mobility, mobility modelling, wired-wireless networks, security aspects. Lab Projects will include use of tools such as OPNET, Ethereal, Sniffer, Scanner, IDS, etc.
Advanced project required for EE 548. (Lecture-problems 3 hours) Letter grade only (A-F).

## 549./449. Topics in Multimedia and Hypermedia (3)

Prerequisite: EE 483 or equivalent.
Theoretical and practical issues in designing multimedia systems, design and implementation of interactive multimedia and hypermedia applications including interactive television (e.g., video-on-demand, eLearning), hypermedia systems (e.g., the World Wide Web), and video conferencing and groupware. Emphasis placed on current design issues and research topics.
Extra project for graduate students. (Lecture-problems 3 hours) Letter grade only (A-F).

## 550. Power Electronics and Applications (3)

Prerequisites: EE 350 and 430.
Power converters: rectifiers, inverters, choppers and cycloconverters. PWM and PFM techniques. Harmonics and filters. Magnetics. Applications in motor controls in industrial systems, energy conversion, HVDC transmission, aircraft and spacecraft power systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 551. Theory and Applications of DC/DC Converters (3)

Prerequisite: EE 550 or consent of instructor.
Modeling, analysis, design and application of DC/DC switch-mode converters.
(Lec-prob 3 hrs ) Letter grade only (A-F).
552. Electric Machines and Robotic Applications (3)

Prerequisites: EE 370, 452 or consent of instructor.
Applications and design of small electric machines including stepper and brushless DC motors with emphasis on robotic control. Performance characteristics of electric machines interfacing with robotic systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 553./453. Protection of Power Systems (3)

Prerequisites: EE 310, 350.
Protective relays, instrument transformers, low-voltage and highvoltage circuit breakers, protection of generators and motors, transformer protection and transmission line protection. Relay coordination and commercial power systems. Application of computer programs for protective device coordination. Additional projects required for EE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).
555./455. Space Electric Power Systems (3)

Prerequisites: EE 330, 350.
A comprehensive treatment of characteristics of and requirements from spacecraft power systems, power sources, power conversion and control. Energy storage, electrical equipment, power converters and loads, power management. Future space missions and technological needs.
Additional projects required for EE 555. (Lecture-problems 3 hours) Letter grade only (A-F).

## 563. Microwave Engineering (3)

Prerequisite: EE 462.
Propagation of guided waves in lossless and dissipative media.
Radiation and antenna design. Waveguides, microstrip, microwave circuits.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 565. Photonics (3)

## Prerequisite: EE 464.

Maxwell's equations applied to electro-optic devices and systems. Electromagnetic formulation of geometrical and Fourier optics.
Topics include optics in semiconductors, fiber optics and integrated optics, lasers and holography.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 568./668. Wavelet Theory and Applications (3)

Prerequisites: EE 505, and one of the following computer languages: MATLAB, C++, JAVA, or consent of instructor. Justification of the need for wavelets. Continuous wavelet transforms (CWT), multiresolution analysis (MRA), and filter banks. Applications to digital signal, image processing, communications, biomedical engineering, etc. Computer Implementation of various algorithms.
Master's students register in EE 568; Ph.D. students register in EE 668. Additional projects required for EE 668. (Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 569D./669D. Data Compression (3)

Prerequisite: One of the following computer languages: MATLAB, C++, JAVA, or consent of instructor.
Justification of the need for data compression. Lossy and Lossless compression and a comparison of various compression methods such as wavelets., Transformation, quantization and coding methods will be the basis for this course. Computer implementation of data compression algorithms.
Master's students register in EE 569D; Ph.D. students register in EE 669D. Additional projects required for EE 669D. (Lectureproblems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 574./474. Robot Dynamics and Control (3)

Prerequisite: EE 411 or 511 or consent of the instructor.
Basic methodology for analysis and design of robotic manipulators. Classification of robots. Homogeneous transformations, kinematics, dynamics, trajectory planning and control of robots. Application of robots in flexible manufacturing.
Additional projects required for EE 574. (Lecture-problems 3 hours) Letter grade only (A-F).

## 575./675. Non-Linear Control Systems (3)

Prerequisite: EE 511 or consent of instructor.
Methodologies and results dealing with stability and robust stabilization of non-linear systems applied to robotics, aerospace, artificial neural networks, etc. Phase plane analysis, limit cycles, Lyapunov stability theory and its extension, Positive real transfer matrix and passivity, feedback linearization and stabilization, tracking, robust control.
Ph.D. students register in EE 675. Additional projects for EE 675 students. (Lecture-problems 3 hours) Letter grade only (A-F).

## 576./476. Neural Networks and Fuzzy Logic (3)

Prerequisite or Corequisite: EE 486 or consent of instructor.
Principles and application of artificial neural networks and fuzzy logic. Mechanisms of supervised and unsupervised neural networks. Fuzzy control systems. Applications in signal processing, communications, control, and other areas.
Additional projects required for EE 576. Not open for credit to students with credit in EE 589/689. (Lecture-problems 3 hours) Letter grade only (A-F).

## 580. Statistical Communication Theory (3)

Prerequisites: EE 482, 505 and 508 or consent of instructor. Power spectral density of analog and digital communication signals. Matched filters. Signal-to-noise-ratio performance analysis for analog and pulse modulation systems. Vector space representation of digital signals. Error rate analysis for various signaling formats. Optimum digital receivers. Fading channels. (Lecture-problems 3 hours) Letter grade only (A-F).

## 581./481. Satellite Communication Systems (3)

Prerequisite: EE 482.
Basic orbital mechanics, link analysis, multiple access architectures and protocols, FDMA, TDMA, and CDMA systems. Synchronization techniques, modulation and coding techniques. Security and spread spectrum requirements. System design.
Additional projects required for EE 581. (Lecture-problems 3 hours) Letter grade only (A-F).

## 582. Spread Spectrum Communication Systems (3)

Prerequisite: EE 580 or consent of instructor.
Spread spectrum (SS) techniques. Direct sequence systems, frequency hopped systems. Generation and properties of pseudo random sequences. Electronic jamming and interference. Processing gain, carrier synchronization, code acquisition and tracking, information modulation and coding. Applications include ranging, CDMA etc.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 583./683. Digital Image Processing (3)

Prerequisite: EE 505 or consent of instructor.
Acquiring Images. Correcting Imaging defects. Image enhancement. Segmentation and threshholding. Processing Binary images. Tomography. Three dimensional Imaging. Some image data compression techniques.
Masters students register in EE 583; Ph.D. students register in EE 683. Additional projects required for EE 683. (Lecture-problems 3 hours) Letter grade only (A-F).

## 584. Information Theory and Coding (3)

Prerequisites: EE 482 and 508.
Information measures, source coding, Shannon's first theorem, mutual information and channel capacity, Shannon's second theorem, coding techniques for reliable information transmission over noisy channels.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 585./685. Advanced Digital Signal Processing (3)

Prerequisite: EE 486 or consent of the instructor.
Advanced topics in digital signal processing and applications including adaptive filters, spectral estimation and multimedia standards: JPEG, MPEG. State space description of linear discrete time systems.
Master's students register in EE 585; Ph.D. students register in EE 685. Additional projects for EE 685. (Lecture-problems 3 hours) Letter grade only (A-F).

## 586. Real-Time Digital Signal Processing (3)

Prerequisite: EE 486, EE or CECS 440, or consent of instructor.
Digital signal processors architecture and language. Real-time DSP considerations and limitations. Digital filter and signal processing system implementations.
(Lecture-problems 3 hours) Letter grade only (A-F).
590. Special Topics in Electrical Engineering (3)

Prerequisites: Graduate standing in electrical engineering and consent of instructor.

Selected topics from recent advances in electrical engineering Course content will vary from year to year.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units. (Lecture-problems 3 hours) Letter grade only (A-F).

## 591. Adaptive Systems (3)

Prerequisite: EE 508.
Adaptive systems and their applications to communication, control, and signal processing systems
(Lecture - problems 3 hours) Letter grade only (A-F).
600. Graduate Seminar and Presentation (1)

Prerequisites: Graduate standing and advancement to candidacy. Lectures by faculty and guests on advanced topics. A report and presentation are required.
(Seminar 1 hour) Letter grade only (A-F).

## 605./505. Advanced Engineering Mathematics for Electrical Engineers (3)

Prerequisite: EE 401 or equivalent or consent of instructor.
Boundary-value problems and generalized Fourier (or eigenfunction) expansions. Review of Fourier series. Fourier transforms (FT, FFT and STFT), wavelet transform and its computer implementation. The Z-transform. The Hilbert transform. Solutions of partial differential equations using the methods of separation of variables, etc.
Master's students register in EE 505; Ph.D. students register in EE 605. Additional projects required for EE 605. (Lecture-problems 3 hours) Letter grade only (A-F).

## 606./506. Theory and Practice of Biomedical Instrumentation (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of instructor.
Advanced design concepts and practical utilization of biomedical instrumentation. Transduction of physiological parameters. Theory and practice.
Master's students register in EE 506; Ph.D. students register in EE 606. Additional projects required for EE 606. (Lecture-problems 3 hours) Letter grade only (A-F).

## 607./507. Advanced Biomedical Systems (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of instructor.
Novel trends in biotechnology, design and organization of modern hospital systems and utilization of advanced technologies. Modeling an simulation of physiological and medical systems.
Master's students register in EE 507; Ph.D. students register in EE 607. Additional projects required for EE 607. (Lecture-problems 3 hours) Letter grade only (A-F).
610. Seminar in Circuit Theory and Design (3)

Prerequisites: EE 509 and EE 510 or EE 527.
Intensive study of current professional literature and recent techniques related to circuit theory.
(Seminar 3 hours) May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 632./532. Analog Signal Processing (3)

Prerequisite: EE 430 or consent of instructor.
Basic CMOS circuit techniques. Low-voltage and current-mode signal processing. Switched-capacitor (SC)and switched-current (SI) circuits such as amplifiers, integrators, S/H circuits, filters, oscillators, D/A and A/D converters, etc. Advanced techniques for corrections of nonideal behavior. Analysis and simulation projects.
Master's students register in EE 532; Ph.D. students register in EE 632. Additional projects required for EE 632. (Lecture-problems 3 hours) Letter grade only (A-F).

## 633./533. Quantum and Optical Electronics (3

Prerequisites: EE 430 and 460 or equivalent.
Modern quantum and optical concepts of relevance in lasers, fiber optics, optical technology and semiconductor solid state electronics. Basic theory and applications to state-of-the-art electronics engineering.
Master's students register in EE 533; Ph.D. students register in EE 633. Additional projects required for Ph.D. students. (Lectureproblems 3 hours) Letter grade only (A-F).

## 668./568. Wavelet Theory and Applications (3)

Prerequisites: EE 505, and one of the following computer languages: MATLAB, C++, JAVA, or consent of instructor.
Justification of need for wavelets. Continuous wavelet transforms (CWT), multiresolution analysis (MRA), filter banks. Applications to digital signal, image processing, communications, biomedical engineering, etc. Computer Implementation of various algorithms.
Master's students register in EE 568; Ph.D. students register in EE 668. Additional projects required for EE 668. (Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 669D./569D. Data Compression (3)

Prerequisite: One of the following computer languages: MATLAB, C++, JAVA, or consent of instructor.
Justification of the need for data compression. Lossy and Lossless compression and a comparison of various compression methods such as wavelets., Transformation, quantization and coding methods will be the basis for this course. Computer implementation of data compression algorithms.
Master's students register in EE 569D; Ph.D. students register in EE 669D. Additional projects required for EE 669D. (Lectureproblems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 670. Seminar in Control Systems (3)

Study of selected topics in the areas of synthesis and design of optimum control systems.
(Seminar 3 hours) Letter grade only (A-F).
675/575. Non-Linear Control Systems (3)
Prerequisite: EE 511 or consent of instructor.
Methodologies and results dealing with stability and robust stabilization of non-linear systems applied to robotics, aerospace, artificial neural networks, etc. Phase plane analysis, limit cycles, Lyapunov stability theory and extension, Positive real transfer matrix and passivity, feedback linearization and stabilization, tracking, robust control.
(Ph.D. students register in EE 675) Additional projects for EE 675 students. (Lecture-problems 3 hours) Letter grade only (A-F).

## 683./583. Digital Image Processing (3)

Prerequisite: EE 505 or consent of instructor.
Acquiring Images. Correcting Imaging defects. Image enhancement. Segmentation and threshholding. Processing Binary images. Tomography. Three dimensional Imaging. Some image data compression techniques.
Masters students register in EE 583; Ph.D. students register in EE 683. Additional projects required for EE 683. (Lecture-problems 3 hours) Letter grade only (A-F).

## 685./585. Advanced Digital Signal Processing (3)

Prerequisite: EE 486 or consent of the instructor.
Advanced topics in digital signal processing and applications including adaptive filters, spectral estimation and multimedia standards: JPEG, MPEG. State space description of linear discrete time systems.
Master's students register in EE 585; Ph.D. students register in EE 685. Additional projects for EE 685. (Lecture-problems 3 hours)

Letter grade only (A-F).
697. Directed Research (1-3)

Prerequisite: Graduate Standing.
Theoretical and experimental problems in electrical engineering requiring intensive analysis.
Letter grade only (A-F).

## 698. Thesis or Industrial Project (3-6)

Prerequisite: Advancement to Candidacy.
Planning, preparation and completion of a thesis (total 6 units), or industrial project (3 units), in electrical engineering.
Letter grade only (A-F).

# ENGINEERING TECHNOLOGY PROGRAMS <br> College of Engineering 

The Engineering Technology (ET) Programs at CSULB serve society by graduating well-prepared professionals, who are provided with an excellent education in the fundamentals of Engineering Technology through a combination of theory and laboratory practice, and who are able to apply their knowledge and transform their ideas into working systems. The goals of these ET programs are achieved through a number of educational objectives by the faculty participating in these programs:

1. Preparing students to commit to life-long learning, continuing self-development and the ethical practice of Engineering Technology.
2. Providing well-designed curricula, that meet the industry needs.
3. Providing students with a solid foundation on a broad range of engineering technology areas, that are required of a professional technologist entering the workforce.
4. Training students in analysis, applications and hands-on laboratory work.
5. Providing students with opportunities to enhance their communication skills by means of writing reports, oral presentations and teamwork.
6. Providing modern and well-equipped instructional laboratories.
In addition, an Engineering Technology Advisory and Development Council (ETADC), composed of leaders actively engaged in areas of relevant engineering technology continually provides information and guidance about industrial developments in methods, materials and techniques so that the programs reflect the best of current practices. The members examine various aspects of the programs and make recommendations for changes in curriculum content, methods and/or facilities. Present membership in the council is made up of representatives from the different sectors of the American industries or corporations.

The ET programs are administered by the following four departments in the College of Engineering: Chemical Engineering (CHE), Civil Engineering and Construction Engineering Management (CECEM), Computer Engineering and Computer Science (CECS), Electrical Engineering (EE), and Mechanical and Aerospace Engineering (MAE).

## General Requirements

All students in either the BSET, BSEET, or BSCET options must receive a minimum grade of " C " in each of the prerequisite courses before enrolling in any Engineering Technology course. In addition to any other all-university requirements regarding grade point averages for graduation, student must achieve a minimum of 2.0 average in all Engineering Technology courses.

## Bachelor of Science in Engineering Technology

## Option in Technology and Engineering Education (code ET_BS15) (120 units)

Administered by the Computer Engineering and Computer Science Department.
Faculty Advisor - Barbara Mack (Computer Engineering and Computer Science)
CECS Department Office - ECS 540
Faculty Advisor's Office - ECS 524
Faculty Advisor's Telephone -(562) 985-1595
The Technology and Engineering Education Option is for students preparing to teach technology and programming courses at the middle or high school level. Thirty units of postbaccalaureate coursework are also required for the Clear Single Subject Teaching Credential in Technology Education. See the Single Subject Teacher Education Program in the Graduate School of Education (ED1-54) for more specific information about courses and other requirements. This option is not accredited.

Students earning this degree are well prepared to take the ITE and other California Subject Examinations for Teachers (CSET). Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student ,teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Industrial and Technology Education Advisor early to plan their program.

The Industrial and Technology Education Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: CECS 110, 174, 200, 202, 261, 274; CEM 121, 125; ET 170; MAE 272; MATH 122; PHYS 100A \& $100 B$.

Upper Division: CECS 310, 400, 401, 410; ENGR 302I, 304, 310, 375I, 391; ET 302, 302L, 307, 365, 365L, 410.

Plus 6 elective units chosen from: ET 313, 313L, 319, 329, 329 L , and 331.

## Option in Environmental Technology (code ET_BS06) (133 units)

Administered by the Chemical Engineering Department. Faculty Advisor - Ashok Naimpally (Chemical Engineering) CHE Department Office - VEC 136
Faculty Advisor's Office - EN2 106
Faculty Advisor's Telephone - (562) 985-1508
The Environmental Technology Option program is to provide career educational opportunities to students whose technological interests and aptitudes
are applications-oriented. The goal is to produce occupational-ready college graduates with practical skills and potential for growth to meet defined technical manpower needs, primarily for California's environmental industry. To achieve these goals, emphasis is placed on meeting students' needs through lecture and laboratory teaching, through the co-op program with local industry, and through other relevant learning experiences.

In addition to acquiring technical knowledge and skills, graduates will be able to communicate well. They will be prepared not only for immediate employment but for continuing development as citizens and responsible human beings as well. This will be accomplished by requiring appropriate courses in technical fields, communications, and in general education courses. Furthermore the ethical considerations of environmental issues will have a major role throughout the curriculum. Finally, every effort is made to help the students in proper job placement upon graduation. This option is not accredited.

## Prerequisite Core

Lower Division: CHEM 111A, MATH 120, ENGR 203, ENGR 203L, PHYS 100 A\&B, ET 101, 170, 202, 202L, 204, 205, 205L.

Upper Division: ECON 300, ET 301, 301L, 307, 309 (or ENGR 310), 335, 335L, 410.

## Requirements

Lower Division: ET 206, 209, 210, 213.
Upper Division: ET 303, 319, 329, 329L, 333, 333L, 400, 400L, 449, 449L.

Select at least 11 units of approved electives in consultation with an advisor from the following courses: ET 407, 409F, 476, 485, H/SC 422.

## Bachelor of Science in Computer Engineering Technology (code ET__BS16) (138 units)

Faculty Advisor - R-T "Ray" Wang (Electrical Engineering) EE Department Office - VEC 512
Faculty Advisor's Office - ET 110
Faculty Advisor's Telephone - (562) 985-1695
The primary objective of the Computer Engineering Technology program, accredited by TAC of ABET (Accreditation Board for Engineering and Technology Inc., 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7710, website: http://www.abet. org), is to prepare graduates to pursue careers related to manufacturing, integration, and support of computer systems. Emphasis is placed on specific job skills required of entry level professionals in computer industry, including systems analysis and design, data administration, networking, data communications, data acquisition, oral and written communication, and management principles. The Computer Engineering Technology program is available to students interested in the manufacturing of computers and the applications and operations aspects of computer hardware and software. The program is designed to meet ABET criteria for accredited programs in engineering technology. The graduates of this program should find employment in industry and organizations where a combination of practical hardware and software background is important.

## Requirements

Lower Division: CHEM 111A; MATH 120; ENGR 203, 203L, PHYS 100 A\&B; ET 101, 170, 202, 202L, 204, 205, 205L, 250, 250L, 252, 252L, 255, 255L, 260, 260L, 286, 286L.

Upper Division: ET 309, 311, 360, 360L, 386, 386L, 387, 387L, 388, 388L, 410, 442, 442L, 486, 486L, 487, 487L, 488, 488L, 489, 489L, 492, 492L, 494, 494L, 497, 497L.

Select at least 3 units from the following, in consultation with an advisor: ET 301, 301L, 409E, 491, 491L.

## Fieldwork Requirements

Fieldwork experience is required for the BS in Computer Engineering Technology, consisting of no less than three months full-time (40 hours/week) (or equivalent part-time) of employment in an approved industry or governmental agency. The student must hold a position equivalent to a technician or higher which affords the opportunity to exercise responsibility usually given to those who have completed two years of college. The fieldwork must be completed prior to graduation, be certified and approved by the faculty of the Department.

## Bachelor of Science in Electronics Engineering Technology (code ET__BS02) (138 units) <br> Faculty Advisor - R-T "Ray" Wang (Electrical Engineering) EE Department Office - VEC 512 Faculty Advisor's Office - ET 110 Faculty Advisor's Telephone - (562) 985-1695

The Electronics Engineering Technology program, accredited by TAC of ABET (Accreditation Board for Engineering and Technology Inc., 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7710, website: http://www.abet.org), prepares the student for a position as a technologist, in such industries as aerospace, computers, communications, biomedical, chemical, power, etc. Students are offered a wide range of training in topics such as instrumentation, controls, microprocessors, microelectronics, biomedical electronics, communications, motors and generators, robotics, computer applications, programming and interfacing. Moreover the program emphasizes written and oral communications skills as well as modern methods of industrial administration and supervision. The program is designed to meet ABET criteria for accredited programs in engineering technology.

## Requirements

Lower Division: CHEM 111A; MATH 120; ENGR 203, 203L, PHYS 100 A\&B; ET 101, 170, 202, 202L, 204, 205, 205L, 250, 250L, 252, 252L, 255, 255L, 260, 260L, 286, 286L.

Upper Division: ET 309, 311, 341, 341L, 350, 350L, 360, 360L, 386, 386L, 387, 387L, 388, 388L, 410, 442, 442L, 488, 488L, 441, 444, 447, 447L, 460, 460L.

Select at least 2 units from the following, in consultation with an advisor: ET 301, 301L, 409B, 445, 445L.

## Fieldwork Requirements

Fieldwork experience is required for the BS in Electronics Engineering Technology, consisting of no less than three months full-time (40 hours/week) (or equivalent part-time) of employment in an approved industry or governmental
agency. The student must hold a position equivalent to a technician or higher which affords the opportunity to exercise responsibility usually given to those who have completed two years of college.

The fieldwork must be completed prior to graduation, be certified and approved by the faculty of the Department.

## Engineering Technology Courses (ET)

## LOWER DIVISION

## 101. Introduction to Engineering Technology (1)

Survey of professional activities and environment of engineering technologist. Covers role of technologist in American industry, the history of technology and the growth and future of those professionals who hold the Bachelor of Science degree in Engineering Technology.
(Lecture-Discussion 1 hour) Credit/No Credit grading only.

## 170. Engineering Drafting and Design (3)

Prerequisite: Sophomore standing.
Graphic communication including freehand sketching. Introduction to blueprinting reading and computer aided drafting. Emphasis on engineering drafting practices; general standards, tolorances, thread series, welding joints, surface finishes, fasteners, structural shapes.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).
202. Probability and Statistics for Technology (3)

Prerequisite: High school algebra. Corequisite: ET 202.
Statistics and probability theory, sampling, correlation, regression as applied to Engineering Technology.
(Lecture-problems 3 hours) Letter grade only (A-F).
202L. Probability and Statistics for Technology Laboratory (1)
Prerequisites: 2 yrs high school algebra, geometry, and intermediate algebra (or MATH 010) or equivalent. Corequisite: ET 202.
Laboratory exercises in statistics and probability theory, sampling, correlation, regression as applied to Engineering Technology. Simulation using statistical packages.
(Laboratory 3 hours) Letter grade only (A-F).
204. Applied Mechanics-Statics (3)

Prerequisites: MATH 120, PHYS 100A.
Force systems acting on structures, moments, equilibrium, centroids, trusses, beams, cables, frames, machines, friction, section properties, masses, both U.S. and S.I. units of measurements.
(Lecture 2 hrs, activity 2 hrs) Letter grade only (A-F).
205. Computer Systems and Programming (1)

Corequisite: ET 205L.
Overview of computer systems, computer hardware, and software development. Hardware topics include central processing unit and memory, input/output devices, storage mechanism, and communication. Software topics include programming languages, operating systems, and systems analysis and design. A programming language will be used for lab activities.
(Lecture - discussion, exercise, 1 unit) Letter grade only (A-F). Same as CEM 205

## 205L. Computer Systems and Programming Lab (1)

 Corequisite: ET 205.Laboratory exercises in computer programming to solve problems in business, manufacturing, research and simulation. An objectoriented programming language will be used for these activities.
(Laboratory 3 hours) Letter grade only (A-F). Same as CEM 205L

## 206. Introduction to Environmental Hazardous Materials and Waste Technology (3)

Prerequisites: CHEM 111A, PHYS 100A.
Overview of environmental effects of industrial pollution and history of environmental legislation. Study of industrial processes and generation of waste streams in selected industries. Introduction to concepts of sustainable development, energy conservation, waste minimization and waste treatment.
Letter grade only (A-F). (Lecture-Discussion 3 hours)

## 208. Hazardous Waste Stream Generation, Reduction, Treatment (3)

Industrial processes and waste streams in industry: electroplating, metal finishing/printed circuit board production, oil refining/ chemical production, general manufacturing, printing/graphic reproduction, agriculture/consumer services. Raw materials/ chemicals in industry as they move through industrial process, material balance of inventory. Regulations and importance of waste minimization/treatment.
Letter grade only (A-F).
209. Environmental Applications of Physical and Organic Chemistry (2)
Prerequisite: CHEM 111A.
Applications of physical and organic chemistry in environmental science and engineered environmental systems.
Letter grade only (A-F). (Lecture-Discussion 2 hours)
210. Hazardous Material and Waste Management (3) Prerequisites: CHEM 111A, ET 206.
A study of the requirements of federal, state and local regulations relating to the management of hazardous materials and hazardous wastes. Particular focus on compliance with shipping, storage, labeling, sampling, and inventory and release reporting requirements.
Letter grade only (A-F). (Lecture-Discussion 3 hours)
212. Hazardous Materials Management Application (3)

Requirements \& applications of federal, state \& local laws \& regulations relating to hazardous materials. Compliance with Department of Transportation, Occupation Safety and health Administration, Hazard Communication, Superfund Amendments and Reauthorization Act, Title III community Right to Know etc. Legal portion of hazardous materials laws; applications of these laws.
Letter grade only (A-F).

## 213. Environmental Health, Safety and Emergency Response (3)

Prerequisites: CHEM 111A, BIOL 211A, ET 206.
Hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Acute and chronic health effects produced by exposure to chemical agents.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 244. Machine Tools (1)

Corequisite: ET 244L.
Operations and use of the conventional and non-conventional machine tools.
Not open for credit to students with previous machine tools credit. (Lecture-Discussion 1 hour) Letter grade only (A-F).

## 244L. Machine Tools Laboratory (1)

Corequisite: ET 244.
Laboratory exercises using conventional and non-conventional machine tools.
Not open for credit to students with previous machine tools experience. (Laboratory 3 hours) Letter grade only (A-F).

## 250. Circuit Analysis I (2)

Prerequisite: PHYS 100B. Corequisite: ET 250L.
Fundamentals of DC theory, units of measurements, systems of units. Current, voltage, resistance, Ohm's law, power, energy. Series and parallel circuits. Methods of analysis and selected topics. Network theorems such as superposition, Thevenin's, Norton's and Millman's theorems.
(Lecture-Discussion 2 hours) Letter grade only (A-F).
250L. Circuit Analysis I Laboratory (1)
Prerequisite: PHYS 100B. Corequisite: ET 250.
Laboratory exercises will be conducted on AC and DC circuits using proto boards and power supplies, multi-meters, function generators, oscilloscopes and frequency counters.
(Laboratory 3 hours) Letter grade only (A-F).
252. Circuit Analysis II (2)

Prerequisites: MATH 120, ET 250, 250L. Corequisite: ET 252L.
Study of circuit analysis techniques in AC, including network theorems, mesh and nodal analysis, transients, time domain and phasors, magnetic circuits, sinusoidal and non-sinusoidal wave forms, resonance circuits (series and parallel), filters (low-pass, highpass, passband and bandstop).
(Lecture-Discussion 2 hours) Letter grade only (A-F).
252L. Circuit Analysis II Laboratory (1)
Prerequisites: MATH 120, ET 250, 250L. Corequisite: ET 252.
Laboratory exercises will be conducted on AC circuits using proto boards and AC power supplies, function generators, oscilloscopes, and frequency counters.
(Laboratory 3 hours) Letter grade only (A-F).
253. General Electricity (2)

Prerequisite: PHYS 100B. Corequisite: ET 253L.
Overview of electrical/electronics principles and applications including instrumentation, power distribution, and digital electronics.
Not open for credit to Electronics Option and the Computer Option students. (Lecture - discussion, exercise 2 units) Letter grade only (A-F).

## 253L. General Electricity Laboratory (2)

Prerequisite: PHYS 100B. Corequisite: ET 253.
Laboratory exercises in basic electrical/electronics circuits and applications.
Not open for credit to Electronics Option and the Computer Option students. (Laboratory 3 hours) Letter grade only (A-F).

## 255. Introduction To Digital Electronics (2)

Prerequisites: ET 250, 250L. Corequisite: ET 255L.
Combinational logic utilizing Boolean algebra and the binary numbering system. Includes Karnaugh maps, truth tables, coding, switching circuits, converters and logic circuit elements.
(Lecture-problems 2 hours) Letter grade only (A-F).
255L. Introduction to Digital Electronics Laboratory (1)
Prerequisites: ET 250, 250L. Corequisite: ET 255.
Laboratory exercises in basic logic circuits. Topics included are breadboarding, basic gates, and combinational circuits.
(Laboratory 3 hours) Letter grade only (A-F).

## 260. Solid-State Electronics I (3)

Prerequisites: ET 252, 252L. Corequisite: ET 260L.
Analysis and design of solid-state electronic circuits using diodes, bipolar, unijunction and field-effect devices.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
260L. Solid State Electronics I Laboratory (1)
Prerequisites: ET 252, 252L. Corequisite: ET 260.
Laboratory exercises in breadboarding and measurements of solidstate circuits utilizing all types of electronic measuring equipment.
(Laboratory 3 hours) Letter grade only (A-F).

## 264. Industrial Tooling (1)

Prerequisites: ET 170, 205L; corequisite: ET 264L
Design of tools for production. Typical tooling problems include working drawings and hardware.
(Lecture-Discussion 1 hour) Letter grade only (A-F).
264L. Industrial Tooling Laboratory (1)
Prerequisites: ET 170, 205L; corequisite: ET 264.
Laboratory experiments in tool design in relation to mass part production.
(Laboratory 3 hours) Letter grade only (A-F).
286. Introduction to Object-Oriented Programming (2)

Prerequisites: ET 205, 205L; corequisite: ET 286L.
Introduction to an object-oriented programming language (C++).
Problem analysis and software development methodology. Emphasis on applications to technology
(Lec-Discussion 2 hrs) Letter grade only (A-F).
286L. Introduction to Object-Oriented Programming Laboratory (1)
Prerequisites: ET 205, 205L; corequisite: ET 286.
Introduction to an object-oriented programming language (C++)
Problem analysis and software development methodology. Emphasis on applications to technology.
Letter grade only (A-F). (Laboratory 3 hours)

## UPPER DIVISION

## 301. Engineering Materials (2)

Prerequisites: ET 204, CHEM 111A; corequisite: ET 301L.
Study of physical and mechanical properties and applications of engineering materials.
Letter grade only (A-F). (Lecture-Discussion 2 hours)
301L. Engineering Materials Laboratory (1)
Prerequisites: ET 204, CHEM 111A; corequisite: ET 301.
Laboratory investigation and experiments in the application of engineering materials. Field trips.
Letter grade only (A-F). (Lab 3 hrs)

## 302. Industrial Electricity (2)

Prerequisite: PHYS 100B; corequisite: ET 302L.
Overview of electrical principles and applications in electrical manufacturing industries including instrumentation and power distribution.
Letter grade only (A-F). (Lecture 2 hours) May not be used for credit for the ECET program.

## 302L. Industrial Electricity Laboratory (1)

Prerequisite: PHYS 100B; corequisite: ET 302.
Overview of laboratory techniques in electrical engineering technology and applications in the industry.
Letter grade only (A-F). (Laboratory 3 hours) May not be used for credit for the ECET program.

## 303. Fundamentals of Environmental Technology (3)

Prerequisites: CHEM 111A, MATH 120, PHYS 100A.
Fundamentals of the techniques and unit operations for pollution control of air, land, surface water and groundwater pollution, as well as design of conveyances for water and wastewater, with an emphasis on their application in an industrial setting. Includes fundamentals of hydrology and fluid flow in environmental engineering technology.
Letter grade only (A-F). (Lecture-Discussion 3 hours)
304. Applied Mechanics Strength of Materials (3)

Prerequisite: ET 204.
Analysis of strength and ridigity of structural members in resisting applied forces, stress, strain, shear, moment, deflections, combined stresses, connections, and moment distribution.
Letter grade only (A-F). (Lecture-Discussion 3 hours)

## 307. Industrial Safety (2)

Prerequisite: Junior Standing.
Survey of industrial safety administration, engineering and management. Emphasis is placed on the role of the first line supervisor in establishing and maintaining a safe, healthful work environment for employees. Introduction to supporting computer resources used in the safety field.
Letter grade only (A-F). (Lecture-Discussion 2 hours)
309. Industrial Communications and Leadership (3) Prerequisites: ET 205, 205L,
English Composition. Principles, theories of industrial communications and management for engineering technology. Management functions of planning, organizing, motivating, leading, controlling \& staffing in technical environment. Intro decision support models. Written/oral technical information; communication forms \& procedures of industry, with computer applications.
(Lecture-Discussion, 3 hours) Letter grade only (A-F).

## 311. Quality Engineering Technology (3)

Prerequisites: ET 202, 202L,
Junior standing. Quality engineering technology principles and practices in industry, including management concepts, inspection practices, costs of quality and testing.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 312. Statistical Quality Control (3)

Prerequisite: ET 311.
Statistical process control; including use of statistical methods for analysis and improvement of product quality, control charts, linear correlation; sampling procedures, stratification, cause and effect analysis, process capability and introduction to design of experiments.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
313. Quality Assurance, Inspection Measurement and Testing (2)
Corequisite: ET 313L.
Theory and application of inspection procedures, instrument calibration, precision measurements including theory and application of non-destructive testing of materials for quality control.
Letter grade only (A-F).

## 313L. Quality Assurance, Inspection Measurement and Testing Laboratory (1)

Corequisite: ET 313.
Laboratory experiments; instrument calibration including standards and precision measurements including the use of non destructive test equipment for quality control.
(Laboratory 3 hours) Letter grade only (A-F)

## 319. Environmental Regulations and Compliance (3)

Analysis of federal and local administration of environmental laws, including the National Environmental Policy Act of 1969 and litigation of that act in the courts. Special attention paid to California and comparison of the environmental regulation policies of California. Case studies of legislation and political conflict in the environmental issues, and regulatory compliance.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 320. Software Quality Assurance (2)

Prerequisite: ET 205, 205L.
Theory and practices of software Quality Assurance. Course emphasizes Government specifications such as DOD-STD-2167 and DOD-STD-2168.
(Lecture-Discussion 2 hours) Letter grade only (A-F).
329. Environmental Study of Groundwater and Soils (2) Corequisite: ET 329L.
Detection, analysis and control of groundwater/soil contamination involving the regulatory hierarchy, distribution network and subsurface formations. Basic tools and procedures utilized in compliance operations.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

## 329L. Environmental Study of Groundwater and Soils Laboratory (1)

Corequisite: ET 329.
Laboratory exercises in the techniques of detection, analysis and control of groundwater/soil contamination. Rules of compliance set by regulatory hierarchy, distribution network and subsurface formations.
(Laboratory 3 hours) Letter grade only (A-F).

## 331. Environmental Auditing and Reporting (3)

Concepts, methods/techniques of performing environmental operational audits. Duties and responsibilities of regulatory auditor within State \& Federal hierarchy. State \& Federal compliance forms and procedures in industrial manufacturing processes required by regulatory agencies. Written/oral transmission and interpretation of compliance information \& related resource networks.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
333. Solid Waste Technology (2)

Corequisite: ET 333L.
Survey of regulated hazardous and non- hazardous solid waste generated by common industrial processes. Topics include waste generation, storage, collection, transfer, transport, processing and recovery. Consideration of system performance, legislation, regulations and environmental impact.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

## 333L. Solid Waste Technology Laboratory (1)

Corequisite: ET 333.
Techniques of identification, measurement and assessment of solid waste. Focus on regulated hazardous solid waste from common industrial processes. Topics include waste generation, storage, collection, transfer, transport, processing and recovery. Consideration of system performance, legislation, regulations and environmental impact.
(Laboratory 3 hours) Letter grade only (A-F).
335. Engineering Materials and Processes I (3)

Corequisite: ET 335L.
Examination of engineering materials and manufacturing processes including the study of: Phase diagrams; heat treatment; metal casting processes; welding and soldering; corrosion, powder metallurgy, electronic fabrication; tribology, friction, wear, lubrication; surface treatment, coating and cleaning.
(Lecture - Discussion 3 hours) Letter grade only (A-F).
335L. Engineering Materials Processes I Laboratory (1) Corequisite: ET 335.
Laboratory exercises in engineering materials and manufacturing processes including the study of: Phase diagram; heat treatment; casting; metallography and electronic manufacturing processes.
(Laboratory 3 hours) Letter grade only (A-F).
341. Solid State Electronics II (3)

Prerequisites: ENGR 203, 203L, ET 260, 260L, corequisite: ET 341L.
Miller's Theorem, integrated circuits, feedback, operational amplifiers, Fourier series, distortion, modulation, phase-locked loops, linear and non-linear circuits, and breadboarding.
(Lec-Discussion 3 hrs) Letter grade only (A-F).

## 341L. Solid State Electronics II Laboratory (1)

Prerequisites: ENGR 203, 203L, ET 260, 260L, corequisite: ET 341. Laboratory exercises in design and measurement of various circuits using operational amplifiers, comparators, regulators, silicon controlled rectifiers, frequency mixers and phase-locked loops.
(Lab 3 hours) Letter grade only (A-F).
350. Motors and Generators (2)

Prerequisites: ET 252, 252L; corequisite: ET 350L.
Study of electric rotating machinery, its theories, principles, design and applications in automation industries.
(Lecture-Problems 1 hour) Letter grade only (A-F).
350L. Motors and Generators Laboratory (1)
Prerequisite: ET 252 252L; corequisite: ET 350.
Laboratory exercises in applications and design of rotating machines. Topics covered are DC machines, synchronous machines, servomotor, step motor, and control circuits.
(Laboratory 3 hours) Letter grade only (A-F).

## 360. Control Instrumention (2)

Prerequisites: ET 260, 260L; corequisite: ET 360L.
Application and basic design of analog and digital control instrumentation for industrial processes. Physical and electrical properties of thermal, mechanical and optical transducers with associated signal conditioning.
(Lecture-Problems 2 hours) Letter grade only (A-F).
360L. Control Instrumentation Laboratory (1)
Prerequisites: ET 260, 260L; corequisite: ET 360.
Laboratory exercises in developing and measuring various control systems utilizing operational amplifiers, transducers, thermocouples, bridges, and various pressure devices.
(Laboratory 3 hours) Letter grade only (A-F).
363. Kinematics of Mechanisms (3)

Prerequisites: ET 170, 304.
Mathematical and graphical approaches to analyze the motion of mechanisms, for further machine development, through studies of displacement, velocity and acceleration of mechanical elements.
(Lecture-Discussion 2 hours, Activity 2 hours) Letter grade only (AF).

## 365. Fluid Power and Control (2)

Prerequisites: PHYS 100A, ET 302, 302L; corequisite: ET 365L.
Fundamentals and application of hydraulic, pneumatic and vacuum power as used in current manufacturing plants.
(Lecture-Discussion 2 hours) Letter grade only (A-F).
365L. Fluid Power and Control Laboratory (1)
Prerequisites: PHYS 100A, ET 302, 302L; corequisite: ET 365.
Demonstration and operation of fluid power systems. Design and selection of components for specific applications. Computer data acquisition and analysis.
(Laboratory 3 hours) Letter grade only (A-F).

## 386. Introduction to Microprocessors (2)

Prerequisite: ET 286, 286L; corequisite: ET 386L.
Theory and concepts of programming, hardware configuration, and functional capabilities of microcomputer systems including peripheral devices.
(Lecture-Problems 2 hours) Letter grade only (A-F).

## 386L. Introduction to Microprocessors Laboratory (1)

Prerequisites: ET 286, 286L; corequisite: ET 386.
Laboratory exercises in programming microcomputers. Topics included are number systems, microcomputer structure, mnemonic, binary code, peripheral devices operations, stand alone operations, and system operations.
(Laboratory 3 hours) Letter grade only (A-F).

## 387. Robot Programming and Mechatronics (2)

Prerequisites: ET 205, 205L; corequisite: ET 387L.
Basic concepts of robot manipulators, robot kinematics, robot programming languages. Applications of industrial robots, machine vision systems. Basic concepts of mechatronic systems: combine hardware, software, interface, and system integration to make an intelligent system. Sensors and actuators for robotics and mechatronic systems.
(Lecture-Problems 2 hours) Letter grade only (A-F).

## 387L. Robot Programming and Mechatronics Laboratory (1)

Prerequisites: ET 205, 205L; corequisite: ET 387.
Laboratory exercises in industrial and educational robot operation and applications. Laboratory exercises on mechatronic systems. Robot systems and their computer language instructions will be used. The experiments include teach pendant programming, high level language programming, workcell applications, continuous path programming.
Letter grade only (A-F).

## 388. Technical Applications Using Programming

 Languages (2)Prerequisites: ET 286, 286L; corequisite: ET 388L.
Techniques for design and development of industrial programs that includes composite program design, module coupling, module strength, program testing, top-down structured programming concepts and tools, object oriented programming, and memory management. These concepts are investigated and examined for use in solving complex problems in engineering technology. (Lecture-problems 2 hours)

## 388L. Technical Applications Using Programming Languages Laboratory (1) <br> Prerequisites: ET 286, 286L; corequisite: ET 388.

Lab experience in techniques for design/development of industrial programs such as composite program design, module coupling, module strength, program testing, top-down structured programming concepts/tools, object oriented programming, \& memory management. These concepts are investigated and examined for use in solving complex problems in engineering technology.
(Lab 3 hours)

## 390. Applied Computer-Aided Design and Manufacturing (2)

Prerequisites: ET 170, 205, 205L; corequisite: ET 390L.
Roll of the computers in the manufacturing process, application of CAD/CAM systems, hardware and software components for automation, part programming for manufacturing, computer controlled manufacturing equipment, simulation, programming the factory.
(Lecture - Discussion 2 hours) Letter grade only (A-F).

## 390L. Applied Computer-Aided Design and

 Manufacturing Laboratory (1)Prerequisites: ET 170, 205, 205L; corequisite: ET 390.
Use of microcomputer based hardware and software to solve 2D and 3D modeling problems. Computer automation software packages. Also includes part programming and CAD/CAM data exchange exercises.
(Laboratory 3 hours) Letter grade only (A-F).
*400. Industrial Wastewater Treatment (2)
Prerequisites: CHEM 111A, BIOL 211A, ET 303, 319; corequisite: ET 400L.
Fundamentals of the characterization, minimization, treatment selection and design of industrial wastewater treatment systems. (Lecture-Discussion 2 hours)
*400L. Industrial Wastewater Treatment Laboratory (1)
Prerequisites: CHEM 111A, BIOL 211A, ET 303, 319; corequisite: ET 400.
Laboratory exploration of fundamentals of the characterization, selection and operation of industrial wastewater treatment systems.
(Laboratory 3 hours) Letter grade only (A-F).

## 407. Environmental Systems Safety and Emergency Management (3)

Prerequisites: ET 303, 311, 319.
Emergency management and contingency planning in accordance with U.S. environmental regulations and international standards. Emphasis on training, preparedness, response and recovery. Concepts, methods and techniques of performing environmental operational systems audits in accordance with the International Standards Organization (ISO).
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 409. Senior Problems in ET (1-3)

Prerequisites: Senior standing in ET, consent of instructor.
Advanced work of a technical nature within an area of
specialization on an experimental or research basis.
Letter grade only (A-F).
B. Electronics Technology
C. Manufacturing Technology
D. Quality Assurance
E. Computer Technology
F. Environmental Technology

## 410. Cost Engineering and Analysis (3)

Prerequisites: Economics course, Junior Standing. Introduction to the concepts of capital and operations budgets, capital acquisitions, economic evaluations of capital alternatives and factors of the time-value of money in industrial operations and construction industries.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 418. Production Methods and Process Improvement (3)

 Prerequisite: ET 410.Simplification and improvement of manufacturing operations through the use of production analysis tools for optimum production economy. Also included is the investigation of production automation applications for improving manufacturing process, quality and productivity.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
419. Design of Experiments (3)

Prerequisite: ET 312.
Advanced statistical analysis applied to quality functions. Comparative and single factor experiments. Factorial designs and multiple regression.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
420. Reliability and Maintainability (3)

Prerequisite: ET 419.
Principles and Practices of reliability; reliability analysis and design; testing for reliability. Maintainability concepts.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
435. Engineering Materials and Processes II (3)

Prerequisites: ET 335, 335L. Corequisite: ET 435L.
Application of engineering materials and manufacturing processes including: rolling; forging; extrusion and drawing; sheet-metal forming; manufacturing of plastics and composites; material removal processes and rapid prototyping.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 435L. Engineering Materials and Processes II Laboratory

 (1)Prerequisites: ET 335, 335L. Corequisite: ET 435.
Continuation of ET 335L. Laboratory exercises in: welding processes; machining processes; metal forming; manufacturing of composite materials.
(Laboratory 3 hours) Letter grade only (A-F).
441. Theory of Electronic Control (3)

Prerequisites: ET 360, 360L.
Procedures for the design, preparation, and evaluation of electronic systems that control manufacturing and production processes, simulation analysis for sensing, programming, and actuating operations.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 442. Computer Circuits (2)

Prerequisites: ET 255, 255L; corequisite ET 442L.
Introduction to digital hardware design. Combinational/sequential logic circuits and systems and application of integrated circuits to logic controls. Programmable logic devices, Field-programmable gate array, Circuit synthesis, and analysis.
(Lecture-Problems 2 hours) Letter grade only (A-F).

## 442L. Computer Circuits Laboratory (1)

Prerequisites: ET 255, 255L; corequisite ET 442.
Laboratory study of digital computer circuits design and
implementation. Standard designing and trouble-shooting procedures will be discussed. Topics covered are multivibrator, register, counter, decoder, arithmetic circuits, and memory.
(Laboratory 3 hours) Letter grade only (A-F).
444. Telecommunications (3)

Prerequisites: ET 360, 360L.
National Communication Network, decibels, transmission units, transmission lines, characteristic impedance, loading systems, lattice networks, PCM, Nyquist Criterion, Bessel functions, coaxial cable, fiber optics, microwave, impedance matching, and Smith chart.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 445. Microelectronics (1)

Prerequisites: ET 350, 350L; corequisite: ET 445L.
Design, processing and applications of monolithic and hybrid microcircuits for analog and digital systems.
(Lecture 1 hour) Letter grade only (A-F).
445L. Microelectronics Laboratory (1)
Prerequisites: ET 350, 350L; corequisite: ET 445.
Laboratory exercises in the processing of thick-film and thin-film materials, ultrasonic and thermocompression wire bonding and laser resistive trimming. Practical application and equipment utilization is emphasized.
(Laboratory 3 hours) Letter grade only (A-F).
447. Industrial Applications of Electronic Circuits (2)

Prerequisites: ET 341, 341L; corequisite: ET 447L.
An in-depth study of the applications of important electronic circuit concepts in industry. Analysis of circuits and how they work in industrial applications. Techniques for troubleshooting of design circuits. Biomedical electronic circuits which have industrial applications are emphasized.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

## 447L. Industrial Applications of Electronic Circuits Laboratory (1)

Prerequisites: ET 341, 341L; corequisite: ET 447.
Laboratory exercises include constructing circuits which have important applications in industry. Troubleshooting methodology emphaiszed throughout. Assignments focus on biomedical electronic circuits which have industrial applications.
(Laboratory 3 hours) Letter grade only (A-F).

## *449. Environmental Air Quality (2)

Corequisite: ET 449L.
Planning and evaluation of systems for management of air quality. Consideration of system performance, legislation regulations, environmental impacts and socioeconomic factors. Selected case studies.
(Lecture-Discussion 2 hrs) Letter grade only (A-F).
*449L. Environmental Air Quality Laboratory (1) Corequisite: ET 449.
Techniques of measurement and assessment of air quality. Focus on measurement of regulated air quality health hazards.
(Laboratory 3 hours) Letter grade only (A-F).

## 460. Electronics Project Design and Development (2)

Prerequisites: ET 341, 341L and senior standing; Co-requisite: ET 460L.
Involves individual or small group projects in applied electronics, with emphasis on laboratory practice or hardware/software solution to practical problems. Will emulate the design and development process common to electronic and electrical products. Written reports and oral presentations are required.
This capstone course is open to Electronics Technology majors only. Letter grade only (A-F). (Lecture-Discussion 2 hours)

## 460L. Electronics Project Design and Development Laboratory (1)

Prerequisites: 341, 341L and senior standing; Co-requisite: ET 460.
Involves laboratory exercises in electronics project design and development. Topics covered include: product planning, implementation planning, proposal and approvals, prototyping, system integration, packaging, overall testing, and reporting. Concludes with a formal demonstration, an oral presentation on the finished product and a written report on the final design.
Letter grade only (A-F). (Laboratory 3 hours)
461. Management of Manufacturing Operations (3) Prerequisite: ET 418.
Application of analytical planning and control techniques to the resources of industry including the physical plant, equipment, personnel, inventories and supplies use in the production of products and services.
(Lecture-Discussion 3 hrs ) Letter grade only (A-F).

## 476. Environmental Impact (3)

Prerequisite: BIOL 306.
Required components of environmental impact reports and assessments and the processes involved in their preparation. Special emphasis is placed on the biological portions of EIRs and impact on flora and fauna.
(Lecture-Discussion 3 hours) Letter grade only (A-F).
*485. Environmental Assessment (3)
Definition and study of problems related to specific issues of environmental impact, mitigating solutions, costs, benefits and consequences.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

## 486. Data Structures (2)

Prerequisites: ET 388, 388L; corequisite: ET 486L.
Data structures and applications. Choice and implementation of appropriate data structures for applications. Treatment of arrays, lists, stacks, queues, lined lists, trees, and assorted algorithms. Introduction to search and sorting. File organization techniques.
(Lecture - Problems 2 hours) Letter grade only (A-F).
486L. Data Structures Laboratory (1)
Prerequisites: ET 388, 388L; corequisite: ET 486.
Laboratory exercises in data structures and applications. A recursive programming language will be used.
(Laboratory 3 hours) Letter grade only (A-F).
487. Introduction to Data Communications and Networking (2)

Prerequisites: ET 286, 286L, 386, 386L or equivalents; corequisite: ET 487L.
Introduction to data communications fundamentals, peer-to-peer and client/server network models. Hardware and software technology, Protocols, networks, relational database technology, and security. Example applications, tools and development environments, Groupware, middleware. A design project and class presentation is required.
(Lecture-discussion 2 hours) Letter grade only (A-F).
487L. Introduction to Data Communications and Networking Laboratory (1)
Prerequisites: ET 286, 286L, 386, 386L or equivalents; corequisite: ET 487.

Laboratory and programming exercises introducing the students to data communications and Networking technology. Protocols, networks, relational database technology, and security. Applications using software/hardware tools and development environments.
(Laboratory 3 hours) Letter grade only (A-F).

## 488. Microcomputer Systems (2)

Prerequisites: ET 386, 386L; corequisite: ET 488L.
Study of available microprocessors and microcomputer systems. Topics cover microcomputer architecture, software structure, assembly language, central processing unit, input/output, memory manipulation, and interfacing applications in Engineering Technology.
(Lecture-problems 2 hours) Letter grade only (A-F).
488L. Microcomputer Systems Laboratory (1)
Prerequisites: ET 386, 386L; corequisite: ET 488.
Laboratory experience in microcomputer architecture, assembly language programming, and interfacing applications in Engineering Technology. Topics covered are central processing unit function, memory organization, and input/output operation. Available microcomputer systems will be used. Applications in Engineering Technology.
(Laboratory 3 hours) Letter grade only (A-F).

## 489. Computer Interfacing (2)

Prerequisites: ET 442, 442L, 488, 488L; corequisite: ET 489L.
Study of theories and techniques that are used in peripheral control and interfacing. Topics covered are serial interfacing, Parallel interfacing, timing, handshaking, A/D converters, buffering, and UARTs.
(Lecture-Discussion 2 hours) Letter grade only (A-F).
489L. Computer Interfacing Laboratory (1)
Prerequisites: ET 442, 442L, 488, 488L; corequisite: ET 489.
Laboratory exercises in computer interfacing applications and design. Available computer system and its assembly language instructions will be used.
(Laboratory 3 hours) Letter grade only (A-F).
491. Embedded Processors and Systems (2)

Prerequisites: ET 489, 489L; Corequisite: ET 491L.
Embedded microprocessors, embedded systems, development concepts, principles, and applications. Hardware/software tradeoffs, interfacing issues, memory sizing, timing, code and power optimization issues. Application requirements, platform selection, RISC vs. CISC issues, co-processors vs. ASIC's.
(Lecture-discussion 2 hours) Letter grade only (A-F).
491L. Embedded Processors and Systems Laboratory (1)
Prerequisites: ET 489, 489L; Corequisite: ET 491.
Laboratory exercises on embedded system development. Emphasis will be on application requirements, platform selection, interfacing, memory sizing, timing, code and power optimization. Use of development environments and evaluation boards.
(Laboratory 3 hours) Letter grade only (A-F).
492. Computer Controlled Industrial Systems (2)

Prerequisites: ET 286, 286L; corequisite: ET 492L.
Concepts of computer-based control of industrial systems and data acquisition. Signals and measurements, noise, resolution, signal conditioning. Software and hardware for data acquisition and control.
(Lecture - discussion, 2 hours) Letter grade only (A-F).

## 492L. Computer Controlled Industrial Systems Laboratory (1)

Prerequisites: ET 286, 286L; corequisite: ET 492.
Laboratory exercises on computer-based control of industrial systems and data acquisition. Software and hardware for data acquisition and control. Emphasis placed on object-oriented languages and creation of graphical user interfaces for data acquisition, display and control.
(Laboratory, 1 hour) Letter grade only (A-F).
494. Applied Systems Development Project (2)

Prerequisites: ET 386, 386L, 487, 487L; Corequisite: ET 494L. Systems development concepts, principles, and practices to a comprehensive systems development project. Hands-on approach is used to analyze, design and document a realistic system. Actual use of project management, interviewing, forms analysis, structured methods, behavioral dynamics, walk-throughs, report writing, and presentations.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

## 494L. Applied Systems Development Project Laboratory

 (1)Prerequisites: ET 386, 386L, 487, 487L; Corequisite: ET 494.
Laboratory exercises on applied system development. Emphasis will be on systems development concepts, principles, and practices to a comprehensive systems development project.
(Laboratory 3 hours) Letter grade only (A-F).
496. Advanced Quality Systems and Analysis (3)

Prerequisites: ET 419, 420.
Quality systems analysis and applications. In-depth case studies in strategic quality planning, organization/management, integrated product design, quality diagnostic techniques \& advanced statistical problem-solving, product reliability \& quality assurance. Comprehensive systems analysis team project covering and industry application using the continuous process improvement methods.
(Lec-problems 3 hours) Letter grade only (A-F).
497. Computer Network Technology (2)

Prerequisites: ET 487, 487L; Corequisite: ET 497L.
Hardware and software technology as it relates to computer networking. LAN, WAN environments and access methods, Ethernet, ATM, Bridges, routers, gateways and intelligent hubs. Networking protocols. Security, Load balancing, and the use of simulation tools in designing networks.
(Lecture-discussion 2 hours) Letter grade only (A-F).
497L. Computer Network Technology Laboratory (1)
Prerequisites: ET 487, 487L; Corequisite: ET 497.
Laboratory exercises using hardware and software technology related to computer networking. Internetworking laboratory, Ethernet, ATM, Bridges, routers, gateways, and intelligent hubs. Security, Load balancing, and the use of simulation tools.
(Laboratory 3 hours) Letter grade only (A-F).
498. Manufacturing Engineering Technology Capstone Project (3)
Group project involving analysis, design, tooling and production processes for product manufacture. Economic, market and capital requirements, manpower analysis. Written reports and oral presentations required.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

College of Liberal Arts

Department Chair<br>Eileen S. Klink<br>Department Office<br>McIntosh Humanities Bldg. (MHB), Rm. 419<br>Telephone<br>(562) 985-4223<br>FAX<br>(562) 985-2369<br>Faculty<br>Professors

Elyse M. Blankley, Stephen Cooper, Gene L. Dinielli, Elliot Fried (Emeritus), Robert M. Hertz, Eileen S. Klink, Beth Lau, Gerald I. Locklin (Emeritus), Alosi Moloi, David N. Samuelson (Emeritus), Ronald J. Strahl, Dianne L. Vipond, Charles H. Webb, Mark L. Wiley, Elizabeth V. Young, Rafael J. Zepeda

## Associate Professors

Timothy Caron, Brian H. Finney, Paul Gilmore, Suzanne A. Greenberg, George Hart, Wilhelmina Hotchkiss, Helen C. Hu, Lloyd E. Kermode, Susan Peck MacDonald, Sylvia P. Maxson, Joseph P. Potts, Frederick Wegener, Mark Williams

## Assistant Professors

Sarah J. Arroyo, Susan L. Carlile, Melissa J. Fiesta, W. Gary
Griswold, Britt A. Mize, Norbert E. Schürer, Nancy S. Sheley, Martine van Elk, Carol Zitzer-Comfort

Office Manager
Glenn Bach

For information about programs of study in the Department of English, the department office can refer students to one of the coordinating faculty advisors: Undergraduate, Graduate, MFA, English Education, Composition, Creative Writing, Literature, Technical and Professional Communication, and the American Language Program. Regular office hours for all English faculty are posted near the department office, and information sheets are available detailing which faculty members regularly advise for specific options. Students should establish a file folder in the department when they first appear for major advising. Unofficial transcripts from other institutions are needed to establish continuity, waive requirements, or substitute equivalent courses.

In the discipline of English, the department's teachinglearning emphasis is on developing and sustaining each student's own critical reasoning, imagination, and expressive skills. Just as literature broadens and deepens one's experience of life, the study and practice of language and writing sharpen and clarify one's thinking. Learning to see and to seek out expressive possibilities of language in fiction, drama, poetry, essays, and the mass media also adds dimension and meaning to the experiences of life.

The course of study for the undergraduate English major enlarges the literary background of students and prepares them for graduate study, teaching, or careers in business, law, and other professions.

In all options for the major, study of a foreign language is recommended. Ideally, acquaintance with a foreign language should begin before university study, but a student can also gain a great deal by beginning language study at the university level and continuing it through upperdivision courses. Because most advanced degrees require knowledge of at least one foreign language, students aiming at such degrees should definitely include language study in their undergraduate programs.

For English majors who want to study medieval and Renaissance political and social history, art, literature, philosophy, religion, music, and drama, the Center for Medieval and Renaissance Studies offers two programs. Undergraduate students can pursue a Certificate or a minor in Medieval and Renaissance Studies. Graduate students can pursue a Certificate in Medieval and Renaissance Studies. Interested students should turn to the catalog section entitled "Medieval and Renaissance Studies" and/or contact the program directors in MHB 512.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in English

While planning a program of courses for the major in English, a student should consider the opportunities and limitations of the different options detailed below. For each option, official Program Planners are available in the department office. They require faculty consultation and approval for a graduation audit, but students should also consult department faculty for advising when choosing a program in English and regularly after making that choice.

For all options, the major in English consists of at least 41 units. Because ENGL 100 satisfies a University general education requirement, it is not part of any English option. Some options permit or require courses from other departments; if approved by a faculty advisor, options may also include other courses outside English. Because some courses meet requirements in several options, many students can change options with no great loss of credit toward the required total.

In rare instances, a student may accelerate completion of the major in English by taking advantage of the department's credit by examination policy. Certain courses may also be waived or substituted for under certain circumstances. Consult a department advisor for the option concerned.

In addition to the degree requirements for the Bachelor of Arts in English, English majors must meet the following requirements for University graduation:

1. Each lower division course counted towards the English major must be completed with a grade of "C" or better. A
course in which a grade lower than a " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite.
2. English 380, required of all English majors, must be completed with a grade of "C" or better. If a grade lower than a " $C$ " is received, English 380 must be retaken and successfully completed with a grade of "C" or better prior to enrolling in any course for which it is a prerequisite.

## Option in Creative Writing (code ENGLBA02) (120 units)

The Creative Writing option is designed for students who wish to write, as well as study, fiction, poetry, plays, or media scripts. Exposure to traditional and recent literature is also of significant value for anyone seeking to master the forms and conventions of writing creatively for the literary marketplace. (Students seeking a Secondary Credential should complete the Creative Writing emphasis of the English Education Option.)

This option consists of 45 units, 31 of which must be taken in the upper division, including the following:

Lower Division: ENGL 184; 204, 205, or 206; 250 A, B.
Upper Division: ENGL 380; nine units in creative writing chosen from ENGL 404, 405, 406, 407, 408, 499, FEA 404, 408, THEA 380, 498F; three classes chosen from the following classes in recent literature, literary genres, and literary criticism: ENGL 385, 386, 459, 466, 467A, B, 469, 474, 475, 476A,B, 477A,B, 478, 479; electives to make up a total of 45 units chosen from the classes listed above and/or any upper-division English courses.

## Option in English Education (code ENGLBA06) (120 units)

English Education emphases should not be confused with B.A. options or majors in English or other departments, which have significantly different requirements. The English Education option is designed for prospective secondary English teachers and satisfies the state-mandated requirement in subject matter competence for the Single Subject Teaching credential. The option combines a 39-unit core with a specified emphasis in one of nine areas. All nine areas of emphasis require an additional 12 units of breadth and perspective beyond the core as indicated below.

Students must complete the following core courses for all emphases: ENGL 310, 320, 363, 375, 380, 410, 482, LING 339; ENGL 250A or 250B; ENGL 270A or 270B; one course from the following in Comparative World Literature: CWL 100, 124, 232, 320I, 346, 404, 452/552 or CLSC101. General Education courses that will meet California Commission for Teacher Credentialing Requirements are: (select three units from) THEA 113, 122, or 324I, and (select three units from) COMM 130 or 335.

In addition to meeting the subject matter competence requirement for the Preliminary Single Subject Credential in English, prospective English teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as post-baccalaureate student. Refer
to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's English Education Advisor early to plan their program.

## Black Studies Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): B/ST 140, 415; select three units from B/ST 343A, 343B; select three units from B/ST 180, 205, 240, 340, 346.

## Communication Studies Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): COMM 355; select nine units from COMM 309, 331, 335, 352, 358, 411.

## Creative Writing Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): select six units from ENGL 404, 405, 406, 407; select six units from ENGL 385, 386, 459, 463, 467A, 476B, 474, 475, 476, 477A, 477B, 478.

## Journalism Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): JOUR 120, 305, 311; select three units from 430, 431.

## Language and Linguistics Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): select three units from LING 420, 421, 433; select three units from LING 485 (also listed as EDP 485), LING 486; select three units from LING 425 (also listed as ANTH 421), LING 472; select three units from ENGL 435, LING 460.

## Literacy and Composition Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): ENGL 435, 436; select two courses from ENGL 300, 309, 317, 404, 405, 406, 407, 417, 418, 496, 497, LING 460.

## Literature Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): select three units from ENGL 450 series; select three units from ENGL 470 series; select three units from ENGL 318I, 385, 386, 398;
select three units from any course in 440 series, any course in 450 series different from above, any course in 460 series different from above, any course in 470 series different from above, any course in 480 series other than ENGL 482, 498.

## Theatre Arts Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): THEA 101, 114A, 321, 374.

## World Literature Emphasis

Students are required to complete the core of thirty-nine (39) units and twelve (12) units to provide breadth and perspective.

Breadth and Perspective (12 units): select three units from CWL 101, 232, 452, CLSC 101; select three units from CWL 330A, 330B; select three units from CWL 103, 104, 334, 336, 402, 403, 406, 440; select three units from CWL 414I, 422I, 431, 432, 437, 438, 421I; CLSC 311I, 312I.

## Option in Literature (code ENGLBA01) (120 units)

The Literature option is designed for students who desire a thorough grounding in English and American literature and is particularly recommended for those planning on graduate study in English. (Students seeking a Secondary Credential should complete the Literature emphasis of the English Education option.)

This option consists of 46 units, 27 of which must be taken in the upper division, including the following:

Lower Division: ENGL 184, 250A, 250B, 270A, 270B.
Upper Division: ENGL 380; 363; either two courses from the 450 series or one course from the 450 series and one course from the 460 series (excluding 461 and 469)—one of these two courses must be in English literature before 1900; one course from the 470 series (excluding 479); one senior seminar (469, 479, 489); electives to make up a total of 46 units.

## Option in Rhetoric and Composition (code ENGLBA04) (120 units)

The Rhetoric and Composition option is designed for students who desire to write for multiple readers and to analyze and interpret texts. This option prepares students for teaching on virtually all levels, for graduate study in English, and for professions that require intensive writing and communication skills. (Students seeking a Secondary Credential should complete the Literacy and Composition emphasis of the English Education option.)

This option consists of 45 units, 32 of which must be upper division, including the following:

Lower Division: 184 or equivalent; select two courses from ENGL 250A, 250B, 270A, and 270B.

Upper Division: ENGL 380; select two courses from ENGL 300, 317, 410, and 435; select seven courses from ENGL 310, 320, 337, 363, 404, 411, 416, 417, 418, 419, 423, 426, 436, 437, 488, and 497; select upper-division English course electives to reach a total of 45 units. Note: students are strongly encouraged to take ENGL 102 or an English-department equivalent at a transfer school for this option.

## Option with Special Emphasis (code ENGLBA05) ( 120 units)

Some students wishing to major in English have special interests or career objectives so different from those for which the other options are designed that another pattern of courses would better serve their personal educational needs. For those students, the Special Emphasis option offers an opportunity to pursue individually designed 41-unit programs of study. Student programs may center on technical writing, for example, or other writing goals; they may focus on American or English literature or literature in a particular genre, a particular historical period, or a particular theme.

A Special Emphasis program may include courses outside the Department of English closely related to a student's focus in English studies. At least 21 units must be earned in the Department of English and at least 21 units of the program must be upper division. For degrees with more than four courses in any single other department, students should consider a Special Major in the Interdisciplinary Studies Program.

Students wishing to take the Special Emphasis option should prepare a detailed program proposal early in their college careers. Such programs will be recognized only if planned in consultation with a faculty advisor in the Department of English, approved in writing by the advisor, given signed approval by the Department Chair, and carried out under the advisor's continuing supervision. Students must complete at least 15 upper-division units applicable to their Special Emphasis program after it has been officially approved.

The only specific course requirements and limitations are the following: ENGL 184, Composition and Literature (3 units); ENGL 380, Approaches to English Studies (4 units).

Electives in English and related fields are needed to make up a total of 41 units. These electives may not include ENGL 100 or 101.

## Minor in English

## Creative Writing (code ENGLUM01)

The minor in English (Creative Writing) requires a minimum of 21 units which must include the following: ENGL 184; three units from ENGL 204, 205 or 206, three units from ENGL 404, 405 or 406; three units from ENGL 385 or 386; and eight units of electives from ENGL 359, 404, 405, 406, 407, 432, 459, 466, 467A, B, 474, 475, 476, 477A,B, 499. (Note: ENGL 404, 405, 406 and 407 may be repeated for credit to a maximum of six units by consent of instructor.

## Literature (code ENGLUM03)

The Literature minor in English requires a minimum of 20 units and must include: ENGL 184; eight units from ENGL 250A, 250B, 270A, 270B; and nine elective units from upperdivision literature classes in the English department (including at least one class at the 400 level).

## Rhetoric and Composition (code ENGLUM02)

The Rhetoric and Composition minor in English requires a minimum of 20 units and must include: ENGL 310, 497, LING 420 , and 421. Also recommended are three units from ENGL (or LING) 423 or 426.

## Special Emphasis (code ENGLUMO4)

The Special Emphasis minor in English requires a minimum of 21 units in a program developed, approved, and supervised in the same manner as the Special Emphasis Option. ENGL 184 is required of all students, with the rest of the program constructed in consultation with a faculty advisor. At least 9 upper-division units must be taken after program approval, and at least 11 units must be earned in the Department of English.

## Certificate in Teaching English as a Second Language (code ENGLCT02)

The Certificate Program in Teaching English as a Second Language is conducted by the Linguistics Department faculty. Please refer to the Linguistics sections of this Catalog.

## Certificate in Technical and Professional Communication (code ENGLCT01)

The Department of English offers a Certificate in Technical and Professional Communication to students interested in careers in writing and editing. Application forms and advising materials may be obtained from the department office.

## Prerequisites

1. Formal consultation with a faculty advisor in the Technical and Professional Communication (TPC) Certificate program;
2. Submission of an application to enter the program, supported by transcripts;
3. Upper division or post-baccalaureate standing at CSULB with a grade point average of at least 2.75 overall;
4. Admission to a degree program in this university or possession of a degree from an accredited university;
5. Successful completion of ENGL 317, Technical Writing, with a letter grade of "C" or higher.

## General Requirements

1. A baccalaureate degree, which may be taken concurrently with the Certificate in Technical and Professional Communication;
2. A minimum of 24 units in courses approved for the Certificate Program at this University, preferably completed within 10 years of the first credit granted toward the Certificate (consult an advisor concerning any transfer or extension credit that may be allowable);
3. A letter grade of " C " or higher in every course in the Certificate program (a grade of "CR" is acceptable in no more than one course);
4. Completion of a program of courses in Areas I through IV, developed in consultation with an advisor in the Technical and Professional Communication Certificate program, and approved by the Program Director and the Dean of the College of Liberal Arts (or the Dean's designee);
5. Demonstrations (in or outside the program of courses) of competence in the use of computers and graphic media;
6. Development of a portfolio of reports, written and edited by the student during enrollment in the Certificate program, for review and approval by faculty in the Technical and Professional Communication Certificate program (required for a grade in ENGL 492A/B, Area IV).

## Course Requirements

For each of the following courses, TPC Certificate students have been granted enrollment rights equal to those of students majoring in the Department offering the course.
Substitutions are possible, especially in more advanced courses, with approval by the Program Director.
Area I: Technical and Professional Writing (9 units): ENGL
417, 418, and one from the following courses: ART 307,
309; CRIM 302; ENGL 419; GEOL 420; IS 301.
Area II: Language Studies (4 units): ENGL 416, 320.
Area III: Electives chosen from the following (minimum 8 units):
Analytical Reading: COMM 301; ENGL 380, 423, 488; GEOG 380; HIST 400/PHYS 4001; NSCI 375I; PHIL 381;
Business/Professional Skills: ACCT 201; COMM 334, 335, 344; FIN 220; JOUR 370; MKTG 300, 330;
Computer Applications: CECS 174; JOUR 331; MGMT 426; NSCI 200; SOC 200;
Creative Writing: ENGL 404, 405, 406, 407; FEA 304, 404; THEA 380;
Intercultural Communication: ANTH 412I, 413; COMM 330; MKTG 480;
Visual Communication: ET 170; GEOG 200; JOUR 305; MAE 172;
Area IV: Practical Writing (3 units): ENGL 491 (1 or more units), 492A or B (2 or more units). No grade in ENGL 492 will be assigned without an approved portfolio, as indicated in Paragraph 6, General Requirements.

## GRADUATE PROGRAMS

The Department of English offers two graduate degrees, an M.A. in English and an MFA in Creative Writing. Teaching assistantships are available in both. Application information may be obtained from the Department office, (562) 985-4223.

## Master of Arts in English (code ENGLMA01)

The Department of English offers graduate study leading to the Master of Arts degree. The candidate must satisfy the general requirements stated in this Catalog as well as the specific departmental requirements stated here and, more fully, in the Master of Arts brochure issued by the department (copies of which are available upon request). Applicants must submit to the University's Office of Admissions and Records a graduate application (available at that office or on-line). Applicants must also submit two sets of transcripts from all colleges and universities attended. One set must be submitted to the Office of Enrollment Services and another set must be sent directly to the Department of English. The deadline for submitting an application for Fall semester is May 1; the deadline to apply for Spring is October 15.

## Prerequisites

An applicant may be admitted to the M.A. program in English only after satisfying University requirements for admission and the following prerequisites to this degree:

1. A Bachelor of Arts degree in English from an accredited institution or a bachelor's degree from an accredited institution with 24 units of upper-division English courses that offer a broad coverage of English and American literature.
Any deficiencies will be determined by the Department Graduate Advisor in consultation with the Graduate Studies Committee. Courses used to remove course or unit deficiencies may not be included in the M.A. program.
2. A 3.2 GPA in upper-division English courses.
3. All applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must receive a minimum score of 600 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 250 or above; applicants taking the Internet-Based Test of English as a Foreign Language must present a score of 100 or above).

## After Admission to Program

Students must be formally admitted to the program before they can enroll in ENGL 696, which is pre-requisite or co-requisite to all other 600-level courses.

## Advancement to Candidacy

1. The student must satisfy the general requirements of the University, including fulfilling the Graduation Writing Assessment Requirement (GWAR).
2. The student's M.A. program must be approved by a faculty graduate advisor, the Department Graduate Advisor, and the Department Chair before submission to the Associate Dean of Liberal Arts.
3. Advancement to candidacy may take place upon completion of six units in the M.A. program. Advancement to candidacy must take place no later than the semester preceding the awarding of the degree.

## Requirements

1. A minimum of 30 units of approved upper-division (indicated in the Catalog with an asterisk*) and graduate courses including 24 units in English;
2. A minimum of 20 units in the 600 series in English at this University, including ENGL 696, which is to be completed before or concurrently with other 600-series courses. (A student will not be granted credit for 600-series courses unless admitted to the M.A. program);
3. A minimum of one seminar in the 600 series in English literature before 1800;
4. A foreign language requirement, which may be fulfilled in one of the following ways:
A. completing college course work in a foreign language equivalent to sophomore proficiency (normally 201B at this University) with " C " or better;
B. completing college course work in a foreign language equivalent to freshman proficiency (normally 101B at this University) with "C" or better and completing either ENGL 550 or ENGL 551 with "B" or better;
C. passing a special examination or demonstrating native proficiency in any foreign language accepted by the Graduate Studies Committee;
5. Successful completion of a final comprehensive examination in a specified specialty area. (Students who fail the examination may retake it once only.) A thesis may be written in lieu of the examination;
6. Appropriate filing for Graduation Check and for Diploma.

Teaching assistantships are available in the Department of English. In addition, the Department's tutoring program, the Writer's Resource Lab, employs a number of graduate and undergraduate students each semester. Application for both of these programs may be obtained from the Department office at (562) 985-4223.

## Master of Fine Arts in Creative Writing (code ENGLMF01)

The Master of Fine Arts degree in Creative Writing is the recognized terminal degree which offers the minimum professional training deemed necessary by the major schools in the United States for university and college teaching and for positions in the publishing industry. It is also the degree most frequently held by professional writers. The Department of English at California State University, Long Beach is a fully accredited program that meets the standards of the State of California.

## Criteria for Admission to the Program

1. Students applying for admission to the MFA degree program generally have completed a bachelor's or master's degree in English from an accredited institution with a 3.2 GPA in upper-division English courses, meet university admission requirements, and submit evidence of creative ability in fiction or poetry (10 pages poetry, 2030 pages fiction). For each annual cycle, applications are due by February 15, when review will begin.
2. When an undergraduate degree has been completed in a program having different requirements from those of CSULB or in some field other than English, additional preparation may be required before the student can be considered for classified status in the degree program.
3. At the time of the student's conditional classification into the program, an examining diagnostic committee consisting of at least two instructors in the student's field of specialization and at least one other faculty member must approve and evaluate the student's work no later than the end of his/her first full year in residence and judge whether the student should continue in the program.
4. In order to obtain a full classified status, the student must obtain satisfactory evaluation from his/her committee at the end of the first full year in residence. Both the student's coursework and the student's portfolio will be evaluated.
The appeals procedure for unfavorable portfolio evaluation is as follows:
If the student feels that his/her work has been unfairly evaluated, that student has recourse any time to discuss the matter informally with the MFA Coordinator in order to resolve the issue. If the issue cannot be resolved on that basis, the following procedure shall be followed:
A. The student shall present a written appeal to the MFA Coordinator.
B. Within ten (10) working days of receipt of a written appeal by a student, the MFA Coordinator shall refer the appeal to an ad hoc committee consisting of three tenured creative writing faculty not involved with the issue.
C. The committee shall meet in formal sessions holding hearings at separate times for the student and for the faculty involved to gather information and evidence relevant to the issue.
D. After deliberation, the committee shall present its findings to the MFA Coordinator within thirty (30) working days from the origination of the committee. (Working days do not include periods of time between semesters.)
E. The MFA Coordinator shall inform the concerned student in writing of the committee's decision.
5. Advancement to candidacy
A. Attain fully classified status.
B. Remove all undergraduate deficiencies as determined by the graduate advisor, the department chair, and the dean of graduate studies.
C. Fulfill the GWAR
D. Submit a program of courses for approval by the student's faculty advisor.
6. Up to 24 units of credit from a Master of Arts program in Creative Writing may be acceptable after review and approval by the faculty evaluation committee.
7. Requirements for the Master of Fine Arts in Creative Writing
A. The MFA degree is a sixty-unit degree normally requiring full-time residency. Course requirements are arranged according to the following structure.
Core Courses: ( 39 units, to be chosen on the basis of consultation with a faculty advisor, to include): ENGL 505A,B or 506A,B; 590A,B; 605A,B or 606A,B; 584; 590; 598; 696; 698.
Elective Courses: (21 units, to be chosen on the basis of consultation with a faculty advisor, to include): ENGL $523,526,535,537,550,551,552,553,554,555,556$, $558,559,562,567 \mathrm{~A}, 567 \mathrm{~B}, 568,574,575,576,577 \mathrm{~A}$, 577B, 578, 583, 652, 653, 655, 656, 657, 659, 672, 673, 674, 681; FEA 404; *THEA 380, *480.

* may be counted for graduate credit
B. Both fiction and poetry specializations share a common core of courses which offer study in literary history, theory, and research. The remainder of the courses offer students the opportunity to develop additional skills in their particular area of related interest. The program culminates in a major creative project (novel, short story collection, or poetry collection) of publishable quality.


## Courses (ENGL)

To encourage clarity and uniformity in the reporting of scholarship, students in all English courses are expected to learn and use standard methods of citation and documentation. For literary and critical study, the standard format is the documentation system prescribed by the Modern Language Association, detailed in the MLA Handbook, and simplified in many beginning textbooks in literary study. At the instructor's discretion, other methods may be used in courses in composition, technical writing, literacy studies, and other classes required for the English Education option.

## LOWER DIVISION

Please check the section on "Application Procedures and Admissions Requirements" of this Catalog for CSU system-wide writing proficiency requirements.

## 1. Writing Skills (4)

Prerequisites: Students who score 147 or below on the English Placement Test and who have not taken equivalent courses in another department are eligible for enrollment in this course.
Basic course in writing, offering intensive practice in every stage of the writing process. Writing strategies at the level of word, sentence, and paragraph. Methods for developing and organizing ideas in coherent essays. Conventional mechanics, spelling, and grammar.
Does not count toward graduation but does count toward course load. Credit/No Credit grading only.

## 1E. Writing Skills (3)

Students who score 147 or below on the English Placement Test and who have not taken equivalent courses in another department, are eligible for enrollment in this course.
Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading. Reviews and teaches strategies for choosing appropriate words to developing sentences and paragraphs. Focuses on methods to develop and organize ideas in coherent essays. Teaches conventional mechanics, spelling, and the grammar of standard written English.
Does not count toward graduation but does count toward course load. Credit/No Credit grading only.

## 100. Composition (3)

Prerequisites: A recorded total score of 151 or above on the English Placement test, or credit in ENGL 1 (or its equivalent) and consent of the instructor.
Writing non-fiction prose, with emphasis on exposition. Readings may be assigned. Satisfies the baccalaureate degree requirement for one course in English composition.
Not open for credit to students with credit in ENGL 100W, B/ST 100, ASAM 100, CHLS 104. (CAN ENGL 2)

## 101. Composition (3)

Prerequisite: ENGL 100.
Writing expository prose, with emphasis on the research paper.

## 102. Critical Reading and Writing (3)

Prerequisite: ENGL 100 with a minimum grade of "C."
Analytical reading and persuasive writing with emphasis on logic and argumentation.
Not open for credit to students with credit in ENGL 200.

## 180. Appreciation of Literature (3)

Prerequisite/Corequisite: One Foundation course.
Study of works representing the scope and variety of themes and types of imaginative literature.
Not applicable toward an English major. Not open for credit to students with credit in ENGL 184.

## 184. Composition and Literature (3)

Prerequisite: ENGL 100.
Introduction to the major literary genres and to methods of critical expository writing, including methods of research and documentation.
Required of all English majors. Open to non-majors with consent of instructor.

## 204. Introduction to Creative Writing: Creative Nonfiction

 (3)Prerequisites: ENGL 100; completion of GE Foundation requirements.
Practice in the basic elements of creative nonfiction, including description, dialog, and framing.

## 205. Introduction to Creative Writing: Fiction (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements.
Practice in the basic elements of fiction writing: character sketch, plot development, description, dialog.
206. Introduction to Creative Writing: Poetry (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements.
Theory and techniques of poetry. Practice in creative work, with group discussions and individual conferences.
250A,B. Survey of English Literature $(4,4)$
Prerequisites: ENGL 100; completion of GE Foundation requirements.
Representative selections from English writers to and since the late eighteenth century.
(CAN ENGL 8, 250A; CAN ENGL 10, 250B)
270A,B. Survey of American Literature $(4,4)$
Prerequisites: ENGL 100; completion of GE Foundation requirements.

Representative selections from American writers to and since about 1865.

## 283. Science Fiction (3)

The literature of science fiction, from Frankenstein and H.G. Wells to the present, emphasizing the relevance of science and technology to literary fantasy.

## 285. Detective Fiction and Film (3)

Prerequisite: ENGL 100.
Designed to acquaint students with the variety of short stories, novels, and films available in the genre of detective fiction. These works, both on paper and on film, will be discussed using traditional literary analyses.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study. Therefore, ENGL 100 or its equivalent is a prerequisite for all upper-division courses.
An asterisk (*) next to a course number means the course is acceptable for the M.A. degree. An "I" next to a course number means the course is acceptable for Interdisciplinary Credit in General Education.

## 300. Advanced Composition (3)

Prerequisites: ENGL 100 and upper-division standing.
Study and apply rhetorical strategies of invention, arrangement, and style to write expository, analytic, and argumentative prose; examine how evidence is produced and presented in genres from different academic disciplines, from civic and workplace literacy, and from popular media.

301A. English Proficiency (3)
Prerequisites: ENGL 100 or equivalent.
Intermediate course in English usage with emphasis on building proficiency in oral and written language
Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English. Letter grade only (A-F).

## 301B. English Proficiency (3)

Prerequisites: ENGL 100 or equivalent.
Intermediate course in English usage with emphasis on building proficiency in oral and written language
Enrollment limited to students needing language development
beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English.

## 309. Applied Composition: Explorations in Children's Writing (4) F,S

Advanced composition course also incorporating the study of the evolution of written discourse and emergence of rhetorical structures in the writing of pre-adolescents
Includes a 40-hour tutorial/research component. Discussion/Laboratory

## 310. Applied Composition (4)

Prerequisite: ENGL 101 or 184 or 317 or a baccalaureate degree. Intensive practice in writing, correcting, and evaluating compositions, with specific reference to contemporary classroom situations and problems.
Includes a 30-hour tutorial component in which students work as composition tutors. Required for all Englishn Education majors.

## 317. Technical Communication (3)

Prerequisites: Completion of GE Foundation requirements and one Explorations course, upper-division standing, and a previous composition course, i.e., ENGL 100, 101, 102, 300, or equivalents.
Expository writing on technical subjects dealt with in industry, science, government, and the academy. Introduction to long and short forms including reports, proposals, manuals, and journal articles, emphasizing the longer formal paper or technical report.
318I. Theory of Fiction and Film (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of narrative methods and conventions of American and British fiction and film; consideration of relationships between artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film.
Same course as FEA 318I.

## 320. English Grammar (4)

Advanced study in the principles of English grammar.
327. Essentials of the English Language (3)

Prerequisite: ENGL 100 or its equivalent.
Introduction to the essentials of English language study for credential candidates, including the history of the English language, key models of English grammar, and applied topics ranging from semantics and dialect study to current research in the teaching of English.
Same course as LING 327.

## 337. Technology in the English Classroom (3)

Focuses on issues in use of computer-based technologies in society; basic components and operations of computer-based technology; computer applications/programs and video tape/film for teaching problem-solving, critical thinking, writing, and literature.
Meets Title 5 computer-education requirements for the Single Subject, Clear Teaching Credential in English and the Multiple Subject, Clear Teaching Credential with English Concentration.

## 359. Postcolonial Literature (3)

Prerequisite: Upper-division status.
Survey of English-language writers from former colonies of Great Britain who have made major contributions in all literary genres.

## 363. Shakespeare I (4)

Prerequisites: ENGL 100; completion of GE Foundation requirements. Principal plays of Shakespeare.

## 372I. Comedy in the United States (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Study of the history of American history from beginnings to present. Focuses on literature, but also on American traditions of humor on stage, in film, in song, and in signs. Explores theories of comedy.

## 375. American Ethnic Writers (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements.
Survey of American writers of various non-European ethnic backgrounds who have made major contributions in all literary genres.

## 380. Approaches to English Studies (4)

Prerequisite: ENGL 184 or equivalent.
Advanced course in English Studies covering research methods; approaches to literary, rhetorical, and pedagogical topics; critical and literary terminology; genre; and advanced skills in writing and analysis.
Note: English majors must consult with their advisors because this course should be taken by the first semester of the junior year.

## 382. Women and Literature (3)

Prerequisites: Completion of Foundation requirement.
Survey of literature by women authors writing in English, across a range of historical periods; examination of works in various genres that present the complexity of women's lives and the challenges of female authorship; exploration of feminist critical approaches. Same course as W/ST 382.

## 384. Principles of Literary Study (3)

Prerequisite: ENGL 184.
Fundamental issues of literary study such as literary history; literary forms; themes and conventions; major critical approaches. Intense written practice in literary analysis.
385. The Short Story (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements.
Short story as a literary genre, with emphasis on analysis of individual stories.

## 386. Poetry (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements.
Poetry as a literary genre, with emphasis on analysis of individual poems.
*390. Studies in Contemporary Literature (3)
Reading and analysis of literary works, British and American, written since 1945 .
Topics, themes, or limitations for each section will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.
*398. Modern Drama (3)
Continental, English, and American drama from Ibsen to the present.
*404. Creative Writing: Creative Nonfiction (3)
Prerequisite: ENGL 204 or consent of instructor.
Writing creative nonfiction with a detailed study of published models and with an emphasis on the creative process.
May be repeated to a maximum of 6 units.
*405. Creative Writing: Short Story (3)
Prerequisite: ENGL 205 or consent of instructor.
Writing short stories, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.
*406. Creative Writing: Poetry (3)
Prerequisite: ENGL 206 or consent of instructor.
Writing poetry, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.

## *407. Creative Writing: Novel (3)

Prerequisite: Consent of instructor.
Writing long fiction, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.

## *408. Writing the Screen Adaptation (3)

Prerequisite: FEA 303 or 304 with a ' B ' or better, or ENGL 405 or 407 with a ' $B$ ' or better, or consent of the instructor.
Writing script adaptations, with a study of adaptation theory and successful adaptation models.
May be repeated to a maximum of 6 units. Same course as FEA 408.
410./510. Theories of Writing and Literacy (3)

Prerequisite: ENGL 309 or 310 or consent of instructor.
Focuses on several cross-disciplinary theories of producing written discourse. Studies how writing is learned, taught, viewed by the public, and used in social and academic interchange.
411./511. Research Methods in Rhetoric and Composition (4)

Introduction to (inter)disciplinary research methods in Rhetoric and Composition. Focuses on methods that have been motivating research since 1985, including archival, case study, ethnographic, historiographic, and teacher research. Intensive practice in conducting and writing research for (inter)disciplinary and/or public audiences.

## 416. Technical Editing (4)

Prerequisites: Completion of GE Foundation requirements and one Explorations course.
Introduction to editing of written technical and business communication formats such as manuals, brochures, booklets, and newsletters. Teaches competence in the principles of sentence-level clarity and style, of factual accuracy, and of document design and production in professional settings.

## 417. Proposal Writing (3)

Prerequisites: Completion of GE Foundation requirements and one Exploration course, upper-division standing.
Intensive writing of proposals in their various forms as letters, memos, grant applications, etcetera.

## 418. Manual Writing (3)

Prerequisite: Completion of Foundation requirement.
Writing of original manuals of various types in technical and professional fields. Company publications will be studied as models.

## 419. Writing in Science, Social Science, and Technology

 (3)Prerequisites: Completion of GE Foundation requirements and one Exploration course, upper-division standing.
Intensive practice in writing on topics in science and literature. Contemporary examples will be studied as models.
423./523. Semantics (3)

Study of meaning in language.
Same course as LING 423.
426./526. History of the English Language (3)

Development of the English language from its beginnings to the present day.
Same course as LING 426.
*431. Classical Background of English Literature (3)
Greek and Roman literature, in translation, in relation to English literature; the interrelations of classical literature with philosophy and art.
432. Arthurian Literature: Medieval to Modern (3)

Examination of the genesis, development, and popularity of stories about King Arthur and his knights from the earliest medieval texts to modern treatments of the legend.
435. Teaching Composition (3)

Prerequisite: Consent of instructor.
Intensive examination and study of composition teaching practices, research and evaluation in public schools, including community colleges.

## 436. Theories and Practices of Reading (3)

Intensive investigation of theories and practices of reading with attention to how experienced and inexperienced readers construct text.
437. Technology and Teaching Language Arts (3) Prerequisites: ENGL 100 and 337 or consent of instructor. Intended for practicing teachers. Methods of integrating computerbased technology in instruction of writing, reading, and literature. Assessment and implementation of technological resources in place at students' school sites or other settings. Hybrid course with face-toface and electronic class interaction.
441. Women Writers of the Harlem Renaissance (3)

Prerequisites: ENGL 100 and upper-division status or consent of instructor.
Explores literature and lives of women authors of American Harlem Renaissance Period of 1920s. Examines critical reception, relative obscurity, and current re-discovery of these writers. Utilizes theoretical essays, biographical narratives, historical documents, and media images. Same course as W/ST 441.

## 442. Sexing Chicana Literature (3)

Prerequisites: ENGL100 and upper-division status or consent of instructor.
Studies how Chicana authors explore intersecting issues of race, class, and gender. Focuses on the use of sexuality in Chicana writing, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes will include desire, identity, empowerment through "traditional" roles, violence and the body, and other issues framed by historic and symbolic representations in Chicana Literature.
Same course as W/ST 442.

## 444. Literature and Environment (3)

Prerequisites: Completion of GE Foundation, one or more Explorations courses, and upper-division status.
Literature that focuses on the relationship between humans and the environment. Emphasis on how environmental texts represent nature, raise awareness of ecological issues, and encourage social change. Service learning requirement connects environmental literature with activism and community involvement.

## 451./554. Medieval Literature of the British Isles (3)

Representative selections of Old and Middle English prose and poetry read for the most part in modern English, including Beowulf, the romance, medieval drama, Chaucer, and the ballad.

## 452./552. Literature of the Renaissance (1500-1603) (3)

Prose and poetry of Marlowe, Sidney, Raleigh, Spenser, and other predecessors and contemporaries of Shakespeare, noting the influence of Humanism and the emergence of literary identity.
453./553. Literature of the Late Renaissance (1603-1660) (3)

Poetry and prose (chiefly non-dramatic) of Milton, Bacon, Jonson, Donne and the 'Metaphysicals,' and their contemporaries.

## 455./555. English Literature of the Enlightenment

 (1660-1798) (3)Prose and poetry (chiefly non-dramatic) of Swift, Dryden, Pope, Johnson, Boswell, and their contemporaries, with emphasis on major satires such as Gulliver's Travels and The Rape of the Lock.
456./556. English Literature of the Romantic Period (1798-1832) (3)
Poetry and prose (chiefly non-dramatic) of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries, emphasizing the modern Romantic spirit, theories of literary art, and the concept of the self.
458./558. English Poetry and Prose of the Victorian Age (1832-1900) (3)
Poetry and prose of Tennyson, Browning, Arnold, Carlyle, Mill, and others, emphasizing literary, social, and political issues, and religious controversies.

## 459./559. English Literature of the Twentieth Century

 (1900-Present) (3)Prose and poetry of Shaw, Conrad, Yeats, Lawrence, Joyce, Woolf, and others, emphasizing artistic experimentation and the development of modern value systems.
*461. Essentials of Old/Middle English (3)
The Old English and Middle English languages and dialects are studied through the exploration of representative literature.

## 462./562. Chaucer (3)

Works of Geoffrey Chaucer in Middle English.
*463. Shakespeare II (3)
Prerequisite: ENGL 363.
Advanced study of some of the plays of Shakespeare.

## 466./566. Irish Literature in English (3)

Major Irish authors from the Celtic Revival to the present. The literature will be placed in its historical and political contexts, paying particular attention to the relationship between politics and literature, the status of women, and questions of national identity.

## 467A,B./567A,B. The English Novel $(3,3)$

History and development of long prose fiction in the British Isles to and since 1832.

## 468./568. English Drama (3)

Readings from the history of English drama, excluding Shakespeare, including Marlowe, Jonson, and Restoration comedy.
*469. Critical Studies in Major English Writers (4)
Prerequisites: At least senior standing and 12 units of upperdivision English (including ENGL 380).
Intensive study of one to three major English authors.
May be repeated to a maximum of 8 units with different authors, but no more than 4 units may be used to satisfy requirements for English major. Topics to be announced in the Schedule of Classes.

## 470. American Ethnic Literatures (3)

Prerequisite: ENGL 375 or consent of instructor.
Advanced course in the examination of issues in the field of American ethnic writing.
472./572. American Literature: 1820-1865 (3)

Intensive examination of the major authors and works, along with newly recovered texts, from the period that is often called the "American Renaissance."
473./573. American Literature: 1865-1918 (3)

In-depth exploration of leading developments in poetry, the novel, the short story, and non-fictional prose in the United States between the Civil War and World War I.

## 474./574. Twentieth-Century American Literature (3)

American literature from about 1914 to the present.
475./575. The American Short Story (3)

History and development of the short story and its criticism in the United States.

## 476A,B./576A,B. American Poetry (3,3)

History and development of poetry and its criticism in the United States to and since 1945.
477A,B./577A,B. The American Novel (3,3)
History and development of the novel and its criticism in the United States to and since the 1920s.

## 478./578. American Drama (3)

History and development of drama and its criticism in the United States.

## *479. Critical Studies in Major American Writers (4)

Prerequisites: At least senior standing and 12 units of upper-division English (including ENGL 380).
Intensive study of one to three major American authors.
May be repeated to a maximum of 8 units with different authors, but no more than 4 units may be used to satisfy the requirements for the English major. Topics to be announced in the Schedule of Classes.

## 481. Children's Literature (3)

Survey of literature suitable for children.
482. Literature for Adolescents (4)

Prerequisite: One college course in literature.
Survey of literature suitable for adolescents. Includes a 20-hour field experience in which students work with local secondary school students as reading mentors.
Required of all English Education majors.

## 483. Women in the Early Modern Era (3)

Study of representations and realities of women's lives, 15001800, from international and interdisciplinary perspectives. Critical methodology of history and literature; explores women's experiences of law and economics; religion; education and culture; marriage, sex, and health; politics and revolution.

## 484./584. Contemporary Literary Theory (3)

Study of the principal theories of literature including structuralism, hermeneutics, theory of genre, and theory of criticism.

## *488. Topics in Rhetoric and Writing Studies (3)

Prerequisite: ENGL 100.
Intensive study of a special topic in the field of rhetoric, composition, and writing studies.
May be repeated to a maximum of 12 units with different topics in the same semester, but no more than 6 units may be applied to the English major. Topics to be announced in the Schedule of Classes.
*489. Critical Studies in Major Topics in Literatures Written in English (4)
Intensive study of a major topic in literatures written in English.
May be repeated to a maximum of 8 units with different topics in different semesters, but no more than 4 units may be used to satisfy the requirements for the English major. Topics to be announced in the Schedule of Classes.

## 491. Applied Technical Writing (1-3)

Prerequisite: Admission to Certificate Program in Technical and Professional Communication.
Writing and editing technical reports and papers. Independent production of a report in a technical or scientific area under faculty supervision.
May be repeated to a maximum of 4 units.

## 492A-B. Internship Technical - Professional Writing and

 Editing (1-3)Prerequisite: Admission to Certificate Program in Technical and Professional Communication.
At least 90 hours writing and editing with cooperating agencies and companies on- and off-campus under direction and with evaluation of faculty in consultation with supervisors of the participating agency or company.
May be repeated to a maximum of 4 units.

## *496. California Writing Project (1-4)

Specifically designed for teachers, prospective teachers, school administrators, and writers. Successful practices in teaching writing; writing and responding to others' writing; theory and research behind successful literacy training.
CSULB-South Basin Writing Project is an affiliate of both the California and National Writing Projects.

## 497. Directed Studies in Composition (3)

Prerequisite: One upper-division writing course in English or consent of instructor.
Theory and practice of writing and language instruction.
Recommended for prospective K-12 and college-level teachers.
On-site participation in an educational setting required as a basis for research project.
*498. Topics in English (3)
Intensive exploration of topics in language and literature.
May be repeated to a maximum of 12 units with different topics in the same semester, but no more than 6 units may be applied to the English major. Topics to be announced in the Schedule of Classes.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study undertaken under supervision of a faculty member.
May be repeated to a maximum of 4 units. Not applicable toward the Master of Arts in English.

## GRADUATE LEVEL

See Comparative World Literature and Classics Department for course offerings applicable to the M.A. in English.

## 505A. Seminar in Fiction Writing (4)

Prerequisite: Admission to the MFA in Creative Writing.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 505B. Seminar in Fiction Writing (4)

Prerequisites: Admission to the MFA in Creative Writing and ENGL 505A.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 506A. Seminar in Poetry Writing (4)

Prerequisite: Admission to the MFA in Creative Writing.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 506B. Seminar in Poetry Writing (4)

Prerequisites: Admission to the MFA in Creative Writing and ENGL 506A.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 510./410. Theories of Writing and Literacy (3)

Prerequisite: ENGL 309 or 310 or consent of instructor.
Focuses on several cross-disciplinary theories of producing written discourse. Studies how writing is learned, taught, viewed by public, and used in social and academic interchange.
Letter grade only (A-F).

## 511./411. Research Methods in Rhetoric and Composition (4)

Introduction to (inter)disciplinary research methods in Rhetoric and Composition. Focuses on methods that have been motivating research since 1985, including archival, case study, ethnographic, historiographic, and teacher research. Intensive practice in conducting and writing research for (inter)disciplinary and/or public audiences.
Letter grade only (A-F).
523.1423. Semantics (3)

Study of meaning in language. Letter grade only (A-F).
526./426. History of the English Language (3)

Development of English language from its beginnings to present day.
Letter grade only (A-F).
535. Theories and Practices in Composition (3)

Prerequisite: ENGL 435 or consent of instructor.
Focuses on formation of composition studies in latter half of twentieth century. Studies relationships among theories, practices, and research concerned with the teaching of writing, particularly at the college level.
Letter grade only (A-F).

## 537. Special Topics (3)

Designed for in-service teachers. Intensive studies and research in special, timely topics related to the teaching of English.
May be repeated to a maximum of 6 units with different topics in the same semester. Topics to be announced in the Schedule of Classes. Letter grade only (A-F).

## 550. Old English Language and Literature (4)

Prerequisite: ENGL 461 or consent of instructor.
Beowulf and other representative selections from Anglo-Saxon literature in the original language.
Letter grade only (A-F).

## 551. Middle English Language and Literature (4)

Prerequisite: ENGL 461 or consent of instructor.
Chaucer and other representative selections from Middle English literature in the original language.
Letter grade only (A-F).

## 552./452. Literature of the Renaissance (1500-1603) (3)

Prose and poetry of Marlowe, Sidney, Raleigh, Spenser and other predecessors and contemporaries of Shakespeare, noting the influence of Humanism and the emergence of literary identity. Letter grade only (A-F).

## 553./453. Literature of the Late Renaissance (1603-1660)

(3)

Poetry and prose (chiefly non-dramatic) of Milton, Bacon, Jonson, Donne and the "Metaphysicals" and their contemporaries.
Letter grade only (A-F).

## 554./451. Medieval Literature of the British Isles (3)

Representative selections of Old and Middle English prose and poetry read for the most part in modern English, including Beowulf, the romance, medieval drama, Chaucer, and the ballad.
Letter grade only (A-F).

## 555./455. English Literature of the Enlightenment

 (1660-1798) (3)Prose and poetry (chiefly non-dramatic) of Swift, Dryden, Pope, Johnson, Boswell, and their contemporaries, with emphasis on major satires such as Gulliver's Travels and The Rape of the Lock. Letter grade only (A-F).
556./456. English Literature of the Romantic Period (1798-1832) (3)
Poetry and prose (chiefly non-dramatic) of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries, emphasizing the modern Romantic spirit, theories of literary art, and the concept of the self.
Letter grade only (A-F).
558./458. English Poetry and Prose of the Victorian Age (1832-1900) (3)
Poetry and prose of Tennyson, Browning, Arnold, Carlyle, Mill, and others, emphasizing literary, social and political issues, and religious controversies.
Letter grade only (A-F).
559./459. English Literature of the Twentieth Century (1900-Present) (3)
Prose and poetry of Shaw, Conrad, Yeats, Lawrence, Joyce, Woolf, and others, emphasizing artistic experimentation and the development of modern value systems.
Letter grade only (A-F).
562./462. Chaucer (3)

Works of Geoffrey Chaucer in Middle English.
Letter grade only (A-F).
566./466. Irish Literature in English (3)

Major Irish authors from the Celtic Revival to the present. The literature will be placed in its historical and political contexts, paying particular attention to the relationship between politics and literature, the status of women, and questions of national identity.
Letter grade only (A-F).
567A,B./467A,B. The English Novel $(3,3)$
History and development of long prose fiction in the British Isles to and since 1832.
Letter grade only (A-F).

## 568./468. English Drama (3)

Readings from the history of English drama, excluding Shakespeare, including Marlowe, Jonson, and Restoration comedy.
Letter grade only (A-F).
572./472. American Literature: 1820-1865 (3)

Intensive examination of major authors and works, along with newly recovered texts, from period that is often called the
"American Renaissance."
Letter grade only (A-F).
573./473. American Literature: 1865-1918 (3)

In-depth exploration of leading developments in poetry, the novel, the short story, and non-fictional prose in the United States between the Civil War and World War I.
Letter grade only (A-F).
574./474. Twentieth-Century American Literature (3)

American literature from about 1914 to the present.
Letter grade only (A-F).

## 575./475. The American Short Story (3)

History and development of the short story and its criticism in the United States.
Letter grade only (A-F).

## 576A,B./476A,B. American Poetry (3,3)

History and development of poetry and its criticism in the United States to and since 1945.
Letter grade only (A-F).
577A,B./477A,B. The American Novel $(3,3)$
History and development of the novel and its criticism in the United States to and since the 1920s.
Letter grade only (A-F).

## 578./478. American Drama (3)

History and development of drama and its criticism in the United States.
Letter grade only (A-F).

## 583. Special Topics in Literature (3)

Intensive studies in special topics in literary theory, techniques, types, genres, modes, themes, movements, and in the relations of literature with other arts and disciplines.
May be repeated to a maximum of 6 units with different topics. Topics to be announced in the Schedule of Classes. Letter grade only (A-F).

## 584./484. Contemporary Literary Theory (3)

Study of the principal theories of literature including structuralism, hermeneutics, theory of genre, and theory of criticism.
Letter grade only (A-F).

## 590. Directed Reading (3)

Students are assigned a reading list developed with the assistance of faculty. Works are discussed with the instructor during a series of conferences. Comprehensive paper due at end of semester.
Taken for two semesters during student's second year of residency in MFA program. May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 598. Directed Studies (1-3)

Prerequisites: Baccalaureate degree, consent of instructor. Independent creative writing activity under the supervision of a creative writing faculty member.
May be repeated to a maximum of 6 units. Letter grade only $(A-F)$.

## 605A. Advanced Seminar in Fiction Writing (4)

Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, and 505B.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 605B. Advanced Seminar in Fiction Writing (4)

Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, 505B, and 605A.

Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 606A. Advanced Seminar in Poetry Writing (4)

Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, and 506B.
Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 606B. Advanced Seminar in Poetry Writing (4)

Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, 506B, and 606A.

Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

## 652. Seminar in the English Renaissance (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in the literature of the period, chiefly Elizabethan. Letter grade only (A-F).
653. Seminar in the Age of Milton (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Stuart and Commonwealth periods, including Milton.
Letter grade only (A-F).
655. Seminar in Restoration and Eighteenth-Century Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Restoration and eighteenth century.
Letter grade only (A-F).
656. Seminar in Romantic Literature (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Romantic period.
Letter grade only (A-F).

## 657. Seminar in Victorian Literature (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Victorian period.
Letter grade only (A-F).
659. Seminar in TwentiethCentury English Literature (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature from about 1900 to the present.
Letter grade only (A-F).

## 671. Digital Rhetoric (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies of consumption and production of digital media. Analyses relationships among rhetoric, writing, cultural studies, and technology; examines means of production transforming literate practice in humanities; and engages students in writing with digital media.
Letter grade only (A-F).

## 672. Seminar in the Nineteenth-Century American Renaissance (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in American literature from about 1820 to about 1865.

Letter grade only (A-F).

## 673. Seminar in American Realism (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in the development of realism in American literature.
Letter grade only (A-F).

## 674. Seminar in Twentieth-Century American Literature

 (4)Prerequisite/Corequisite: ENGL 696.
Intensive studies of twentieth century American writers.
Letter grade only (A-F).

## 681. Seminar in Major Authors (4)

Prerequisite/Corequisite: ENGL 696.
Intensive studies in the works of one to three specific major authors.
Not open for credit to students with credit in ENGL 469 or 479 covering the same author. May be repeated to a maximum of 12 units with different authors in the same semester. Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 12 units in the same semester. Letter grade only (A-F).
683. Seminar in Special Topics in English Studies (4) Prerequisite/Corequisite: ENGL 696.
Intensive explorations of topics in English studies.
May be repeated to a maximum of 8 units with different topics in the same semester. Topics to be announced in the Schedule of Classes. Letter grade only (A-F).
684. Seminar in Advanced Literary Theory (4)

Prerequisite: Completion of ENGL 696.
Intensive study in one or more of the principal theories of literature. Letter grade only (A-F).
685. Seminar in Rhetorical History and Theory (4)

Prerequisite/Corequisite: ENGL 696.
Intensive study of rhetorical history and theory from ancient to contemporary time.
Letter grade only (A-F).

## 696. Seminar in Literary Criticism and Research (4)

Study of major critical approaches to literature and basic literary research methods. Introduction to the discipline of literary criticism, various critical methodologies, techniques of bibliography and research, and important literary reference works. Writing of critical research papers.
Students not allowed to take ENGL 696 unless admitted to M.A. program. (English M.A. candidate may not be enrolled in any other 600 course without completion of or concurrent enrollment in ENGL 696.) Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisites: ENGL 696 and consent of instructor.
Individual research or intensive study under the guidance of a faculty member.
Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisites: ENGL 696 and consent of instructor.
Planning, preparation, and completion of a thesis under supervision of a faculty committee.
Must be advanced to candidacy. Must be taken for a total of 6 units.

## American Language Program

American Language Program (ALP) courses are for nonnative speakers of English. ALI courses are recommended for international students (students on F-1 visas). ALP courses are recommended for all other non-native speakers of English.

## Courses (ALP)

## 145. American Language Advanced I (3)

Prerequisites: Non-native speakers who score 137 or below on the English Placement Test, or 500 or below on the Exam in English as a Second Language, and who have not taken equivalent writing courses in another department are eligible for enrollment in this course.
Basic course in writing, offering intensive practice in every stage of the writing process. Writing strategies at the level of word, sentence, and paragraph. Conventional mechanics, spelling, and the grammar of standard edited written English.
Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates.

## 150. American Language Advanced II (3)

Prerequisite: Non-native speakers who score between 138 through 150 on the English Placement Test, between 501 through 550 on the Exam in English as a Second Language, or successful completion of ALI/ALP 145 with a grade of "C" or better.
Includes critical/analytical reading and expository writing with emphasis on longer essays. Analysis and practice of standard rhetorical modes of essay development.
Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates. Counts as a prerequisite for ENGL 100.

## American Language Institute

For students who need English language training prior to enrolling at CSULB, the American Language Institute provides professional instruction in all four language skills: reading, writing, listening and speaking. Conditional admission to CSULB is available for qualified students. PLEASE NOTE: International students are subject to the same Graduation Writing Assessment Requirement (GWAR) and EPT/ELM requirements as are all CSULB students.

American Language Institute (ALI) courses are for nonnative speakers of English. ALI courses are recommended for international students (students on F1 visas). ALP courses are recommended for all other non-native speakers of English.

## Courses (ALI)

## 145. American Language Advanced I (3)

Prerequisite: Non-native speakers who score 137 or below on the English Placement Test, or 500 or below on the Exam in English as a Second Language, and who have not taken equivalent writing courses in another department, are eligible for enrollment.
Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates.
Basic course in writing, intensive practice in every stage of writing process from generating ideas to final proofreading. Reviews and teaches organizational strategies and includes strategies for paragraph and sentence development and for making appropriate word choices. Teaches conventional mechanics, spelling and the grammar of standard edited written English.

## 150. American Language Advanced II (3)

Prerequisite: Non-native speakers who score between 138 through 150 on the English Placement Test, between 501 through 550 on the Exam in English as a Second Language, or successful completion of ALI/ALP 145 with a grade of "C" or better.
Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates.
Includes critical/analytical reading and expository writing with emphasis on longer essays. Analysis and practice of standard rhetorical modes of essay development.

# ENVIRONMENTAL SCIENCE AND POLICY 

College of Liberal Arts
College of Natural Sciences and Mathematics

Directors<br>Stanley C. Finney, Darwin C. Hall<br>Department Offices<br>Environmental Science and Policy, SS/PA 340<br>Telephone<br>562-985-8097; Fax: 562-985-5352<br>\section*{Website}<br>http://www.csulb.edu/programs/es-p<br>Email<br>prog-esp@csulb.edu<br>Faculty<br>Richard J. Behl (Geological Sciences) Stuart R. Berryhill (Chemistry and Biochemistry), Michael D. Cannon (Anthropology), Esteban Fernandez-Juricic (Biological Sciences), Stanley C. Finney (Geological Sciences), Darwin C. Hall (Economics), Gregory J. Holk (Geological Sciences), Daniel O. Larson (Anthropology), Wade E. Martin (Economics), Andrew Z. Mason (Biological Sciences), Xuemei Liu (Economics), Christine M. Rodrigue (Geography), Suzanne P. Wechsler (Geography)

## Administrative Assistant

Mayra Garcia

The Environmental Science and Policy degree program is jointly housed in the College of Liberal Arts and the College of Natural Sciences and Mathematics, reflecting its inherent interdisciplinary nature.

Today's environmental problems call for people who are educated in more than one discipline, highly trained in technical skills, and aware of the political, economic, and social dimensions of environmental decisions. The B.A. and B.S. degrees in Environmental Science and Policy provide solid training in basic physical, biological, and social sciences, and also address the human involvement in environmental issues. This curriculum prepares students for professional careers in Environmental Science and Policy and for subsequent graduate study in M.A., M.S., Ph.D., and law degree programs.

In the narrowest sense, environmental science is the study of the impact of human systems on physical and biological systems, and the dependence on natural resources by human systems. In a broader sense, environmental science is the study of the interaction and co-evolution of human, physical, and biological systems. Natural science is the study of physical and biological systems. Social science is the study of human systems - economic systems, political systems, human perceptions, and human interactions. Environmental science requires knowledge of both natural and social science. Environmental policy is concerned with the most effective means of intervening to alter the pathways among which natural and human systems coevolve. Effective intervention considers benefits and costs, uncertainties and risks, limits of knowledge, and presupposes the purposes of intervention, and the values from which the purposes are derived. The purpose of environmental science and policy is to design, evaluate, and implement policies that alter the impact of human systems on physical and biological systems, and the pathways by which natural and human systems co-evolve.

Both Bachelor of Science and Bachelor of Arts degrees are offered, as well as a minor. Most required courses are those offered in related disciplines in the College of Natural Sciences and Mathematics and the College of Liberal Arts. The curriculum fosters cross-disciplinary communication in the several required courses common to both degree programs and particularly in the Environmental Science and Policy courses (ES P 200, 300I, 400).

The mix of required courses includes both natural and social sciences in both degree programs, while emphasizing natural sciences in the B.S. program and emphasizing social sciences in the B.A. program. Elective courses in the B.S. program enhance the students' knowledge in natural sciences and quantitative/computer skills in the social sciences. Elective courses in the B.A. program emphasize applications of social science to environmental issues and policy, while permitting students to further develop their knowledge of natural sciences. The curricula of the two degrees are designed to encourage and facilitate students pursuing double majors with departments in natural or social science.

## Career Paths

The Directors together with the Faculty are responsible for advising majors in the Environmental Science and Policy degree program. Majors are assigned to appropriate advisors during their first semester in the program and are encouraged to consult with their advisor every semester. Students will be advised to select elective courses to develop areas of interest and to further their career objectives.
B.S. Degree: We advise majors to jointly major or minor in anthropology, ecology, microbiology, chemistry, geology, economics, or geography. The B.S. degree requires an advanced level of understanding of earth systems, living systems, and the role and effect of chemicals in natural
systems. Graduates are trained for entry positions in industry and government that require a high degree of specialization in technical analyses in natural sciences, or quantitative and computer methods in social sciences. Graduates with the B.S. degree with a track in natural sciences will be qualified for graduate programs (M.S. and Ph.D.) in biological sciences, geology or chemistry, at most universities in the country. Graduates with the B.S. degree with a social science track are qualified to apply for the M.S. program in Environmental Health Sciences at UCLA, and subsequently the interdepartmental doctoral program in Environmental Science and Engineering degree at UCLA; the Ph.D. program in economics and environmental science at UC Santa Barbara; the Ph.D. program in Social Ecology at UC Irvine; and the M.A. and Ph.D. program in Energy and Resources at UC Berkeley.
B.A. Degree: We advise majors to jointly major or minor in anthropology, economics, or geography, pursue the minor in journalism or the option in public relations in journalism, the political science major or minor, the minor in public administration in political science, or the major or minor in international studies, depending on the student's career goals and interests. Graduates are especially well prepared for positions in state and local government, private consulting firms, energy companies, news organizations, environmental advocacy groups, consulting firms, and public relations firms. Graduates are prepared to directly enter Ph.D. programs in economics and geography, as well as M.B.A. programs in environmental science and management, M.A. programs in economics or geography, and law school.

## Bachelor of Arts in Environmental Science and Policy (code ES_PBA01) (120 units)

The B.A. degree program emphasizes the social sciences, with a basic introduction to physical and biological sciences applied to natural systems. Required courses emphasize social sciences and include breadth in natural sciences. Elective courses include social sciences applied to environmental analysis and policy, and permit some additional coursework in natural sciences.
Lower Division: BIOL 200 or 211A, 260; CHEM 140 or 111A; ECON 100, 101; ES P 200; GEOL 102, 104, 280; MATH 115 or 119A or 122.
Upper Division: BIOL 350; ECON 310; one course selected from ECON 462, 463, and 464; ES P 3001, 400; GEOG 481 or 485 ; one course selected from GEOG 442, 455, and 460; GEOL 300I; one course selected from POSC $328,329,431$ or 432.
Additional 21 units of course work selected from the following courses, 12 units of which must be upper division or approved by the advisor.
Approved Courses: ANTH 140, 301, 481; BIOL 303; COMM 330; ECON 355, 403, 410H, 434, 462, 463, 464, 485, 486; ENGR 302I; ES P 490, 491, 499; GEOG 160, 355I, 400, 440, 442, 443, 452, 455, 458, 460, 473, 474, 475A, 475C, 482, 486, 487A, 488; GEOL 190, 250, 303, 339; H SC 422; HIST 481, 482; MATH 123, 380, 381; MICR 200; PHYS 100A or 151; POSC 328, 329, 431, 432, 442; SOC 350, 410 I.

## Bachelor of Science in Environmental Science and Policy (code ES_PBS01) (120 units)

The B.S. degree program emphasizes the physical and biological sciences, with a basic introduction to social science methods applied to human systems. Required courses emphasize natural sciences and include breadth in social sciences. Elective courses include physical and biological sciences, and technical courses in social sciences.
Lower Division: BIOL 211A, 211B, 260; CHEM 111A, 111B; ES P 200; GEOL 102, 104, 280; MATH 119A or 122, MATH 119B or 123.
Upper Division: BIOL 350; CHEM 327 (or 320A); ECON 300 (or both 100 and 101), 310; one course selected from ECON 462, 463, and 464; ES P 300I, 400; GEOG 481 or 485; GEOL 300I.
Additional 20 units of course work selected from the following approved list of courses, 8 units of which must be upper division or approved by the advisor.
Natural Science Track: 12 units must be in Biology, Microbiology, Environmental Science and Policy, Geology, Chemistry, Chemical Engineering, and Mathematics. PHYS 100A,B (or 151, 152) are required.
Social Science Track: 12 units must be in Anthropology, Economics, Geography, and Mathematics.
Approved Courses: ANTH 140, 301, 481; PHYS 100A,B or PHYS 151, 152; BIOL 303, 313, 324, 353, 427, 450, 451, 456, 457, 459, 464, 465, 467; CHEM 251, 320B, 377A,B, 441A, 451; CH E 475; ENGR 302I; ECON 355, 403, 410H, 434, 462, 463, 464, 485, 486; ES P 490, 491, 499; GEOG 400, 440, 442, 443, 452, 455, 458, 460, 473, 474, 475A, 475C, 482, 486, 487A, 488; GEOL 190, 250, 303, 339, 443, 460, 461, 465, 466, 477, 554, 556; H SC 422; MATH 380, 381; MICR 200, 211; NSCI 492.

## Minor in Environmental Science and Policy (code ES_PUM01)

This minor may be combined with any major at CSULB except the B.A. and B.S. in Environmental Science and Policy. The minor requires a minimum of 20 units (at least 9 of which must be upper division) of course work in Anthropology, Biology, Microbiology, Economics, Environmental Science and Policy, Geography, or Geology.

## Prerequisites

Students are required to take the following courses: BIOL 200 (or BIOL 211A), ECON 300 (or 100 and 101), and GEOL 102 and 104 as prerequisites for the following required courses, but these prerequisites do not count toward the minor.

## Requirements

Students must take ES P 200, 300I, and a minimum of 14 additional units from the following: ANTH 140, 301, 481; BIOL 303, 350, 353, 450, 451, 456, 457, 459, 464; MICR 303; ECON 306I, 462, 463, 464; ES P 400; GEOG 440, 442, 443, 444, 455, 458, 460, 487A; and GEOL 190, 191, 280, 3001, 303, 465, 466, 477.

## Environmental Science and Policy Courses (ES P)

## LOWER DIVISION

## 200. California Environmental Issues (3)

Prerequisites or corequisites: GEOL 102, 104; BIOL 200 or 211A; ECON 101 or 300 .
Introduction to the history, nature, status, and future of a major environmental issue in California. Biological, physical, and societal aspects will be examined and integrated with the goal of developing a plan to meet the challenges of the 21st Century.
Letter grade only (A-F). (Lecture 2 hrs., discussion 1 hr., and field trips.)

## UPPER DIVISION

## 3001. Environmental Law and Policy (3)

Prerequisites: Completion GE Foundation Requirements; both ECON 100 and 101, or ECON 300; POSC 100; and upper division standing.
Property rights, federal and state roles in decision-making, rights and limits of both private parties and the broad public interest. Emphasis on science in decision-making, choices between regulations and incentives, and role of bureaucracy.
Letter grade only (A-F). (2 hrs lecture, 1 hr discussion).
400. Environmental Science and Policy Capstone Project (3)
Prerequisites: BIOL 350; ECON 462 (or 463 or 464); ES P 200, 3001; GEOG 481 or 485; GEOL 300I.
An interdisciplinary evaluation of the physical, biological, social, economic, and legal dimensions of a local environmental issue. Examples include policies to control surface water run-off, policies for marine protected areas, dredging harbors, and developing preserving, restoring wetlands and estuaries.
Letter grade only (A-F). (2 hrs lecture, 3 hr laboratory and field work).
490. Special Topics in Environmental Science and Policy (3)
Prerequisite: Consent of instructor.
Topics of current interest in environmental science and policy selected for intensive development.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).
491. Senior Thesis/Project in Environmental Science and Policy (1-6)
Prerequisites: Senior status and consent of instructor.
Final completion of a thesis or research project.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

## 495. Environmental Science and Policy Internship (3)

Prerequisite: Consent of instructor.
Practical experience in an appropriate business, government, or non-profit organization.
May be repeated to a maximum of 6 units in different semesters. Credit/No credit grading only.

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# FAMILY AND CONSUMER SCIENCES <br> College of Health and Human Services 

Department Chair<br>M. Sue Stanley<br>Department Office<br>Family and Consumer Sciences (FCS) Bldg., Room 001<br>Telephone / Fax<br>(562) 985-4484 / 985-4414<br>Website<br>www.csulb.edu/depts/fcs<br>Faculty<br>Professors<br>Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma<br>\section*{Associate Professors}<br>Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson<br>\section*{Assistant Professors}<br>Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh<br>\section*{Graduate Advisors}<br>Mary Jacob, Wendy Reiboldt<br>Single Subject Credential Advisor<br>Margaret Lichty<br>Administrative Support Assistant<br>Lynisha McDuel<br>\section*{Administrative Support Coordinators}<br>Isabel Alvarado, Kim Romar<br>Instructional Support Technician<br>Bonnie Rice

The faculty of the Department of Family and Consumer Sciences seeks to prepare men and women to enter professions concerned with enhancing the quality of individual and family life in the context of the near environment. The following objectives have been articulated:

To prepare men and women to the highest standards for professions in Family and Consumer Sciences and related fields requiring a bachelor's or master's degree.
To prepare students for successful careers within the diversity of human relationships while enhancing their own physical, psychological, and emotional development through their lifespan.
To provide continuing education and post-master's study in professional fields of Family and Consumer Sciences.

To provide information to a diverse student population and the community about current services and career opportunities as well as the potential for emerging professional careers in a changing society.
To employ the most effective methodology and useful resources on the university campus and in the surrounding communities. Provide the best quality program within the structure of the CSU system.
To continue creative and scholarly research for the future growth of the profession.
To apply knowledge gained from research and study to serve the needs identified in the university and surrounding community.

## Accreditation

The Department of Family and Consumer Sciences is accredited by the American Association of Family and Consumer Sciences (AAFCS) (American Association of Family and Consumer Sciences, Council for Accreditation, 1555 King Street, Alexandria, VA 22314, phone: 703-706-4600). The Didactic Program in Dietetics and the Dietetic Internship are accredited by the American Dietetic Association (ADA) (Commission on Accreditation for Dietetics Education, American Dietetic Association, 216 West Jackson Boulevard, Suite 800, Chicago, IL 60606-6995, phone: 312-899-4872). The Preschool and Toddler Study Laboratories are accredited by the National Association for the Education of Young Children. The Child Development and Family Studies Program is approved by the National Council on Family Relations to offer a program leading to Provisional Family Life Education Certification.

The Department of Family and Consumer Sciences offers programs of study leading to the Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science degrees.

Curricula are designed to provide a liberal arts education through study in the social and natural sciences, the humanities and the arts, and to offer specialized instruction based on these disciplines which will lead to professional careers in Family and Consumer Sciences and related fields.

Programs of study cover various aspects of the field: Fashion Merchandising and Design; Child Development and Family Studies; Consumer Affairs; FCS Education; Food Science; Gerontology; Hospitality Foodservice and Hotel Management; Nutrition and Dietetics.

Degrees and certificates available in the Family and Consumer Sciences Department include:

- Bachelor of Arts in Family and Consumer Sciences in the following option areas: Child Development and Family Studies; Family and Consumer Sciences Education; Family Life Education; Consumer Affairs; Fashion Merchandising; and Textiles and Clothing.
- Bachelor of Science in Dietetics and Food Administration in the following option areas: Nutrition and Dietetics; Food Science; and Hospitality Foodservice and Hotel Management.
- Master of Arts in Family and Consumer Sciences
- Master of Science in Nutritional Science
- Master of Science in Gerontology (specific requirements are listed under Gerontology)
- Dietetic Internship
- Child Development Certificate
- Foodservice Systems Administration Certificate
- Gerontology Certificate (Specific requirements are listed under Gerontology)
- Home Economics Single Subject Teaching Credential (a 5th year of study is required.)
Information about Family and Consumer Sciences
sponsored degrees and certificates are organized by degrees and options.


## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in six option areas of study

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Merchandising
- Textiles and Clothing

Requirements for all majors include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is first accepted by the University.

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this catalog.

## Bachelor of Science in Dietetics and Food Administration

The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in three option areas of study:

- Nutrition and Dietetics
- Food Science
- Hospitality Foodservice and Hotel Management

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

Requirements for the major include a minimum of 131 units for Nutrition and Dietetics. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences is required, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is accepted by the University.

## GRADUATE PROGRAMS

## Master of Arts in Family and Consumer Sciences (code FCS_MA01)

The Master of Arts degree in Family and Consumer Sciences is designed for students seeking a master's degree, or professional enhancement, or for those wishing to pursue further graduate study. The mission of the program is to educate students to become competent researchers and practitioners who are responsive to the complex and changing needs of diverse families and communities.

The main goal of the graduate program is to provide an opportunity for students to increase competencies and knowledge within their disciplines. In addition, the program gives students opportunities to develop professional leadership and administrative skills. Students are able to work collaboratively with individuals in other disciplines as well as diverse communities to improve the quality of life.

The focus of the curriculum is to promote an understanding of theoretical approaches to the study of the disciplines within the department and the application of theories to enhance the quality of life of individuals, families, and communities. All students will get a strong background in research methods. The advanced candidate selects either a thesis track or directed project track to facilitate a selected career path. Students can expect to:

- Gain professional knowledge development,
- Develop scholarship and research abilities,
- Enhance professional development.

There are four specializations in the Master of Arts degree in Family and Consumer Sciences.

- Consumer Affairs
- Family and Consumer Sciences Education
- Fashion Merchandising and Design
- Hospitality Foodservice and Hotel Management Interested students should contact Dr. Mary Jacob, Family and Consumer Sciences Graduate Coordinator for Fall, at (562) 985-4516 or marjacob@csulb.edu or contact Dr. Wendy Reiboldt, Family and Consumer Sciences Graduate Coordinator for Spring at (562) 985-8250 or reiboldt@csulb. edu. On-line information can be found at www.csulb.edu/ ~marjacob.


## Admission

Prospective applicants must comply with University requirements for admission to graduate studies as outlined in the CSULB Catalog. Students must concurrently submit applications to the University Admissions and Records office and the Department.

## Admission Requirements to the Department

Admission to the Master of Arts in Family and Consumer Sciences is dependent upon approval by the Graduate Coordinator. The application requirements for prospective graduate students for the Master of Arts degree are:

1. An undergraduate overall GPA of at least 3.0 and a GPA of at least 3.0 in the last 60 undergraduate semester units.
2. A copy of the application submitted to the University Office of Admissions and Records.
3. Official transcripts of your baccalaureate degree. (These are in addition to those transcripts required for general admission to California State University, Long Beach).
4. Three letters of recommendation (preferably from previous instructors).
5. Submission of official copy of Graduate Record Examination (GRE). A minimum score of 4 on the Analytical Writing section of the GRE (taken after October 2002) is required and is an acceptable substitution for passing the Writing Proficiency Exam/ Graduation Writing Assessment Requirement (WPE/ GWAR).
6. Additional materials that provide evidence of academic performance may be requested (at a later date) after review of applicant's file.
7. Approval of the Graduate Coordinator.
8. DEADLINES FOR RECEIPT OF APPLICATIONS TO THE DEPARTMENT GRADUATE COORDINATOR: MAY $1^{\text {st }}$ FOR FALL ADMISSIONS AND NOVEMBER $1^{\text {st }}$ FOR SPRING ADMISSIONS.
If the appropriate coursework is taken in the correct sequence, the Qualifying Examination is passed with a grade of " B " and the Thesis or Directed Project requirements are completed in a timely manner, the student may be able to fulfill the requirements for the Master of Arts degree and graduate in two years (six semesters). This also requires the student to take six units every semester including two summer semesters. The Master of Arts degree in Family and Consumer Sciences offers four emphases: Consumer Affairs, Family and Consumer Sciences Education, Fashion Merchandising and Design, and Hospitality Foodservice and Hotel Management.

## Prerequisites

1. Students may be admitted to the program under conditional status for several reasons. Students are responsible for meeting all conditional requirements to be removed from conditional status prior to enrolling in 500/600 level courses.
A. Students who need to bring their GPA up to 3.0 must achieve a GPA of 3.0 within one year of admission. The Graduate Coordinator, in consultation with the student and faculty advisor, will identify courses after evaluation of transcripts. Courses taken to raise the GPA may not be included in the graduate program of study.
B. The student who needs to pass the Test of English as a Foreign Language (TOEFL) must do so within one year of admission.
C. The student who needs to complete prerequisite deficiencies must do so using a program of study developed with the specialization area faculty advisor and approved by the Graduate Coordinator.
2. Students from other disciplines will be required to complete prerequisites courses before enrolling in 500/600 level courses.
3. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If the prerequisite is outdated, the prerequisite(s) must be repeated or credit obtained by examination.
4. Students deficient in undergraduate preparation must take courses to remove these deficiencies at the discretion of faculty in the specified subject matter area and the Graduate Coordinator. Courses taken to remove deficiencies or raise the GPA may not be included in the graduate program of study.

## Retention

1. Maintain a 3.0 or better grade point average in all graduate work completed at CSULB and all graduate work transferred to meet graduate requirements.
2. Pass the Qualifying Examination at the end of the first year of coursework with a minimum grade of "B". A candidate who has failed will be allowed to take the Qualifying Examination a second time and the department Graduate Coordinator should be contacted for specific procedures for the second attempt.
3. Continued satisfactory progress toward the degree objective.

## Advancement to Candidacy

1. Classified status.
2. Satisfactory completion of the Writing Proficiency Examination (WPE).
3. Minimum of 3.0 overall GPA and a 3.0 GPA average in all units undertaken for the approval program of study.
4. Complete EDP 419; FCS 511, 563, 605, 655A, and 696.
5. Pass the Qualifying Examination with a grade of 'B' or better. This examination will test the ability of the graduate student to understand, analyze, integrate and apply information and concepts presented in the following courses: FCS 511, 563, 605, 655A, and 696. A faculty committee will prepare the questions, administer and grade the Qualifying Examination. Students do not register for a course to take the Qualifying Examination.
6. Approval of the Graduate Coordinator, and Associate Dean of the College of Health and Human Services.
7. Enrolled in the semester in which the Advancement to Candidacy takes place.

## Requirements

1. Completion of a minimum of 34 units of approved upper division and graduate courses with a minimum of 21 units in FCS.
2. Completion of EDP 419 and FCS 511, 563, 605, 655A, 696, 697, 692 or 698, and 9 units of Advisor approved courses in the area of specializations (Apparel Design and Merchandising or Consumer Affairs or Family and Consumer Sciences Education, Fashion Merchandising and Design, or Hospitality Foodservice and Hotel Management).
3. Completion of an oral presentation of the Thesis or Directed Project report.

## Master of Science in Nutritional Science (code FCS_MS01)

The Master of Science Degree in Nutritional Science offers 3 emphases: Clinical/Community Nutrition, Food Science, and Foodservice Systems Management. These provide an opportunity for students to:

1. Specialize in nutrition therapy/community nutrition, food science or hospitality foodservice and hotel management;
2. Complete a master's degree and the academic requirements to qualify for membership in the American Dietetic Association
concurrently and become eligible to apply to the Approved Dietetic Internship;
3. Increase competence in food and nutrition subject matter in preparation for college teaching, research, graduate study beyond the master's degree and administrative positions in public and private agencies.

## Admission Criteria

Prospective applicants must comply with University requirements for admission to graduate studies as outlined in the CSULB catalog. Students must concurrently submit applications to the University Admissions and Records Office and the Department of Family and Consumer Sciences.

Admission to the Master of Science in Nutritional Science is dependent upon approval by the Graduate Coordinator. The applicant must submit the following materials to the Graduate Coordinator in the Department of Family and Consumer Sciences.

1. A copy of the completed application submitted to the CSULB Office of Enrollment Services.
2. Official transcripts of all undergraduate course work.
3. Three letters of recommendation with at least two from instructors who have direct knowledge of the applicant's scholastic ability and professional qualifications.
4. A bachelor's degree with an undergraduate overall GPA of 3.0 and a GPA of 3.0 on the last 60 undergraduate units attempted.
5. An official copy of the Graduate Record Examination (GRE) taken within the last 5 years. A minimum score of 900 on the Verbal and Quantitative sections and a minimum score of 4 on the Analytical Writing section of the general GRE (taken after October 2002).
6. THE DEADLINES FOR RECEIPT OF APPLICATIONS TO THE DEPARTMENT GRADUATE COORDINATOR ARE MAY $1^{\text {ST }}$ FOR FALL ADMISSIONS AND NOVEMBER $1^{\text {ST }}$ FOR SPRING ADMISSIONS.

## Prerequisites

1. Students may be admitted to the program under conditional status for several reasons. Students are responsible for meeting all conditional requirements to be removed from conditional status prior to enrolling in 500/600 level courses.
A. Students who need to bring their GPA up to 3.0 must achieve a GPA of 3.0 within one year of admission. The Graduate Coordinator, in consultation with the student and faculty advisor, will identify courses after evaluation of transcripts. Courses taken to raise the GPA may not be included in the graduate program of study.
B. The student who needs to fulfill the Graduation Writing Assessment Requirement (GWAR) must do so within one year of admission and must attempt to satisfy the GWAR the first semester of enrollment.
C. The student who needs to pass the Test of English as a Foreign Language (TOEFL) must do so within one year of admission.
D. The student who needs to complete prerequisite deficiencies must do so using a program of study developed with the specialization area faculty advisor and approved by the Graduate Coordinator.
2. Students from other disciplines will be required to complete prerequisite courses before enrolling in 500/600 level courses.
3. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit obtained by written examination. Specifically, basic biological science courses and foundation nutrition and food science courses are evaluated for currency. The department administers a proficiency examination covering the content of NUTR 331A and FSCI 332 courses for students in all emphases who have not taken these courses or their equivalents within the past five years. In addition, NUTR 331B course content will be included in the proficiency examination for students in the Nutrition Therapy/Community Nutrition emphasis. Any student failing to pass the proficiency examination with a grade of " $B$ " or better must take the appropriate course for credit.
4. Entering graduate students will meet with the Graduate Coordinator to prepare a tentative degree program. In order to enroll in any graduate course, the student must complete all prerequisites and deficiencies and must obtain approval from the Graduate Coordinator.

## Advancement to Candidacy

1. Satisfy the general University requirements for Advancement to Candidacy.
2. Complete 9 units of graduate courses, including FCS 696.
3. Fulfill the Graduation Writing Assessment Requirement (GWAR).
4. Maintain a 3.0 GPA for all course work attempted as a graduate student.
5. Complete a Program of Study in consultation with a faculty advisor.
6. Approval by the Graduate Coordinator of Family and Consumer Sciences and the Associate Dean of the College of Health and Human Services.

## Requirements

1. Completion of a minimum of 34-39 units depending on concurrent completion of a dietetic internship.
2. An advanced statistics course: EDP 519 or H/SC 503 or KIN 590 or BIOL 563 or BIOL 565 or a course approved by the faculty advisor.
3 At least 18 units of 500/600 level courses in Family and Consumer Sciences.
A. Nutrition Therapy with Dietetic Internship (39) units: BIOL 342, FCS 530A, 530B, 531, 562, 591A, 591B, 696, 697, 692 or 698, and advisor approved specialization courses.
B. Nutrition Therapy without Dietetic Internship (34 units): BIOL 543, FCS 530A, 530B, 562, 655A, 696, 697, 692 or 698, and advisor approved specialization courses.
C. Community Nutrition with Dietetic Internship ( 39 units): HSC 500, FCS 530A, 531, 562, 563, 591A, 591B, $636,696,697,692$ or 698 , and advisor approved specialization courses.
D. Community Nutrition without Dietetic Internship (34 units): HSC 500, FCS 530A, 531, 562, 563, 636, 696, 697, 692 or 698, and advisor approved specialization courses.
E. Food Science (34 units): FCS 530A, 532, 533, 535, 564, 592, 597, 696, 697, 698, and advisor approved specialization courses.
F. Hospitality Foodservice and Hotel Management (34 units): FCS $573,574,597,655 A, 696,697,692$ or 698, plus 9 units of advisor approved specialization courses.
3. An overall GPA of 3.0 or better.
4. A written thesis or a Directed Project.
5. Oral presentation of the thesis or Directed Project report.

## American Dietetic Association (ADA) Accredited Dietetic Internship (DI)

The Department of Family and Consumer Sciences offers a combined Master of Science in Nutritional Science and DI supervised practice. This experience fulfills the registration eligibility requirements of the ADA to become a Registered Dietitian. Upon successful completion of the DI, the student will be eligible to write the Registration Examination for Dietitians.

The DI requires 1,093 hours total, with 928 hours of practice divided into four emphases: nutrition therapy, foodservice systems management, community and business/ entrepreneurial nutrition. The Seminar in Dietetic Practice constitutes the remaining 165 hours of the DI. The supervised practice is conducted off campus at a variety of excellent facilities. Opportunities exist in acute and long-term health care sites, as well as in teaching, research, community and governmental agencies. Students will receive training in general dietetics with experiences that expose them to various specialty areas.

## Admission Requirements

1. Completion of the Didactic Program in Dietetics as stipulated by ADA with an original verification statement from a Didactic Director;
2. Earned baccalaureate degree;
3. GPA 3.0/4.0 scale required on the last 60 units of courses completed;
4. Related volunteer or work experience in the United States;
5. Graduate standing in the CSULB Master of Science, Nutritional Science program;
6. Application materials to Dietetic Internship Director by February $1^{\text {st }}$ including three letters of recommendation, formal ADA application, a \$45 application fee, and copies of all college transcripts; and
7. Personal interview with Program Director and review committee.

## Program Requirements

Upon satisfactory completion of the Supervised Practice in Dietetics: FCS 591A, the Seminar in Dietetic Practice: FCS 591B, and completion of two of the three core graduate courses, FCS 531, 533, 562 or equivalent with a grade of "A" or "B", the student will be eligible to take the Registered Dietitian (R.D.) exam sponsored by the American Dietetic Association.

The 6 units of required graduate courses and a total of 2 units of FCS 591B are applicable toward the M.S. degree in Nutritional Science. Completion of the M.S. degree is not a requirement for completion of the Dietetic Internship. Students should contact the Dietetic Internship Director for complete details on this program at www.csulb.edu/~gcfrank.

Career opportunities include: clinical dietitian; consultant; entrepreneur; community nutritionist; foodservice manager in hospitals, schools, universities, airlines, businesses; manager in restaurant, hotel, or lodging industries; researcher in the medical, food or nutrition industry, and government inspector in the food industry.

## Family and Consumer Sciences Courses (FCS)

## UPPER DIVISION

## 492G. Internship in Gerontology (3)

Prerequisites: Student must be a Gerontology Certificate candidate; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of the Gerontology program director; and GERN 400I, ANTH 454, PSY 365 or HDEV 357I. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. Same as GERN 492G. (Seminar 3 hours)

## GRADUATE LEVEL

## 502. Child and Family Law (3)

Prerequisites: CDFS 3121 and upper division standing.
Establishment, conduct, and termination of marital and non-marital family relationships, including the rights and duties of the parties involved. Topics include marital disillusionment, child custody issues, property rights, domestic violence, adoption, support, genetic testing, and new trends in family law.
Letter grade only (A-F). (Lecture-discussion 3 hours.)

## 511. Family Theories (3)

Prerequisite: CDFS 412 or 413 or consent of instructor.
Theoretical approaches to the study of the family; analysis of the process of interaction between the individual, the family and society with emphasis on current issues.
(Seminar 3 hours.)

## 515. Perspectives in Human Development (3)

Prerequisite: CDFS 411 or consent of instructor.
Theory, trends and research toward maximum development of human potential as it applies to children in the family and community.
Letter grade only (A-F). (Seminar 3 hours.)

## 520. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Letter grade only (A-F). Same course as GERN 520. (Lecturediscussion 3 hours.)

## 529. Consumer Protection (3)

Prerequisites: Upper Division course in consumer affairs or consent of instructor.
Concepts of consumer protection with analysis of a myriad of resources available for individuals and families with consumer problems.
Letter grade only (A-F). (Seminar 3 hours.)

530A. Carbohydrates, Lipids and Proteins (3)
Prerequisites: NUTR 436, 436L, BIOL 260.
Nutritional, metabolic and clinical aspects of carbohydrates, lipids and proteins. Current knowledge of interactions between macronutrients and assessment of needs.
Letter grade only (A-F). (Seminar 3 hours.)

## 530B. Vitamins and Minerals (3)

Prerequisites: NUTR 436, 436L, BIOL 260.
Nutritional, metabolic and clinical aspects of vitamins and minerals. Current knowledge of interactions between micro- and macro-nutrients. Principles of nutritional status assessment and determination of needs.
Letter grade only (A-F). (Seminar 3 hours.)

## 531. Advanced Community Nutrition (3)

Prerequisites: NUTR 436 and 436L or FCS 562; NUTR 461.
Program planning and evaluation with emphasis on major nutritionrelated public health problems among target populations. Protocol development, collection and analysis of data. Verbal and written communications.
Letter grade only (A-F). (Lecture-discussion 3 hours.)

## 532. Food Analysis (3)

Prerequisites: CHEM. 327, FSCI 332 or equivalent.
Application of scientific methods of food analysis. Consideration of manner in which such variables as ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems.
Letter grade only (A-F). Course fee may be required. (Seminar 2 hours, Laboratory 3 hours.)

## 533. Recent Advances in Food Science (3)

Prerequisites: FSCI 432 or consent of instructor.
New developments in food processing, techniques of food preservation and, chemical additives. Food and water sanitation. Methods of standardization, preservation, and evaluation of quality. Retention of nutritive value, flavor, appearance, and safety of foods.
Letter grade only (A-F). (Seminar 3 hours.)

## 535. Food Processing, Preservation and Packaging (3)

Prerequisites: FSCI 332 or consent of instructor.
Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutrition. Evaluation of chemical additives. Microbiological aspects of food safety.
(Lecture-discussion 2 hours, Laboratory 3 hours.)

## 550. Cultural Bases of Textile and Apparel Design (3)

Prerequisites: FMD 353, 450, 456, 457 or equivalents or consent of instructor.
Factors influencing design and techniques of textile and apparel production in societies that create and use them. Symbolism of indigenous and adapted textile and clothing designs as a communicative device for expressing social and cultural values.
Letter grade only (A-F). May be repeated to a maximum of 6 units with assignments of increasing levels of difficulty. (Seminar 3 hours.)

## 559. Dress and Interpersonal Behavior (3)

Prerequisites: Admission to the Fashion Merchandising and Design emphasis in the Family and Consumer Sciences graduate program or consent of instructor.
Theories and methods of studying dress and interpersonal behavior.
Letter grade only (A-F). (Seminar 3 hours.)

## 561. Curriculum Development in Family and Consumer

 Sciences (3)Prerequisite: Field experience in Home Economics, Family and Consumer Sciences or a related area.
Current philosophies and basic principles in the analysis and organization of curricular programs and materials.
Letter grade only (A-F). (Seminar 3 hours.)

## 562. Contemporary Issues in Nutrition (3)

Prerequisite: NUTR 436 or consent of instructor.
Analysis of recent developments and current research in human nutrition. Topics include: nutrition through the life cycle; diet and dental health, athletic performance, human behavior, obesity, cancer; vegetarianism; practical application of scientific knowledge to diet management.
Letter grade only (A-F). (Seminar 3 hours.)
563. Evaluation in Family and Consumer Sciences and Gerontology (3)
Prerequisites: Upper division or graduate course in statistics; FCS 696 (may be taken concurrently) or equivalent.
Principles, design, and methods of program evaluation for use by Family and Consumer Sciences and Gerontology professionals. Selection and development of instrumentation for data collection and interpretation and methods of reporting.
Letter grade only (A-F). Same course as GERN 563. (Seminar 3 hours).

## 564. Sensory Analysis of Foods (3)

Prerequisites: FSCI 332, BIOL 260 or equivalent statistics; consent of instructor.
Principles and methods of analysis of sensory attributes.
Applications, advantages and limitations of sensory methods using
trained judges and consumer panels. Computer use of statistical data analysis and plotting. Statistical analysis, data interpretation and comparison with previous literature.
Course fee may be required. (Discussion 2 hours, Laboratory 3 hours.)

## 566. Biochemical and Hormonal Adaptations to Physical Activity (3)

Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration.
Study of the biochemical and hormonal changes that occur as a result of acute and chronic physical activity. Emphasis will be placed on the application of concepts to the development of exercise training programs.
Letter grade only (A-F). Same course as KIN 566. (Seminar 3 hours.)

## 573. Current Topics in Hospitality Foodservice and Hotel Management (3) <br> Prerequisite: Graduate standing.

A review and evaluation of recent developments and current issues in hospitality foodservice and hotel management. Topics related to operations management, customer service, human resource management, and strategic planning in the foodservice and lodging industries are examined.
Letter grade only (A-F). (Seminar, 3 hours.)

## 574. Cost Control in Hospitality FoodService and Hotel

 Management (3)Prerequisites: HFHM 375 or consent of instructor.
Financial management of food, labor, supplies, and other operational costs; procedures for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; inventory and security management; computer applications; and analysis of financial reports in hospitality foodservice and hotel industry.
Course fee may be required. (Lecture - discussion 3 hours.)

## 577. Foodservice Administration (3)

Prerequisites: HFHM 375 or consent of instructor, senior standing.
Principles of organization and administration in commercial and non-commercial foodservice operations are explored. Includes food purchasing, receiving, storage, inventory control, marketing, organizational management, human resource management, productivity, financial management, and quality management as applied to the foodservice industry. Fieldtrips required.
Letter grade only (A-F). (Discussion 3 hours.)
591A. Professional Practicum in Dietetics (11)
Prerequisite: Admission in the American dietetic Association Dietetic Internship.
Supervised practicum at contracted facilities to meet performance standards and qualify for the national registration examination. Credit/No Credit grading only. 11 units for each of 2 consecutive semesters.

## 591B. Seminar in Dietetic Practice (1)

Concurrent enrollment in FCS 591A.
Oral and written presentations oral and written presentations of annotated bibliographies and a clinical case study, reports of professional meetings, examinations and field trips.
Letter grade only (A-F). 1 unit for each of 2 consecutive semesters. (Seminar 1 hour)

## 592. Internship in Family and Consumer Sciences/ Gerontology (3)

Prerequisites: Graduate standing and consent of instructor.
Field experience in which student assumes a self directed responsible role in an agency, business or other community setting.
May be repeated to a maximum of 6units. Same course as GERN 592. (Seminar 3 hours.)

## 597. Independent Study (1-3)

Prerequisites: a 400-level course in any of the Family and Consumer Sciences disciplines.
Varied learning activities utilized to achieve competency related to family and consumer sciences not offered in regular course. Written report required.
(Projects)
605. Seminar in Administration of Family and Consumer Sciences/Gerontology Programs (3)
Prerequisites: FCS 696 or GERN 696 or consent of instructor.
Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Decisionmaking, organizational structures and evaluation concepts included. Same course as GERN 600. (Seminar 3 hours.)

## 615A. Seminar in Child Development (3)

Prerequisites: FCS 511 or 515 , 696 or consent of instructor.
Area of study will be announced in the Schedule of Classes. Letter grade only (A-F). (Seminar 3 hours.)

## 635. Seminar in Food Science, Nutrition and Foodservice

 Systems Management (2)Prerequisite: Graduate standing.
Presentation and description of advanced work in special fields of food science, nutrition therapy, foodservice systems management. Letter grade only (A-F). (Seminar 2 hours.)
636. Nutrition and the Media (3)

Prerequisites: Graduate standing, NUTR 331A or equivalent.
Basic skills for analyzing and communicating reliable nutrition messages for print and visual media; translating evidenced-based research into consumer messages.
Letter grade only (A-F). (Lecture-activity 3 hours.)

655A. Literature Review and Research in Family and Consumer Sciences (3)
Prerequisites. ED P 419.
Critical analyses of the current professional literature, theory, practice and research. The research process including conceptualization of the problem, literature search and review. The legal and ethical aspects of research are stressed.
Letter grade only (A-F). (Seminar 3 hours)
655B. Apparel Product Development (3)
Prerequisites: ED P 419, FCS 655A and 696.
An introduction to the research and strategies needed to develop apparel products and services for culturally diverse consumer markets.
(Seminar 3 hours.)

## 692. Directed Project (1-4)

Prerequisites: FCS 697.
Will acquire experiential skills under the guidance of a faculty advisor and supervisor/ preceptor at an approved project site. Will identify problems, design and assess a project or conduct research. Results will be presented in a thesis-style report.
Letter grade only (A-F)

## 696. Research Methods (3)

Prerequisite: Upper-division course in statistics.
Methodological approaches to contemporary research issues in Family and Consumer Sciences. Focuses on the design, development, and implementation of a formal research-designed project.
Letter grade only (A-F). Same course as GERN 696. (Seminar 3 hours).

## 697. Directed Research (3)

Prerequisites: Advancement to candidacy.
Student works under direct faculty supervision to complete a proposal for the thesis or directed project (thesis).
Letter grade only (A-F).

## 698. Thesis (1-4)

Prerequisites: FCS 697.
Planning, preparation and completion of a thesis related to the family and consumer sciences field.
Letter grade only (A-F).

# FAMILY AND CONSUMER SCIENCES EDUCATION <br> College of Health and Human Services <br> Department of Family and Consumer Sciences 

## Department Chair

M. Sue Stanley

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## Website

www.csulb.edu/depts/fcs

## Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh
Graduate Advisors
Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in six option areas of study

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Merchandising
- Textiles and Clothing

Requirements for all majors include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is first accepted by the University.

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

## Family and Consumer Sciences Education

A Bachelor of Arts degree in Family and Consumer Sciences, Option in Family and Consumer Sciences Education prepares students for careers in teaching youth and adults in various educational settings, as well as for positions in business, industry and government. Courses in the program focus on enhancing the quality of life for diverse individuals and families through assignments and activities that promote solutions to problems encountered in daily living. The Option in Family and Consumer Sciences Edcucation meets the subject matter requirement for the Preliminary Single Subject Credential in Home Economics

Students who earn a Home Economics Single Subject Teaching Credential (code 140) will be prepared to teach in middle, junior, and senior high schools, and in adult or career and technical education programs and community colleges. Career opportunities also include positions in cooperative extension, government, and community service agencies; and education program specialist positions in business, industry, and government.

In addition to meeting the subject matter competence requirement for the Preliminary Single Subject Credential in Home Economics, prospective Home Economics teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb. edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Family and Consumer Sciences Credential Advisor early to plan their program.

The Option in Family and Consumer Sciences Education is being revised to meet new state standards for subject matter competence for the Home Economics credential. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Option in Family and Consumer Sciences Education (code FCS_BA02) ( 120 units)

CHEM 100; ECON 100 and 101 or 300; ENGL 100 and 101 or 300 or 317 ; PSY 100; SOC 100 or ANTH 120; COMM 110; HSC 411B; EDSS 300H; CAFF 223, 226, 321, 322; CDFS 111, 312I, 314; FCSE 296, 299, 387, 488, 492D, 499; FMD 154, 251, 253; NUTR 132; HFHM 173, 235, 275; plus 12 units of one of the following concentrations: Child Development and Education Occupations CDFS 214, 414, 416A, 416B; Fashion Design, Manufacturing and Merchandising FMD 155, 351, 355, 457; Foodservice and Hospitality HFHM 270, 375, 474, 477.

Candidates for the Home Economics Single Subject Credential must take professional education requirements.

## Family and Consumer Sciences Education Courses (FCSE)

296. Applied Arts in Family and Consumer Sciences

Applied arts in communicating design concepts for Family and Consumer Sciences professions.
(Activity 3 hours.)
299. Introduction to Family and Consumer Sciences (1)

Must be taken during first semester as Family and Consumer Sciences or Dietetics and Food Administration major. Provides a general overview of Family and Consumer Sciences as a discipline of study and a profession. Examines historical and philosophical perspectives and considers issues, trends, and career opportunities within each option in the department. Letter grade only (A-F). (Lecture-Discussion 1 hour.)

## 387. Consumer Technology (3)

Prerequisites: FCSE 299 and upper division standing.
The impact of consumer technology on the quality of life of individuals families, and professional environments. Computer and professional applications for consumers in family resource and household management. Analysis of social, psychological, and economic impacts.
Discussion 2 hours, Laboratory 3 hours.)
486. Instructional Strategies for Family and Consumer Sciences Professionals (3)
Prerequisite: Senior Standing.
Must be taken in one of the last two semesters prior to graduation. Utilize the principles and concepts of each area of Family and Consumer Sciences in developing and implementing a variety of learning experiences appropriate for providing instruction to individuals or groups in informal education, business, government agencies, or other community settings.
Letter grade only (A-F). (Lecture-Discussion 2 hours, Laboratory 3 hours.)
*488. Developing Occupational Programs in Family and Consumer Sciences (3)
Prerequisite: EDSS 300H or teaching experience or consent of instructor.
Utilizing knowledge and skills derived from the field of family and consumer sciences as a basis for offering occupational opportunities for youth and adults through planning programs in school and community.
(Lecture-discussion 3 hours)
*490. Special Topics (1-3)
Group investigation of selected topics. Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units. (Seminar 1-3 hours.)
A. European Fashion Study Tour
B. New York Fashion Study Tour
C. Los Angeles Fashion Study Tour

492D. Internship in Family and Consumer Sciences Education (3)
Prerequisites: Student must be a Family and Consumer Sciences Education major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a Family and Consumer Sciences Education faculty advisor. Each prerequisite course must be completed with a grade of " C " or better. A course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation. May be repeated for 6 units maximum.
(Seminar 3 hours.)
497. Directed Studies (1-3)

Prerequisites: Upper class standing, consent of instructor.
Independent study under the supervision of a faculty member. Exploration and experience in areas which are not a part of any regular course.
May be repeated to a maximum of 6 units.
499. Professionalism and Leadership in Family and Consumer Sciences (2)
Prerequisites: FCSE 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
Analysis of contemporary issues, public policies and future directions of family and consumer sciences as a discipline of study and as a profession with integrated specializations.
Letter grade only (A-F). (Lecture-Discussion 2 hours.)

# FASHION MERCHANDISING AND DESIGN 

College of Health and Human Services
Department of Family and Consumer Sciences

## Department Chair

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Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh
Graduate Advisors
Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in six option areas of study

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Merchandising
- Textiles and Clothing

Requirements for all major include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is first accepted by the University.

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

## Fashion Merchandising and Design

A B.A. in Family and Consumer Sciences: Fashion Merchandising or Textiles and Clothing enables students to pursue careers in the design, production and merchandising of textile and apparel products and to meet individual and family textile and apparel needs. Career opportunities include: buyer-retailing, manufacturer's representative, product designer-pattern maker, store operations manager, stylist-fashion director, textiles (testing and evaluation) specialist.

Course requirements for a B.A. in Family and Consumer Sciences: Fashion Merchandising or Textiles and Clothing are:

## Option in Fashion Merchandising (code FCS_BA04) (120 units)

ACCT 201; CHEM 100 or 111A; CAFF 321; ECON 100 and 101 or 300; HIST 131 or AH 111A; IS 233 or FCSE 387; MKTG 300; PSY 100; SOC 100 or 142 or ANTH 120; FCSE 296 or ART 149, 299, 486 and 499; FMD 154 or 252, 155, 251, 253, 258, 351, 353, 355, 450, 455, 456, 457, 492E or FCSE 497; plus 9 units of advisor approved electives.

Each course on the student's program planner must be completed with a grade of "C" or better. In addition, a course which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a " $C$ " may proceed with other courses with approval of the Area Coordinator.

## Minor in Fashion Merchandising (code FCS_UM02)

Eighteen units including FMD 155, 252, 455 or 457; 9 units, including at least 6 upper-division units, selected from FMD 251, 253, 351, 353, 355, 492E as approved by a Fashion Merchandising and Design faculty advisor. It is the student's responsibility to adhere to all prerequisites listed below. Several prerequisites fulfill general education requirements.

1. FMD 351, 355; MKTG 300, senior standing or, consent of instructor are prerequisites for FMD 455.
2. ECON 100 and 101 or 300 (fulfills G.E. Category D2b) and FMD 353, senior standing, or consent of instructor are prerequisites for FMD 457.
3. FMD 155, 251 (fulfills G.E. Category E), and 154 or 252 are prerequisites for FMD 351.
4. ELM passage, ACCT 201, FMD 155, and IS 233 or FCSE 387, or consent of instructor are prerequisites for FMD 355.
5. FMD 455 or 457 is a prerequisite for FMD 492E.

The Minor in Fashion Merchandising is available to any non-Fashion Merchandising major.

## Option in Textiles and Clothing (code FCS_BA05) (120 units)

CHEM 100 or 111A; ECON 100 and 101 or 300; HIST 131 or AH 111A; SOC 100 or 142 or ANTH 120; CAFF 321; FCSE 296 or ART 149, 299, 387, 486, and 499; FMD 154, 155, 251, 253, 256, 257, 258, 352, 353, 354, 357, 450, 452, 453 or $458,454,456,457,492 \mathrm{M}$, or FCSE 497.

Each course on the student's program planner must be completed with a grade of " C " or better. In addition, a course in which a grade lower than " C " is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.

## Minor in Textiles (code FCS_UM03)

Eighteen units including FMD 155, 253, 353, 453, and 457; 3 additional units selected from FMD 450 or 492E. It is the student's responsibility to adhere to all prerequisites listed below. It should be noted that several prerequisites fulfill general education requirements.

1. FMD 155, 253, and CHEM 100 or 111A (fulfills G.E. Category B1b) are prerequisites for FMD 353.
2. FMD 353 is a prerequisite for FMD 453.
3. ECON 100 and 101 or ECON 300 (fulfills G.E. Category D2b) and FMD 353, senior standing or consent of instructor are prerequisites for FMD 457.
4. Completion of GE Foundation courses, and ANTH 120 or SOC 100 or 142 (fulfills G.E. Category D2b) are prerequisites for FMD 450 (fulfills G.E. Category D2b and HD).
5. FMD 455 or 457 is a prerequisite for FMD 492E. The Minor in Textiles is available to any non-Textiles and Clothing major.

## Fashion Merchandising and Design Courses (FMD)

## LOWER DIVISION

## 154. Fundamentals of Apparel Production (3)

Analysis of the interrelationship of garment design and apparel construction. Application of theories and methods of apparel design to garment construction. Letter grade only (A-F).
Not open for credit to students with credit in FCS 254. (Lecturediscussion 2 hours, Laboratory 3 hours.) (CAN FCS 10)

## 155. Introduction to the Fashion Industry (3)

Organization, structure and interrelationship of industries and services that comprise the business of fashion: terminology, designers, trade organizations and publications. Professional opportunities explored.
Letter grade only (A-F). (Lecture-discussion 3 hours.)

## 251. Professional and Personal Apparel Selection (3)

Prerequisites: Completion of G.E. Foundation courses
Apparel selection for professional and personal needs based on design, culture and fashion. Wardrobe analysis and coordination consumer clothing guidelines.
(Lecture-discussion 3 hours.) (CAN FCS 20)

## 252. Analysis, Evaluation and Comparison of Ready-to-

 Wear (3)Analysis of the quality of materials, design and construction in ready-to-wear garments and accessories; comparison of processes involved in manufacturing, concepts of sizing, principles of fit; aids in buying and selling.
(Lecture-discussion 3 hours.)
253. Introductory Textiles (3)

A consumer-oriented approach to textile selection, use, and care. Provides a basis for a logical, consistent rationale in choosing apparel and interior textiles. Explores careers within the international textile industry.
Letter grade only (A-F). (Lecture-discussion 3 hours.)
256. Intermediate Apparel Production (3)

Prerequisites: FMD 154, 155 or 251.
Continuation of construction techniques used in apparel production with concentration on current fabrics and techniques used in contemporary ready-to-wear.
(2 hours discussion, 3 hours laboratory).
257. Introduction to Apparel Flat Pattern (3)

Prerequisites: FMD 154, 155 or 251.
Introduction to the design concept as it applies to flat pattern manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)
258. Fashion Merchandising and Design Practicum (3)

Prerequisite: FMD 155 and consent of the instructor.
Structured fashion retail work/learning experience designed to
develop competencies in retail management or related fields.
Students must obtain fashion retail sales position by first class period.
Letter grade only (A-F). (Lecture-activity 3 hours.)

## UPPER DIVISION

351. Fashion Promotion and Sales (3)

Prerequisites: FMD 155, 251, 252 or 154.
Concepts, practices and procedures related to fashion promotion. Includes planning, directing and evaluating promotion activities such as visual merchandising, special events, publicity, and personal and non-personal selling.
(Discussion 3 hours.)
352. Computerized Apparel Flat Pattern (3)

Prerequisites: FMD 256, 257 and FCSE 387.
Use of computer aided design software for apparel pattern development.
Letter grade only (A-F). (Laboratory 6 hours.)
353. Intermediate Textiles (3)

Prerequisites: CHEM 100 or 111A; FMD 155 and 253.
Interrelationship of fiber, yarn, structure, fabric geometry and finishing treatments to the textile's appearance, comfort, durability and maintenance.
Letter grade only (A-F). (Lecture-discussion 2 hours, Laboratory 3 hours.)
354. Analysis of Apparel Design and Tailoring (3)

Prerequisites: FMD 155, 251, 256 and 257.
Analysis of traditional and contemporary processes in the design and production of tailored apparel. Application of apparel design and production process for couture, ready-to-wear, and individually produced garments.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)

## 355. Fashion Merchandising Planning and Control (3)

Prerequisites: ELM Passage, ACCT 201, FMD 155, FCSE 387, or consent of instructor.

Concepts, practices and procedures as well as calculations and computer applications as they relate to apparel retail profit. Includes inventory methods, operating statements and purchase planning procedures.
(Discussion 3 hours.)

## 357. Advanced Apparel Flat Pattern (3)

Prerequisites: ELM passage, FMD 155, 251, 253, 256 and 257.
Exploration of the total design concept as it applies to pattern manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)

## 450. Cultural Perspectives of Dress (3)

Prerequisites: Completion of G.E. Foundation courses; ANTH 120 or SOC 100 or 142 and upper division standing or consent of instructor.
Factors influencing design of textiles and apparel, techniques of textile and apparel production, and human behavior in the selection of dress in societies and cultural groups. Emphasis on symbolism of textiles and clothing designs as a communicative device for expressing social and cultural values. Impact of other cultures on western dress and impact of western dress on other apparel systems. (Seminar 3 hours.)

## *452. Apparel Draping (3)

Prerequisites: FMD 353, 354 and 357, or consent of instructor. Exploration of the total design concept as it applies to fabric manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)
*453. Quality Control in Fashion Merchandising and Design (3)
Prerequisites: FMD 353.
The use of target market characteristics, textile testing and product development to assure quality in products.
Letter grade only (A-F). (Discussion 1 hour, Activity 4 hours.)
*454. Experimental Apparel Design (3)
Prerequisites: FMD 352, 452 and 453.
Exploration of clothing design and production through the experimental process. Individual investigation of the creative design process; evaluation of equipment; experiences with a variety of fabrics and techniques.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)
*455. Global Perspectives in Fashion Merchandising (3)
Prerequisites: FMD 351, 355, and MKTG 300, senior standing or consent of instructor.
Application of merchandising concepts for the budgeting, buying, promoting, and selling of fashion goods and apparel in global retail organizations.
Letter grade only (A-F). (Discussion 3 hours.)
456. Historic Perspectives of Fashion (3)

Prerequisites: FMD 251, 253, HIST 131 or AH 115B.
Social, political, economic, geographic and religious forces that affect styles of fashion from antiquity to the present day. Emphasis is on the relationship of historic styles to current fashion. Primary focus is on the fashion influences of the western world.
Letter grade only (A-F). (Seminar 3 hours.)
457. International Textiles and Apparel (3)

Prerequisites: ECON 100 and 101 or 300, FMD 353, senior standing, or consent of instructor.
International, political and economic issues relevant to the textile and apparel industries. Emphasis on understanding international aspects of the textile and apparel industries in the United States.
(Seminar 3 hours.)

## *458. Fashion Product Development (3)

Prerequisites: FMD 353, senior standing, or consent of instructor.
Process of designing and engineering fashion products to be serviceable, producible, salable and profitable for various consumer market segments.
(Discussion 3 hours.)

## 492E. Internship in Fashion Merchandising (3)

Prerequisites: Student must be a major in Family and Consumer Sciences in the option of Fashion Merchandising; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; have approval of a faculty advisor in Fashion Merchandising and Design; consent of the instructor; and FMD 455 or 457 . Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.

Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours.)

## 492M. Internship in Apparel Design (3)

Prerequisites: Student must be a major in Family and Consumer Sciences in the option of Textiles and Clothing; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; have approval of a faculty advisor in Fashion Merchandising and Design; have consent of the instructor; and FMD 452 or 454. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.

May be repeated for 6 units maximum. Letter grade only (A-F). (Seminar 3 hours.)

## FILM AND ELECTRONIC ARTS

College of the Arts

Department Chair<br>Craig R. Smith<br>Department Office<br>University Telecommunications Center (UTC), Room 104<br>Telephone<br>(562) 985-5404<br>Faculty<br>Professors<br>Sharyn Blumenthal, Micheal C. Pounds, Jose Sanchez-H., Craig R. Smith<br>\section*{Associate Professors}<br>Michael Berlin, Brian Alan Lane<br>Assistant Professors<br>Alan Jacobs, Rory Kelly<br>Administrative Coordinator<br>Donna Thomas<br>Instructional Support Technician<br>Steve Hubbert<br>Information Technology Consultant<br>Robert Rhyu

Film and Electronic Arts is an innovative program that emphasizes both theory and practice. Focusing upon the integration of media and the arts in our information society, as well as upon the impact of technology on our culture and the media themselves, the curriculum is designed to provide technical skills while developing a sound foundation in the arts and the humanities.

The faculty provides a diversity of expertise and interests which cross traditional media lines while integrating the traditional film, audio, and video production modes. Theory and aesthetics are taught as an integral part of the development of production skills. Part-time lecturers include a variety of highly-qualified Los Angeles area media professionals.

## Admission Under Impaction

To be eligible for admission to the major in Film and Electronic Arts, applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 60 units applicable toward a CSULB degree prior to the term for which the application is submitted. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average, with a minimum of 3.0.

## Admission Requirements

To be eligible for admission to the major in Film and Electronic Arts, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have a minimum grade point average of 3.0. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission for admission based on cumulative grade point average.

Transfer students must apply to the University during the initial filing periods for fall or spring semesters.

Currently enrolled students who meet the requirements listed above must submit an Admission to the UpperDivision Major form to the Film and Electronic Arts Department by February 1 for the fall semester or October 1 for the spring semester.

## Supplemental Screening Criteria

1. During the first semester as a declared major, students must complete FEA 399 with a grade of " B " or higher. Students receiving a "C" in FEA 399 are allowed to retake the course once for purposes only of admission into the major. The "C" grade will remain in effect and no credit will be gained by taking the course twice. It will allow the student, however, to have a second chance for admission into the major if he/she is able to obtain a "B" or higher on the second try. A student receiving a "D," "F," "WU," or "U" in FEA 399 the first time will no longer be eligible for admission to the major, but will be allowed to repeat/delete that grade per university policy.
2. Students must attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) by the end of the semester in which FEA 399 is completed.
Students who fail to meet either of the supplemental screening criteria may not continue in the major and may re-apply only once in accordance with University policy regarding impacted majors.

## Bachelor of Arts Film and Electronic Arts

Two B.A. degree options are offered by the department: one in Film and Electronic Media (code FEA_BA01) and one in Film and Video Production (code FEA_BA02). Students in both options must complete all requirements, pre-requisites, and electives in residence at the upper division level.

## Option in Film and Electronic Media (code FEA_BA01) (120 units)

51 units required for the major.
Students are admitted to this option by virtue of meeting the Admission Requirements and Supplemental Screening Criteria listed above.

## Requirements

1. Major screening course: FEA 399 with a "B" or better
2. Media Studies Core: FEA 300, 302, and 314
3. Media Practice Core (choose two courses from one of the following tracks for a total of 6 units):
A. Management: FEA 327, 373, 376, 420
B. Writing: FEA 303, 304, 404, 408
C. Production: FEA 307, 320, 337, 403
4. Culture, Media, and Politics (choose 3): FEA 310, 317, 318I, 380, 394, 412, 486I
5. International Media (choose 3): FEA 363, 364, 392A, 392B, 392C, 392D; only one of the following may be used to meet this requirement: FEA 454/ITAL 454, FEA 456/FREN 456, RUSS 428, SPAN 428
6. Electives: This requirement can be met with a sequence of elective courses in FEA. With prior advisor approval, certain non-FEA courses may be counted toward this requirement.
7. Senior Theory Course (choose 1): FEA 401, 402 or 430

## Option in Film and Video Production (code FEA_BA02) (120 units)

51 units required for the major.
Students meeting the requirements for admission to the major (completion of 56 units of college level course work including all GE Foundation requirements and at least 18 units of GE courses including Art 110 or AH 111B with a cumulative GPA that is still 3.0 or above) may apply for admission into the production option by presenting a portfolio to the department during the second semester of their sophomore year or after. Admission to the option will be in the Fall semester only. Portfolios will be comprised of 1) a statement of purpose, 2) a critical analysis of a film or television show, 3) a sample of creative work (either writing, visual art or a short film or video) and 4) two letters of recommendation. After a favorable evaluation or the portfolio, prospective students are interviewed by FEA faculty to determine whether or not they will be admitted. Although a transfer student may apply to the FEA production option prior to learning whether or not they have been admitted to the university, they cannot be accepted into the option until they have been officially admitted to the university. The Film and Electronic Arts Department is not involved in the university admissions process.

Students admitted to this option are required to maintain a minimum 3.0 GPA average in all major course work in order to retain their place in the option. There is no probation period for students who fall below this minimum GPA. Students admitted to the option are also required to abide by the rules and regulations as specified in the FEA Department's Policies and Procedures handbook, which is available for purchase at the University Bookstore.
Junior Year Requirements - take the following courses in the following sequence:

1. Fall Semester of Junior Year: FEA 399, 303, 309, 344, 415
2. Spring Semester of Junior Year: FEA 300 (may be taken prior to admission to the major); 302; 304; 328, 336
Senior Year Requirements:
3. Senior year students must select a two-semester track of specialization from the five available Tracks. (The

Narrative Production Track is subject to a competitive admissions process based on a script submitted in the spring semester of the junior year by the student seeking admission.)
A. Narrative Film Production:

Fall: FEA 340; Spring: FEA 342
B. Documentary Film Production:

Fall: FEA 380, 381; Spring: FEA 382
C. Cinematography:

Fall: FEA 341; Spring: FEA 343
D. Screenwriting:

Fall: FEA 404; Spring: FEA 404
E. Audio:

Fall: FEA 307; Spring: FEA 320
Students work collaboratively across tracks and with students in the Film and Electronic Media Option to produce films for end of the year showcases.
In addition to choosing a two-semester track of specialization, students in their senior year complete the following requirements:
4. Culture, Media, and Politics (Choose two. Students in the Documentary Track chose one, in addition to FEA 380 which is required in that track.): FEA 310, 317, 318I, 380, 394, 412, 486I
5. International Media (All students choose two.): FEA 363, 364, 392A, 392B, 392C, 392D
Only one of the following may be used to meet this requirement: FEA 454/ITAL 454 (Italian Cinema), FEA 456/FREN 456 (French Cinema), RUSS 428 (Russian Cinema), or SPAN 428 (Spanish Cinema)
Production Courses. (Choose two production electives or enroll in a second track of specialization to complete this requirement.)
6. Production Electives (single track majors choose 1): FEA 307, 314, 320, 327, 337, 381, 403, 404, 405, 408, 492
Note: Students in the Writing Track are encouraged to take FEA
403 and 405 to complete their production course requirements.

## Minor in Film and Electronic Arts (code FEA_UM01)

Total Units Required: 21 units.
Students are admitted to the minor after having completed a minimum of 30 units of college-level course work including all 12 units of General Education Foundation courses with a cumulative GPA of 3.0 or higher.

## Requirements

1. Complete FEA 399 with a "B" or better.
2. Complete FEA 300, 303, 310.
3. Complete 9 units of electives from FEA 302, 304, 307, $312,313,314,316,318,320,325,327,337,363,364$, 373, 376, 380, 381, 382, 392, 394, 412, 420, 430, 486I, 490.

Students should consult a departmental advisor regarding ways by which elective units can be grouped into specialized tracks. For example, a basic management skills set might include 327, 373, 376, and/or 420; a basic sound mixing skill set would include 307 and 320; a documentary track would include 380, 381, and 382. Program planners are available from departmental advisor.

## Courses (FEA)

## UPPER DIVISION

## 300. History of Media (3)

Prerequisites: Completion of General Education Foundation requirements.
Development of film and electronic media in United States. Letter grade only (A-F).

## 302. Critical Study of Film (3)

Prerequisites: Major status, FEA 399 with "B" or better, or consent of instructor.

Introduction to classical and critical theories of film analysis including Realism, Formalism, Classical Hollywood Cinema, Auteur Theory, Art Film, and Structuralism.
Letter grade only (A-F).

## 303. Film and Electronic Media Writing (3)

Prerequisites: Major status, FEA 399 with " B " or better and or consent of instructor.
Study of scripting and other writing skills unique to audio, video, and film.
Letter grade only (A-F). (Lec-Descussion 3 hrs.)

## 304. Writing the Short Script (3)

Prerequisites: Major status, FEA 399 with " $B$ " or better or consent of instructor.
Scriptwriting with emphasis on adaptation and dramatic fiction. Letter grade only (A-F).

## 305. Film History (3)

Prerequisites: Major status, FEA 399 with " B " or better or consent of instructor.
Historical development of motion picture.
Letter grade only (A-F).

## 307. Audio Production (3)

Prerequisites: Major status, FEA 399 with " $B$ " or better or consent of instructor.
Basic principles and techniques of audio production.
Letter grade only (A-F) (Act 4 hrs to be arr.)
309. Cinematography (3)

Prerequisite: Admission to Option in Film/Video Production. B asic principles of cinematography and lighting.
Letter grade only (A-F) (9 hours laboratory.)
310. Media, Ideology and Culture (3)

Prerequisites: Completion of General Education Foundation requirement.
Exploration of the ways media create, pattern, shape, reinforce and/or change culture. Variety of viewpoints, derived from contemporary critical and cultural studies, highlights relationship between culture and images.

## 312. Television Programming Symposium (3)

Discussion and analysis of creative problems in television industry, current local and network programs. Interviews with visiting executives, producers, directors, writers, performers and technicians.
May be repeated to a maximum of 6 units, only 3 units may be used as credit toward major.

## 313. New Technologies in Film and Electronic Media (3) Prerequisites: FEA 300. <br> Study of developing technologies in film and electronic media production, distribution, and exhibition. Focus on economic, social,

and policy issues raised by technological innovation and the impact of new technology on the industry.
Letter grade only (A-F).

## 314. Theatrical Film Symposium (3)

Lectures and discussions of creative problems in motion picture industry; current films; interviews with visiting producers, directors, writers, performers and technicians.
May be repeated to a maximum of 6 units, only 3 units may be used toward the major.

## 316. Mass Media and Popular Culture (3)

Prerequisite: Completion of General Education Foundation requirement.
Theory and functions of mass media in America. Enduring issues and unresolved problems of media. Impact of mass culture on a massmediated society.

## 317. Women in the History of U.S. Film (3)

History of women as they are represented, presented as images, or constructed in the development of U.S. film. Theory and analysis of film from a feminist perspective.
Same course as W/ST 316.

## 3181. Theory of Fiction and Film (3)

Prerequisites: Completion of the G.E. Foundation, one or more G.E. Explorations courses, and upper-division standing.
Examination of narrative methods and conventions of American and British fiction and methods and conventions of film; consideration of relationships between artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film.
Same course as ENGL 318I.

## 320. Sound Design (3)

Prerequisites: Major status.
Examination of the basic aesthetic and technical principles of sound design for film and video production.
Letter grade only (A-F).
325. Audio Activity (2)

Prerequisites: Major status, FEA 399 with "B" or better or consent of instructor.
Group and individual experience in audio production. Specific assignments determined in consultation with instructor.
Credit/No Credit grading only. May be repeated to a maximum of 4 units in different semesters. (80 Activity hours to be arranged.)
327. Production Management (3)

Prerequisites: Major status, FEA 399 with "B" or better or consent of instructor.
Examination of the step-by-step process of budgeting and scheduling feature length motion pictures. Students will learn methods and procedures of breaking down a script, analyzing production elements, preparing a production board, scheduling principal photography, and preparing a comprehensive budget.
Letter grade only (A-F) (Lecture 3 hours; activity hours to be arranged.)

## 328. Film and Video Lighting (3)

Prerequisites: FEA 309. Priority enrollment given to students in Film/ Video Production Option.
Examination of the basic aesthetic and technical principles of film and video lighting. Students will explore various creative lighting styles and techniques through lectures and practical exercises.
Letter grade only (A-F).

## 335. University Television Activity (2)

Prerequisites: Consent of instructor.
Experience in administration and production of video projects at the University Television facility.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (Activity hours to be arranged.)

## 336. Beginning Film/Video Production (3)

Prerequisite: Admission to Option in Film/Video Production.
Preparation for the advanced level of film and video production through research and exercises designed to develop essential filmmaking and video graphic skills.
Letter grade only (A-F). Course fee may be required. (Production laboratory 9 hours.)

## 337. Digital Arts Production (3)

Prerequisite: Major status or consent of instructor.
Techniques and concepts involved in production of visual effects, computer animation, and interactive media. Through screenings, fieldtrips and hands-on production, students explore art and science of digital graphics, 2D-compositing, and 3D-animation. Culminates in development of digital elements for student production.
Letter grade only (A-F) May be repeated to a maximum of 6 units in different semesters.

## 340. Advanced Film/Video Production (3)

Prerequisites: FEA 336 and approved enrollment in Advanced Narrative Production Track. Experience in group production of original films and videos.
Emphasis is on narrative short projects. Students are required to collaborate with advanced cinematography students in FEA 341.
Letter grade only (A-F). Course fee required. (Production laboratory 9 hours.)

## 341. Advanced Cinematography I (3)

Prerequisites: FEA 336 and approved enrollment in Advanced Cinematography Track.
Designed to further student's understanding of art and craft of cinematography, especially lighting, exposure, composition, lenses, film stocks, video formats, filters, telecine, and lab procedures. Students are required to shoot and crew on advanced narrative projects produced in FEA 340.
Letter grade only (A-F).

## 342. Advanced Film/Video Production II (3)

Prerequisites: FEA 340 and approved enrollment in Advanced Narrative Production Track.
Experience in post production and completion of original films and videos resulting in public exhibition. Emphasis is on film editing. Letter grade only (A-F). Course fee required. (Laboratory 9 hours.)

## 343. Advanced Cinematography II (3)

Prerequisites: FEA 341 and approved enrollment in Advanced Cinematography Track.
Designed to further student's understanding of art and craft of cinematography. Emphasis is on individual research into specific issues of film and video image making and production of short film and video projects in support of research.
Letter grade only (A-F).

## 344. Directing (3)

Prerequisite: Admission to the Option in Film/Video Production.
Theory and practical experience in directing of narrative film. Emphasis on directing actors in fictional work.
Letter grade only (A-F). (Activity hours to be arranged.)

## 346. The European Cinema of Communism, Fascism and Resistance (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division standing.
Focuses on European cinema of the twentieth century as a manifestation of totalitarian and ideological movements preceding, in-between and following the two world wars. The ensuing and ongoing resistance movements will also be examined.
Same course as HIST 346I, RGR 346 I.

## 355. Audio-Video-Film Activity (1)

Prerequisites: Major status, FEA 399 with " B " or better or consent of instructor.
Group and individual experience in areas of audio-video-film production, and broadcast education. Specific assignments determined in consultation with instructor.
Credit/No Credit grading only. May be repeated to a maximum of 2 units. (Activity hours to be arranged.)

## 363. International Electronic Media Systems (3)

Prerequisites: FEA 300 or consent of instructor.
Comparative analysis of internal and external electronic media systems with emphasis on their motives, origins, technologies, and programming. Consideration of political, economic, regulatory constraints, and potential impact of new technologies.
Letter grade only (A-F).
364. Global Electronic Media Communication (3)

Prerequisites: FEA 300 or consent of instructor.
Study of international electronic media systems targeted toward other nations with emphasis on their cultural, economic, and political influences. Focus on the impact of new technologies on cross border communication.
Letter grade only (A-F).

## 373. Electronic Media Programming (3)

Prerequisites: FEA 300 or consent of instructor.
Principles and practices of programming for electronic media networks, television and radio stations, and local cable systems. Analysis of relationship between programming, promotion, and profit.
Letter grade only (A-F).

## 376. Film and Electronic Media Sales and Promotion (3)

Prerequisites: Major status, FEA 399 with "B" or better or consent of instructor.
Study of marketing, promotion, and sales among film distributors, production companies, program suppliers, broadcast networks, cable systems, local radio, television, and cable operators. Theory and application of media research principles, promotion strategies. Development of selling skills.
Letter grade only (A-F).

## 380. Documentary History and Theory (3)

Prerequisites: FEA 300 and 302 or consent of instructor.
Critical study of history, methods, and aesthetics of documentary production. Focus on problems of representation, objectivity, and personal style.
Letter grade only (A-F).

## 381. Directing the Documentary (3)

Prerequisite: FEA 336, Corequisite: FEA 380.
Exploration of theory and practice of documentary filmmaking.
Emphasis on relationship between documentary and fiction film. Production requirement will include shooting and editing a 5-10 minute documentary film/video.
Letter grade only (A-F). (Laboratory 9 hours)

## 382. Digital Documentary Production I

Prerequisites: FEA 336 or consent of instructor.
Theory and practice researching, structuring, writing, directing and producing a comprehensive digital video documentary (to be completed in FEA 383) with equal emphasis on the interview and visual storytelling. Letter grade only (A-F). (9 laboratory hours)

## 383. Digital Documentary Production II (3)

Prerequisites: FEA 382 or consent of instructor.
Theory and practice producing and editing a comprehensive digital video documentary with special emphasis on narration, sound effects, and music. This will entail the completion through post-production of videos begun in FEA 382.
Letter grade only. (Laboratory 9 hours)

## 392. International Cinema (3)

Prerequisites: FEA 300 and 302, or consent of instructor. Variable topics explore domain of international cinema.
Topics announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## A. European Cinema 1930-1960

B. European Cinema 1960-1990
C. Latin American Cinema

## D. Japanese Cinema

E. Spanish Cinema (Same course as SPAN 428)
394. American Film Genres (3)

Prerequisites: FEA 300 and 302 or consent of instructor.
Historical and critical examination of Hollywood film genres. Places genre analysis and theory within sociocultural perspective. Genres include Western, film noir, science fiction/horror, detective/gangster, musical, war films, screwball comedy, and family melodrama.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters.

## 399. Media Aesthetics (3)

Prerequisite: Major status.
Study of aesthetic principles governing media productions. Emphasis on relationships between various art forms and development of critical vocabulary.
Students must achieve a grade of "B" or better in order to gain or maintain status as a major or minor. Letter grade only (A-F).

## 401./501. Film Critical Theory (3)

Prerequisites: FEA 300 and 302 or consent of instructor. Study of contemporary theoretical models of film analysis and evaluation. Topics include: Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Post colonialism, Queer Theory, and Post-modernism.
Letter grade only (A-F).

## 402. TV Critical Theory (3)

Prerequisites: FEA 300 and 310 or consent of instructor.
Examines television from aesthetic and textual perspectives. Including distinctive ways television produces meanings. Topics to be covered include semiotics, postmodernism, and feminism, as well as narrative, ideological, and psychoanalytic theories of criticism.
Letter grade only (A-F).

## 403. Diverse Media: Writing and Production (3)

Prerequisites: Major status or consent of instructor.
Advanced and workshop in professional writing and production of film, television, theatre, and diverse media. Working as a group, students develop, and exhibit creative works. Provides a professional production experience covering various genres and formats.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

## 404. Advanced Scriptwriting for Film and Electronic Media (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, or consent of instructor.
Writing dramatic and comedic screenplays and teleplays. Includes study of produced models with emphasis on the creative process. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 405./505. Comedy Writing (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, or consent of instructor.
Study of a variety of historical and contemporary models. Practice in the creation of print pieces; stand-up routines; scripts for television, film, and other media. Heavy focus on comedy as social, political, and technological criticism.
Letter grade only (A-F).

## 408./508. Writing the Screen Adaptation (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, for 508, approval of the MFA (Screenwriting) Coordinators or consent of instructor.
Writing script adaptations, with a study of adaptation theory and successful adaptational models.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Same course as Engl 408.
412./512. American Television and African Americans (3)

Prerequisites: FEA 300 and 310 or consent of instructor.
Comparative examination of the depiction of African Americans in American network and syndicated television in a variety of types of programs.
Letter grade only (A-F).

## 415. Electronic Editing (3)

Prerequisites: Admission to the Option in Film/Video Production or consent of instructor.
Principles of non-linear editing in post-production.
Letter grade only (A-F).
420. Electronic Media: Labor and Management (3)

Prerequisites: Major status, FEA 399 with " $B$ " or better or consent of instructor.
Study of management and labor in the changing field of telecommunications, with emphasis upon manager's roles and functions in labor intensive cable, film, radio, television and related industries.
Letter grade only (A-F).

## 430. Government Media Policy and Politics (3)

Prerequisites: FEA 300 and 310 and an additional 6 units in the major.
Current issues, policies, and regulations affecting cable, film, radio, television industries, including impact of new technologies.
Letter grade only (A-F).
454. Italian Cinema (3)

Historical and critical examination of Italian cinema.
Letter grade only (A-F). Same course as ITAL 454.

## 456. French Cinema (3)

Historical and critical examination of French cinema.
Letter grade only (A-F). Same course as FREN 456.
457. Between Berlin and Hollywood: German Cinema (3)

Acquaint students with art of medium, particularly as it is realized through artist most responsible for its success or failure, in this case director.
Letter grade only (A-F). Same course as GERM 480.

## 458. Russian Cinema (3)

Prerequisites: Upper division standing.
Focuses on socio-political and aesthetic aspects of Russian Cinema, delineating following periods: Soviet Silent Cinema, Stalinist Cinema, Cinema under Thaw, Cinema under Brezhnev and contemporary cinema.
Letter grade only (A-F). Same course as RUSS 428.
486I. Alternative Media (3)
Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Critical study of censorship and suppression of information in mainstream media by governmental and corporate entities. Focus on importance of freedom information and access to diverse viewpoints. Students research environmental, multicultural, peace, and other issues utilizing alternative media.
490./590. Special Topics in Film and Electronic Arts (3)

Major status. For 590: Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional classified or Full Status in the MFA (Creative Writing Degree Program, or consent of instructor.
Topics of current interest in radio-television-film selected for intensive development.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics; only 6 units may be applied toward the B.A.

## 492. Internship (3)

Prerequisites: Senior standing in major or consent of instructor. Students intern with cooperating media facilities.
Credit/No Credit grading only. May be repeated to a maximum of 6 units.

## 498./598. Advanced Seminar (3)

Prerequisites: FEA 399 with a "B" or better and senior standing in the FEA major. For 598: Conditional Classified Status in the MFA (Screenwriting) Degree Program or consent of instructor. Intensive study of significant issues in film and electronic media. Letter grade only (A-F).
499./599. Special Projects in Film and Electronic Arts (1-3)
Prerequisites: Major status, FEA 399 with a " B " or better. For 599: Conditional Classified Status in the MFA (Screenwriting) Degree Program or consent of instructor.
Research into an area of special interest to the student, culminating in a research paper or production. Productions will be limited by equipment and facilities available during any term.

## GRADUATE LEVEL

## 501./401. Film Critical Theory (3)

Prerequisites: FEA 302 and 406/506 and an additional 6 units in film studies or consent of instructor.
Study of contemporary theoretical models of film analysis and evaluation. Topics include: Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Post colonialism, Queer Theory, and Post-modernism.
Letter grade only (A-F).

## 505./405. Comedy Writing (3)

Prerequisites: FEA 303 or 304 with a " B " or better, or ENGL 405 or 407 with a " B " or better, or consent of instructor.
Study of a variety of historical and contemporary models. Practice in the creation of print pieces; stand-up routines; scripts for television, film, and other media. Heavy focus on comedy as social, political, and technological criticism.
Letter grade only (A-F).

## 508./408. Writing the Screen Adaptation (3)

Prerequisites: FEA 303 or 304 with a " $B$ " or better, or ENGL 405 or 407 with a "B" or better. For 508: approval of the MFA (Screenwriting) Coordinators or consent of instructor.
Writing script adaptations, with study of adaptation theory and successful adaptational models.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
512./412. American Television and African Americans (3)

Prerequisites: Major status, FEA 399 with a "B" or better and fulfillment of the GWAR or consent of instructor.
Comparative examination of depiction of African Americans in American network and syndicated television in a variety of types of programs.
Letter grade only (A-F).
590./490 Special Topics in Film and Electronic Arts (3)

Prerequisites: Major status. For 590: Conditional Classified
Status in the MFA (Screenwriting) Degree Program or Conditional Classified or consent of instructor.
Topics of current interest in film and electronic arts selected for intensive development.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F). May be repeated for a maximum of 9 units with different topics, only 6 units may be applied toward the B.A.

## 598./498 Advanced Seminar (3)

Prerequisites: FEA 399 with a " B " or better and fulfillment of the GWAR and senior standing in the FEA major. For 598: Conditional Classified Status in the MFA (Screenwriting) Degree Program or consent of instructor.
Intensive study of significant issues in film and electronic arts. Letter grade only (A-F).

## 599./499. Special Projects in Film and Electronic Arts (3)

Prerequisites: Major status, FEA 399 with a "B" or better. For 599: Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or consent of instructor.
Research into an area of special interest to the student, culminating in a research paper or production. Productions will be limited by equipment and facilities available during any term.

## 604A. Advanced Seminar in Screenwriting (3)

Open to graduate students only and consent of instructor.
Advanced seminar and intensive workshop in creative writing, reading, criticism, media history, and aesthetics. From a thematic basis, course covers prose, poetry, and all formats and genres of omni media, leading students from text-for-print creativity to text-for-performance and screen/film/video art.
Letter grade only (A-F).

## 604B. Advanced Seminar in Screenwriting (3)

Prerequisites: FEA 604A and consent of instructor.
Advanced workshop in intensive thematic and creative consciousness, writing, criticism, media history, aesthetics, and instructional paradigms, as students write, workshop, revise, and complete a long-form screenplay.
Letter grade only (A-F).

## 604C. Advanced Seminar in Screenwriting (3)

Prerequisites: FEA 604A and 604B, or consent of instructor.
Advanced workshop in intensive and practical creative writing for collaborative media. Long-form screenplay developed and drafted to completion by class as a group, then submitted to industry professionals, and finally revised pursuant to creative commentary and business necessity.
Letter grade only (A-F).

## 604D. Advanced Seminar in Screenwriting (3)

Prerequisites: FEA 604A, 604B, 604C, and consent of instructor.
Advanced seminar and intensive workshop in creative writing, reading, criticism, media history, aesthetics, and the teaching of a creative writing curriculum. Course leads students to completion of their Thesis Project Proposals.
Letter grade only (A-F).

Acting Department Chair<br>Simeon J. Crowther<br>Department Office<br>College of Business Administration (CBA) 420<br>Telephone<br>(562) 985-4569<br>Faculty<br>Professors<br>Hamdi Bilici, S. V. Le, Yulong Ma, Thomas A. Rhee, Thomas J. Rhoads, L. R. Runyon, Darshan L. Sachdeva

## Associate Professors

Peter Ammermann, Jasmine Yur-Austin
Administrative Support Coordinator
Clara Bowman

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

1. Lower Division: ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115, and PHIL 160 or 170.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score ( $70 \%$ ) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300; ACCT 310; ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310, FIN 300, MGMT 300, MKTG 300, IS 301).
C. Completion of Finance, Real Estate and Law Option requirements.
4. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in Finance, Real Estate, and Law (code FIN_BS01) ( 120 units)

The objective of the finance curricula is to prepare students for a successful career in business with an understanding of the financial decision making process and its impact within the overall framework of the business enterprise. The finance curricula offers education in the management techniques and regulations applicable to financial management and investments. The curriculum draws on fundamental knowledge of statistics, computer logic and economics to develop advanced financial concepts. It explores the historical and current roles of various financial institutions and regulatory authorities; details the basic principles and techniques for valuing financial instruments on the basis of fundamentals and/or historical pricing trends; explores the methods of managing risk; and examines financial principles that govern international trade. The finance major may direct the concentration toward financial management or investments.

The financial management concentration provides an opportunity for the student to gain an understanding of the role of finance in the corporate environment. An understanding of investments at both the corporate and personal level is the objective of the investments concentration. Within these concentrations students are provided with an opportunity to gain an understanding of the role of the various aspects of law in a business context, including the development of a comprehension of business ethics.

## Financial Management Concentration

1. FIN 330 or $340,350,400$
2. Six units selected from: BLAW 424; FIN 360, 450, 490.

## Investments Concentration

1. FIN 330 or $340,350,400$
2. Six units selected from: BLAW 424; FIN 450, 480, 490, 499A and 499B.
FIN 499A and FIN 499B (Applied Portfolio Management) can satisfy the six units specific for the Investments Concentration. These courses must be taken in two consecutive semesters. Due to the limited number of available openings, applicants will be chosen according to their GPA, interest level, and personal interviews. Contact the Finance and Law department for further qualification requirements.

## Courses (FIN)

## UPPER DIVISION

## 300. Business Finance (3)

Prerequisite: IS 310 can be taken concurrently.
Integration of computer applications and management information systems in: (1) time value of money, risk, valuation, cost of capital, capital structure; (2) capital budgeting; (3) long-term financing decisions; (4) working capital policy and management; (5) financial analysis and planning.
Letter grade only (A-F).

## 309I. The Consumer in the Legal and Economic Environment (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses; upper-division standing.
Economic and ethical components of consumer issues integrated with consumer law. Economic, legal and regulatory environment of consumers for disputes regarding fraudulent transactions, financial matters, personal and real property contracts, torts, credit and investment issues, and family relationships.
Same as CAFF 309I. (Lecture-Discussion 3 hours.)

## 310. Personal Finance (3)

Financial analysis planning and management for the individual. Topics include owning and financing a home, minimizing taxes, goals and strategies for investing, budgeting, savings plans, controlling expenses and credit usage, determining insurance needs, and planning retirement.
Letter grade only (A-F).

## 330. Insurance Principles (3)

Principles of risk-bearing and insurance. Life and property-liability insurance needs of the individual. Types of carriers and insurance markets; organization and functions of carriers; industry regulation. Letter grade only (A-F).

## 340. Real Estate Principles (3)

Real estate markets, institutions and activities from the perspective of the decision makers involved in real estate.. Fundamental physical, legal, regulatory, economic, mathematical and taxation considerations influencing real estate decision and values. Brokerage, property management, appraisal and counseling. Letter grade only (A-F).

## 350. Investment Principles (3)

Prerequisite: FIN 300.
Investment markets and transactions; sources of investment information; return vs. risk; margin trading and short selling; investment planning; investing in equities and fixed income securities; speculative tax-sheltered investments; gold and other tangibles; portfolio management. Demonstrations and use of microcomputer technology.
Letter grade only (A-F).
360. Capital Markets (3)

Prerequisite: FIN 300.
Capital formation, rates, markets and institutions. Flow of fund analysis, intermediation, interest rate structures, risks and liquidity. Management of financial institutions.

## 400. Financial Management (3)

Prerequisites: FIN 300 and ACCT 310 or 320 , IS 301.
Financial management integrating computer applications and management information systems with financial functions and decisions. Based on case studies. Computer use with appropriate software required. Cash budgeting, capital budgeting, business combinations and mergers, cost of capital, and international finance.
Letter grade only (A-F).
450. Security Analysis (3)

Prerequisite: FIN 350, IS 301.
Microcomputer technology to perform security analysis including bonds and the bond market, stocks and the stock market, security valuation, fundamental and technical analysis, portfolio management and risk-reward relationships. Microcomputer software programs that perform security analysis and portfolio management, numerous databases.
Letter grade only (A-F).

## 480. Derivatives and Futures Markets (3)

Prerequisites: FIN 300 and 350 , IS 301.
Exchanges, operation of firms, trading mechanics, and construction of a personal-risk profile analysis. Traditional decision variables, including construction of a 2 -asset portfolio. Bias in futures prices, theory of storage price, ledger and speculator behavior, and stochastic nature of futures prices.
Letter grade only (A-F).

## 490. International Finance (3)

Prerequisite: FIN 300; suggested, CBA 300; IS 301.
International trade theories, international payments; currency value fluctuations and exchange rates; international capital markets; roles of developing countries; international institutions and multinational enterprises. Individual research required.

## 495. Selected Topics (1-3)

Prerequisite: Consent of instructor, IS 301.
Intensive study of current topics of interest in finance.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.

## 497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, on Dean's List and 3.0 GPA or higher in finance.
Individual projects, study and research of advanced nature in finance.

## 499A-B. Applied Portfolio Management (3-3)

Prerequisites: FIN 499A: FIN 350, 400, 450 (either or both FIN 400 and 450 may be taken concurrently), and consent of instructor and Department Chair, IS 301; FIN 499B: FIN 499A and consent of instructor and Department Chair. FIN 499A to be offered in Fall and accepted students must enroll in FIN 499B in Spring.
Participation in management of actual investment portfolio. Research, monitor, and analyze securities and make, buy and sell recommendations for a student-managed investment fund. Contribute to publication of semi-annual fund report. Market, sector and firm analysis with presentations and outside research.
Letter grade only (A-F).

## GRADUATE LEVEL

## 501. Financial Management Concepts (3)

Prerequisite: MBA standing required.
Integration of computers, management information systems and cases to: (1) time value of money, risk, valuation, cost of capital, capital structure; (2) capital budgeting; (3) long-term financing decisions; (4) working capital policy and management; (5) financial analysis and planning.
Letter grade only (A-F).
525. Estate Planning (3)

Prerequisite: FIN 520.
Planning and administration of the disposition of property by wills, estates and trusts. Use of life insurance, impact of federal and state taxes and special trust provisions and devices.
Letter grade only (A-F).

## 600. Seminar in Business Finance (3)

Prerequisite: MBA standing required.
Financial theory and management: (1) time value of money, risk, valuation, cost of capital, capital structure; (2) capital budgeting; (3) long-term financing decisions; (4) working capital policy and management; (5) financial analysis and planning; (6) special topics.
May be repeated to a maximum of 3 units. Letter grade only (A-F).

## 620. Capital Budgeting (3)

Prerequisite: FIN 600.
Theory of capital budgeting within the framework of the firm. Cost of capital determination and logic of expansion vs. growth, and equity financing vs. debt financing. Computer applications required.
Letter grade only (A-F).

## 630. Seminar in Financial Forecasting (3)

Prerequisite: FIN 600.
Research projects in industry, individual company, product and commodity areas. Computer applications required.
Letter grade only (A-F).

## 650. Seminar in Investments (3)

Prerequisite: FIN 600.
Security analysis, portfolio planning, balance and adjustment as related to (1) individual circumstances of the investor, (2) specific market conditions, and (3) broader financial aspects of the economy. Presentation and interpretation of student reports on selected topics. Computer applications required.
Letter grade only (A-F).

## 690. Seminar in International Finance (3)

Prerequisite: FIN 600.
Background in economics, accounting and finance, graduate standing in business administration. Real and monetary factors in the finance of international business, international capital markets, movement of funds and special problem areas.
Letter grade only (A-F).

## 695. Selected Topics (3)

Prerequisite: Consent of instructor.
Topics to be announced in Schedule of Classes. Different topics each semester.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisite: Consent of instructor. Individual study under direction of faculty.
Letter grade only (A-F).

## 699A-B. Applied Portfolio Management (3-3)

Prerequisites: FIN 699A: FIN 520, 600, 650; consent of instructor and Department Chair; FIN 699B: FIN 699A; consent of instructor and Department Chair.
FIN 699A offered in Fall and accepted students must enroll in FIN 699B in Spring.
Participation in management of actual investment portfolio.
Research, monitor, and analyze securities and make, buy and sell recommendations for a student-managed investment fund. Contribute to publication of semi-annual fund report. Market, sector and firm analysis with presentations and outside research.
Letter grade only (A-F).

# FOOD SCIENCE <br> College of Health and Human Services <br> Department of Family and Consumer Sciences 

## Department Chair

M. Sue Stanley

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Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh

## Graduate Advisors

Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Science in Dietetics and Food Administration

The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in three option areas of study:

- Nutrition and Dietetics
- Food Science
- Hospitality Foodservice and Hotel Management

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

Requirements for the major include a minimum of 130 units for Food Science. The courses which will provide
these units are determined by the option the student chooses. In addition to general education requirements ( 51 units), a minimum of 40 units in Family and Consumer Sciences is required, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is accepted by the University.

## Food Science

The Food Science curriculum has an interdisciplinary focus which includes food science, food processing, sensory evaluation, nutrition, chemistry, and microbiology, plus a variety of supporting course work in related disciplines. All courses are designed to develop an understanding of the physical and chemical nature of foods and how it relates to the food industry and consumer safety. The food industry careers awaiting graduates offer diverse opportunities as the world supply expands with technological developments. Career options for professionals in the field of food science include: research and product development, food formulation and processing, consumer safety, sensory evaluation, quality assurance, government organization, and food ingredient sales and marketing.

## Option in Food Science <br> (code FCS_BS02) (130 units)

BIOL 207; BIOL 260 or ED P 419 or H SC 403; CHEM; 111A, 327, and 448; COMM 110; ENGL 101 or 317; MATH 119A; MICR 200; MKTG 300; PHYS 100A; PSY 100 or SOC 100; CAFF 321; FCSE 299, 486, 499 ; NUTR 132, 234, 331A, 336; HFHM 235; FSCI 330, 332, 338, 432, 435, 469, 492F; and 12 units to be selected from: CHEM 111B, FSCI 464, HFHM 477, FCSE 497; IS 233 or 300 or FCSE 387; MICR 473, and NUTR 331B or 433.

## Minor in Food Science (code FCS_UM04)

Significant preparation for employment in the Food Science Industry may be developed through completion of this program of study.

Eighteen units including FSCI 332, 338, 432, 435, 492F;
3 units selected from FSCI 330, 464, 469, and FCSE 497. It is the student's responsibility to adhere to all prerequisites listed below. Some of the prerequisites fulfill General Education requirements.

1. HFHM 235, CHEM 327, and MICR 200 are prerequisites for FSCI 332;
2. FSCl 332 is a prerequisite for $\mathrm{FSCI} 338,432$, 435, and 492F;
3. NUTR 132 and FSCI 332 are prerequisites for FSCI 330 ;
4. FSCI 332 and BIOL 260 or equivalent statistics class are prerequisites for FSCl 464.
The Minor in Food Science is available to any non-Food Science major.

## Food Science Courses (FSCI)

## UPPER DIVISION

## 330. Dairy Science (2)

Prerequisites: NUTR 132, HFHM 235.
Study of dairy science from chemical microbiological, processing, nutritional values, and economic standpoints. Integration of recent technology as implemented to feature marketed dairy products both traditional and contemporary.

## (Lecture-discussion 2 hours.)

332. Food Science (3)

Prerequisites: CHEM 327; HFHM 235; MICR 200 or equivalent.
Composition and structure of foods: chemical changes in foods that affect their color, flavor, texture, aroma, and nutritive quality during processing and preparation; techniques for food preservation.
Course fee may be required. (Lecture-discussion 2 hours, laboratory 3 hours.)

## 338. Introduction to Food Processing (3)

Prerequisites: FSCI 332.
Study of industrial concepts of food processing. Raw agricultural commodities through the production phases to a final product acceptable to consumers. (The course may include limited visitations to food preparation sites.)
(Lecture-discussion 3 hours.)

## 432. Food Analysis (3)

Prerequisites: CHEM 327, FSCI 332 or equivalent.
Application of scientific methods of food analysis. Ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems.
Letter grade only (A-F). Course fee may be required. (Seminar 2 hours, Laboratory 3 hours.)
435. Food Processing, Preservation and Packaging (3)

Prerequisites: FSCI 332 or consent of instructor.
Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutrition. Evaluation of chemical additives. Microbiological aspects of food.
(Lecture - discussion 2 hours, laboratory 3 hours.)

## 464. Sensory Analysis of Foods (3)

Prerequisites: FSCI 332, BIOL 260 or equivalent statistics; consent of instructor.
Principles and methods of analysis of sensory attributes.
Applications, advantages and limitations of sensory methods using trained judges and consumer panels. Computer use of statistical data analysis and plotting. Statistical analysis, data interpretation and comparison with previous literature.
Course fee may be required. (Discussion 2 hours, Laboratory 3 hours.)

## 469. Food Product Development (1)

Prerequisites: FSCI 332, or consent of instructor.
Industrial concepts and technology as they apply to food product development and formulation. Includes principles of new product development, ingredient replacements, and product improvements. Development of a prototype, ingredient interaction, and product cost analysis.
Letter grade only (A-F). (Seminar 1 hour)

## 492F. Internship in Food Science (3)

Prerequisites: Student must be a Family and Consumer Sciences: Food Science major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Food Science; and FSCI 332. Each prerequisite course must be completed with a grade of " $C$ " or better.
Field experience in which student assumes a pre-professional role in professional setting. Objectives by student with supervisor must be approved by major advisor and form the basis for evaluation. May be repeated for a maximum of 6 units. (Seminar 3 hours)

Department Chair<br>Jutta Birmele<br>Program Director<br>Stephen Fleck<br>RGRLL Language Coordinator<br>Markus Muller<br>Single Subject Coordinator for L.O.T.E.<br>Jean-Jacques Jura<br>Department Office<br>McIntosh Humanities Building (MHB), Room 820<br>Telephone<br>(562) 985-4318<br>Faculty<br>Professors<br>Clorinda Donato, Stephen Fleck<br>Associate Professor<br>Najib Redouane<br>Administrative Support Coordinator<br>Cindy McCarty<br>Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

Adegree in French places the world of international communication and culture at your fingertips. As one of the foremost languages of global diplomacy, relations, and scholarship, a degree in French makes careers in arts management, art history, international business, international relations, teaching, and travel possible. It is also a preferred language for academic pursuit in the social sciences and critical studies. The Francophone world only begins in France, stretching far beyond the Champs-Elysées into Africa, Quebec, the Caribbean, and Tahiti. Additionally, a double major or a minor in French enhances any other degree program, making the student doubly marketable upon graduation. Graduate study leading to the Master of Arts degree comprises another feature of the program. Students who complete the Master of Arts degree in French deepen their knowledge of the Francophone world. They pursue or continue professions in teaching, business, travel, and diplomacy, to name only a few, or proceed to doctoral programs at Ph.D. granting institutions. Teaching Assistantships are available.

Learning French makes you eligible for study and travel abroad in the International Programs of the California State University System. (We are happy to assist you in including a study abroad experience into your program of language and literary study.) Students are encouraged to participate in work/study abroad options.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in French (code RGR_BA01) (120 units)

The major in French consists of 36 upper-division units in the 300-400 level courses indicated below. The number of lower-division units will depend on the amount of French studied previously in high school or college, since students with prior study of French may enter at advanced standing (usually second or third year). The major program satisfies the requirements for the Single-Subject teaching credential in French, but credential candidates must take FREN 414 (Phonetics). Major students should be mindful of the Department's second language requirement: two college years or equivalent of a second foreign language, other than English. The Department also recommends inclusion of specified history courses in the program of study. These courses offer additional enrichment to the cultural component of the student's course of study.

## Requirements

Lower Division: FREN 214. Students who have completed sufficient high school French may take upper-division courses as soon as lower-division requirements have been met.

Upper-Division: A minimum of 36 units of upper-division courses which must include FREN 312A, 312B, 314, 335, $336,337,411,440,480$ and three of the following courses: $414,456,460,462,470,471,472,474,475,477,479$, 490; one of the following courses may also be used in this category: RGR 346I, 450I. Candidates for the teaching credential must take FREN 414.

Department Requirement: Two years of a second foreign language at college level or equivalent is required of all majors.

Departmental Recommendation: Students specializing in French should include the following courses in their program of study: HIST 131, 132, and one or more of the following: HIST 335, 336, 337. A selection from the following courses would also be appropriate: HIST 332, 333, RGR, 346I, 450I.

## Bachelor of Arts in French Studies (code RGR_BA08)

Director - David Shafer, Assistant Professor, History Advisor - Stephen Fleck, Professor of French Program Office FO2-218, Telephone (562) 985-4612

The Bachelor of Arts in French Studies provides students with a thorough basis in the study of French Language, History, Literature and Culture within a global context. Students completing the B.A. in French Studies will acquire an interdisciplinary understanding of French history, culture, and society that will prepare them for a broad range of career options both at home and abroad. These include international law and business, teaching, government and foreign service. In addition, the solid background in French and Francophone
history and literature provides a strong foundation for further study at the graduate level in a variety of M.A. and Ph.D. programs.

The French Studies Program situates California State University, Long Beach at the vanguard of scholastic innovation in the burgeoning field of cultural studies. The French Studies major provides a unique opportunity for students to address the cultural, economical, social, and political dimensions of Francophonie. This major reinforces California State University, Long Beach's established and recognized record as a leader in offering students a global pedagogical experience that can be transferred to the working world of the present and the future.

To meet new demands for professionals, French Studies combines courses from literature and history. French Studies will enable students to draw from a multifaceted disciplinary basis to interpret cultural phenomena and trends in a variety of global contexts. Students will receive training in historical, linguistic, and literary methods in the complementary areas of French and Francophone history and literature in this major. As the only public institution of higher education in California to approach French Studies at the undergraduate level from both global and cross-disciplinary perspectives, California State University, Long Beach recognizes the cooperative and symbiotic relationship connecting the disciplines of history and literature with respect to a comprehensive understanding of the Francophone World.

French Studies Majors are required to develop a program of study in consultation with the program advisor. In addition to assisting students in the development of the program planner and providing advice on post-graduate options, the program advisor and director maintain close contact with each student in the major. Courses for the program have been selected to foster synergistic growth in French language, literature, culture and history. Students begin the major at the third-year level, after they have completed two years of college French (or have acquired the equivalent competency) and after they have completed course work in world history. At the third year they will take advanced language and composition, survey courses in French literature, historical methods, and 300-level French History courses. During the senior year, students will take French Civilization, specialized courses in the literature and history of France and the Francophone world, and the French Capstone course. Furthermore, students majoring in French Studies will be encouraged to avail themselves of the opportunity to participate in a study abroad or internship program.

## Requirements

Upper Division: A minimum of forty-eight (48) units of upper division course work. Fifteen (15) units must come from the following History courses: HIST 334, 336, 337, 339 and 301. Twenty-one (21) units must come from the following French courses: FREN 312A, 312B, 335, 336, 337, 411 and 440. However, with the Program Director's consent, the requirement of FREN 312A and 312B may be waived. The remaining twelve (12) units can be selected from the following courses (subject to prior approval of the Program Director and based on course content): HIST 435, 498, FREN 456, 470, 471, 472, 474, 477, 479, 480, 490.

## Minor in French (code RGR_UM01)

A minimum of 20 units which must include: FREN 312A, 312B, 314, 411 and at least one other upper-division course in French to make a minimum total of 15 upper-division units. The Minor in French is available to any non-French major.

## GRADUATE PROGRAMS

## Master of Arts in French (code RGR_MA01)

## Prerequisites

1. A bachelor of arts degree in French, or:
2. A bachelor's degree with a minimum of 24 upper-division units in French, comparable to those required of a major in French at this University. Deficiencies will be determined by the advisor after consultation with the student and study of transcript records.

## Advancement to Candidacy

1. Approval of the graduate program by the graduate advisor, the faculty advisor and/or departmental committee, and the College of Liberal Arts Associate Dean of Graduate Studies.
2. The candidate should file for advancement upon completion of 6 units and preferably no more than 9 units on the program. A 3.0 GPA is required.
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

## Requirements

1. Completion of a minimum of 30 units of approved graduate-credit courses with at least 24 units in French distributed as follows:
a. 15 units of 600 series courses.
b. 9 units of 500 or 600 series courses in French.
c. 6 units of other acceptable graduate-credit courses.
(NOTE: Courses taken outside the Department as subject to departmental approval.)
2. Two years of college-level study, or equivalent, of another language (e.g., German, Italian, Latin, Russian, or Spanish) with a minimum average grade of "B" or better. This requirement may also be met by passing the Graduate Studies Foreign Language Test (G.S.F.L.T.) In another language with a score of 500 or better. This requirement must be completed before taking the comprehensive examination.
3. A comprehensive examination.
4. Teaching Associates must take FREN 424, Language Acquisition, during the first year of the assistantship.

## Single Subject Teaching Credential, French (code 152)

Completion of the French major meets the subject matter competence requirement for the Single Subject Preliminary Credential in French (code 152). Prospective students should consult the undergraduate French Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective teachers of French are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/singlesubject) for a description of the professional preparation requirements, courses, and application procedures.

The French Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Same as for the major in French but including French Phonetics, FREN 414, as one of the 400-level courses.

## French Courses (FREN)

## LOWER DIVISION

## 101A. Fundamentals of French (4)

Prerequisite or corequisite: Any Foundation course.
Fundamental skills of speaking, comprehending, reading and writing. For those who are beginning the study of French or who have had one year of high school French or equivalent.
(lecture 4 hrs.) (CAN FREN 2)

## 101B. Fundamentals of French (4)

Prerequisite or corequisite: FREN 101A or two years of high school French or equivalent. Corequisite: Any Foundation course.
Fundamental skills of speaking, comprehending, reading and writing. Continuation of FREN 101A.
(lecture 4 hrs.) (CAN FREN 4)
201A. Intermediate French (4)
Prerequisite: FREN 101B or three years of high school French or equivalent, and completion of the 13 -unit Foundation requirement (or entering competency equivalent to FREN 101B and completion or concurrent enrollment in at least one Foundation course).
Continued work in speaking, pronunciation, comprehension and writing.
(Lecture 4 hrs.) (CAN FREN 8)

## 201B. Intermediate French (4)

Prerequisite: FREN 201A or four years of high school French or equivalent, and completion of the 13-unit Foundation requirement (or entering competency equivalent to FREN 201A and completion or concurrent enrollment in at least one Foundation course.)
Continued work in speaking, pronunciation, comprehension and writing, with some reading of modern writers.
(lecture 4 hrs.) (CAN FREN 10)

## 214. Intermediate Conversation (3)

Prerequisite: FREN 101B.
Should be taken concurrently with FREN 201A or 201B. Designed to develop basic conversational skills and to prepare for more advanced work in FREN 314.
Letter grade only (A-F).

## UPPER DIVISION

## 312A. Advanced French I (3)

Prerequisite: Upper division standing in French or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.

## 312B. Advanced French II (3)

Prerequisite: Upper division standing in French or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.

## 314. Advanced Conversation (3)

Prerequisite: FREN 214 or consent of instructor.
Continuation of FREN 214.
Letter grade only (A-F).

## 335. Survey of French Literature I (3)

Prerequisite: Upper division standing in French.
From the Middle Ages through the Seventeenth Century.

## 336. Survey of French Literature II (3)

Prerequisite: Upper division standing in French. Eighteenth to Twentieth Century.

## 337. Survey of French Literature III: Twentieth Century

 French and Francophone Literatures (3)Prerequisites: Upper division standing in French.
Survey of Twentieth-Century and Francophone literatures.
411. Advanced French Syntax and Composition (3)

Prerequisites: FREN 312A-B or equivalent.
Special emphasis on the writing of short compositions and developing an awareness of French style, as well as advanced syntax.
*414. French Phonetics (3)
Prerequisites: FREN 312 A-B or consent of instructor.
General concepts of linguistic science. Linguistics applied to the study and teaching of the French language. Articulatory phonetics as a means to form native French pronunciation habits with emphasis upon the difficulties encountered by speakers of American English.

## 423./523. Introduction to French Linguistics (3)

Prerequisites: Completion of FREN 312AB and 411.
Presents an overview of French linguistics: Phonology, morphology and syntax. The course also focuses on the application of linguistic knowledge of French to the teaching of French at the high school level in the U.S.

## 440. French Civilization (3)

Prerequisites: FREN 312A-B (may be taken concurrently with FREN 335 or 336 or consent of instructor).
Significant aspects of French art, culture and social institutions.

## 456. French Cinema (3)

Prerequisite: Senior standing or consent of instructor.
Acquaint students with the art of the medium, particularly as it is realized through the work of the artist most responsible for its success or failure, in this case the director.
Letter grade only (A-F). Same course as FEA 456.
460./560. The Art of Translation (3)

Prerequisites: Upper division or graduate status.Consent of instructor for third-year students.
Cover translation of French texts into English and of English texts French, as well as theories of translation and their implications. Translations may be published in The Translators' French Quarter, a journal of the RGRLL Department.
May be repeated to a maximum of 6 units.
462./562. Reading French Women Writers (3)

Prerequisites: FREN 335, 336, and 337 (Surveys of French Literature I, II, and III) or consent of instructor.
Covers literary production of women who wrote and write literature in France. French feminism, the question of "écriture féminine" and gender will also be discussed. Does not cover Francophone women writers.
May be repeated to a maximum of 6 units.
470./570. French Literature of the Middle Ages (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the period. Texts in modern French.
471./571. French Literature of the Renaissance (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the 16th Century.
472./572. French Literature of the Seventeenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the century.
474./574. The Age of Enlightenment (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers and thinkers of the century. Drama, poetry and prose.
475./575. Seminar in Francophone Literature (3)

Prerequisites: FREN 337 or consent of instructor.
May be repeated to a maximum of 15 units with different topics in the same semester.
A. Africa
B. Caribbean
C. Maghreb
D. Quebec

## E. Switzerland

## 476./576. French Comic Traditions (3)

Prerequisites: FREN 335, 336, 337 or consent of instructor. Historical overview of French comedic forms; close reading of selected works; elements of comic theory. Includes works such as medieval farce, Molière's different comic genres, Beaumarchais, Feydeau and absurdist dramatists such as Jarry and lonesco, as well as film comedies.
Letter grade only (A-F).
477./577. French Literature of the Nineteenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.
479./579. French Literature of the Twentieth Century (3

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.

## 480. Senior Seminar: Self and Society (3)

Prerequisites: FREN 335, 336 and two 400-level French courses, or consent of instructor.
This capstone senior seminar focuses on literary works, ranging from Medieval works such as Tristan et Iseult to twentieth-century Francophone classics such as L'Enfant noir; various historical, critical and philosophical works; and literature based films such as Madame Bovary.
Letter grade only (A-F).
490./590. Special Topics in French (1-3)

Study of a particular topic in French literature, language, or culture. Specific topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 12 units with different topics.
494. Internship in French (1-3)

Prerequisites: Consent of instructor and department chair.
Field work in French, supplemented by readings and tutorials under direction of a faculty. Internships, small group discussion/ teaching, and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in French.

## 499. Directed Studies (1-3)

Prerequisites: Consent of instructor and department chair. Independent study undertaken under the supervision of a faculty member.
May be repeated to 3 units provided the material is not the same. May be repeated to a maximum of 6 units with prior consent of department

## GRADUATE LEVEL

523./423. Introduction to French Linguistics

Prerequisites: Completion of FREN 312A/B and 411.
Presents overview of French linguistics: Phonology, morphology and syntax. Focuses on application of linguistic knowledge of French to teaching French at high school level in U.S.
560./460. The Art of Translation (3)

Prerequisites: Upper division or graduate status. Consent of instructor for third-year students.
Covers translation of French texts into English and of English texts French, as well as theories of translation and their implications. Translations may be published in The Translators' French Quarter, a journal of the RGRLL Department.

## 562./462. Reading French Women Writers (3)

Prerequisites: FREN 335, 336, and 337 (Surveys of French Literature I, II, and III) or consent of instructor.
Covers literary production of women who wrote and write literature in France. French feminism, the question of "écriture féminine" and gender discussed. Does not cover Francophone women writers.
May be repeated to a maximum of 6 units.

## 570./470. French Literature of the Middle Ages (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the period. Texts in modern French.
Letter grade only (A-F).
571./471. French Literature of the Renaissance (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the 16th Century.
Letter grade only (A-F).
572./472. French Literature of the Seventeenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative drama, poetry and prose of the century. Letter grade only (A-F).
574./474. The Age of Enlightenment (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers and thinkers of the century. Drama, poetry and prose.
Letter grade only (A-F).

## 575./475. Seminar in Francophone Literature (3)

Prerequisites: FREN 337 or consent of instructor.
May be repeated to a maximum of 15 units with different topics in the same semester.
A. Africa
B. Caribbean
C. Maghreb
D. Quebec

## E. Switzerland

## 576./476. French Comic Traditions (3)

Prerequisites: French 335, 336, 337 or consent of instructor. Historical overview of French comedic forms; close reading of selected works; elements of comic theory. Includes works such as medieval farce, Molière's different comic genres, Beaumarchais, Feydeau and absurdist dramatists such as Jarry and lonesco, as well as film comedies
Letter grade only (A-F).
577./477. French Literature of the Nineteenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.
Letter grade only (A-F).
579./479. French Literature of the Twentieth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.
Letter grade only (A-F).

## 590./490. Special Topics in French (1-3)

Study of a particular topic in French literature, language, or culture. Specific topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 12 units with different topics.

## 599. Directed Studies (1-3)

Prerequisite: Graduate standing with baccalaureate degree or equivalent.
Graduate-level in-depth study on selected topics under supervision of a graduate faculty. Topic and study outline of work undertaken to be on file in Department. Enrollment contingent upon approval of Department Chair and faculty member.
May be repeated for a maximum of 6 units with different topics in the same semester. Letter grade only (A-F).

## 604. Seminar in a Century of French Literature (3)

Prerequisite: Corresponding 400/500 level century survey course or consent of instructor.
Intensive studies in one of the following topics.
May be repeated to a maximum of 18 units with different topics in the same semester. Letter grade only (A-F).
A. Seminar in Medieval Literature
B. Seminar in 16th Century Literature
C. 17th Century
D. 18th Century
G. Seminar in 19th Century Literature (3)
H. 20th Century
688. Seminar in French Literature or Culture (3)

Prerequisite: Graduate standing in French.
Intensive study of a specific aspect of French literature or culture.
Subjects to be announced in the Schedule of Classes.
Letter grade only (A-F).

## 696. Bibliographical Methods of Research (3)

Prerequisite: Graduate standing in French.
Introduction to methods of research, scholarly writing.
Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of department chair.
Individual study under the guidance of a faculty member.
May be repeated to a maximum of 3 units. Letter grade only (A-F).

## 698. Thesis (2-6)

Planning, preparation, and completion of thesis in French for the master's degree. Optional.

Department Chair<br>Christine M. Rodrigue<br>Department Office<br>Liberal Arts 4 (LA), Room 106<br>\section*{Telephone}<br>(562) 985-4977 / (562) 985-8432<br>Website<br>http://www.csulb.edu/geography<br>Faculty<br>\section*{Professors}<br>James R. Curtis, Molly Debysingh (Emerita), Frank Gossette (Emeritus), Edward Karabenick (Emeritus), Christopher T. Lee, Richard Outwater (Emeritus), Christine M. Rodrigue, Joel Splansky (Emeritus), Judith Tyner (Emerita)<br>\section*{Associate Professor}<br>Vincent Del Casino<br>\section*{Assistant Professors}<br>Camille Holmgren, Christine L. Jocoy, Paul Laris, Dmitrii Sidorov, Deborah Thien, Suzanne P. Wechsler<br>Undergraduate Advisor<br>Paul Laris<br>Graduate Advisor<br>Christopher T. Lee<br>Internship Program Director<br>Suzanne P. Wechsler

Administrative Support Coordinator
Lisa Mikhail

Students desiring information should contact the department office for referral to one of the faculty advisors.

Geography focuses on the spatial organization of human and physical landscapes, the interactions between human society and the physical environment, as well as on the meanings that people bring to their place in the world. Geography sits at the nexus of the social and physical sciences, drawing from a range of theoretical and methodological approaches for understanding the world around us. We organize the major into four distinct areas of concentration - Human Geography, Environmental/Physical Geography, Geospatial Techniques, and Global and Regional Studies - as a way to structure the diverse approaches that geographers use in thinking about spatial relationships in geographic context. Students are required to focus within one of these concentrations at the undergraduate level.

Because of the diversity of the subject matter that it considers, geography offers a broad, liberal education, which is applicable to many careers. These include elementary, secondary, and college teaching; cartography; geographic information systems (GIS); computer mapping; regional, urban and environmental planning; natural resources management, and environmental monitoring; business; government; travel and tourism, and the foreign
service. The Geography Department offers the Bachelor of Arts and Master of Arts degrees, Geography Minor, and two certificates: Urban Studies and Geographic Information Science. Certain Geography courses are applicable to teaching credential programs; to the degree in Liberal Studies; and to certificate programs in Environmental, Urban, Asian, Latin American, and Russian and East European studies, and GIS. Students may obtain materials from the department describing the geography programs and courses recommended for career preparation or visit its home page at http://www.csulb.edu/geography/.

The Master of Arts degree in geography is designed for those wishing to expand their geographic competence beyond that expected of the bachelor's degree. The Master of Arts degree is becoming a common requirement for employment advancement and it provides the preparation necessary for success in geography Ph.D. programs at other universities. Candidates are responsible for observing the general requirements stated in this Catalog as well as the specific departmental requirements contained in the Geography Master of Arts Handbook.

## Bachelor of Arts in Geography (code GEOGBA01) (120 units)

## Requirements

A grade of " $C$ " or better must be achieved in all upper division Geography Courses.

The Geography major requires at least 39 units of which at least 9 must be at the 400 level. These units are broken down into two broad categories:

Lower Division: 12 units required (GEOG 100 or 120 or 160; GEOG 140; GEOG 200; and GEOG 280).

Upper Division: 27 units required, which must include at a minimum: GEOG 340 or 355 I, GEOG 360 and 380, one Regional course (see list below) and an additional 12 units within one Concentration (Human Geography, Environmental/ Physical geography, Geospatial Techniques, or Global and Regional Studies).

## Major Concentrations and Grouping of Geography Courses

The CSULB Geography Department encourages geography students to acquire knowledge of the breadth of the discipline, to develop an understanding of the regional and systematic approaches to studying and applying the discipline, and to become proficient in the application of methods of inquiry and analysis that are employed in the discipline. To facilitate the development of a prepared and well rounded geographer, Geography courses are grouped into Human Geography, Environmental/Physical Geography, Geospatial Techniques, and Global and Regional Studies. Students are urged to complete courses in each cluster and to seek the advice of the undergraduate advisor and other faculty to identify courses that are best suited to meet their educational and career objectives. In addition, programs may be tailored to meet the needs of individual students especially those choosing to double-major.

Environmental/Physical Geography: GEOG 340, 355I, 440, 442, 443, 444, 445, 446, 447, 455, 458
Human Geography: GEOG 319I, 352, 360, 366, 381, 452, 460, 465, 468, 470
Geospatial Techniques: GEOG 400, 402, 473, 474, 475, 481\#, 482, 484, 485, 486, 487A, 487B, 488
\# GEOG 481 is eligible only to students concentrating outside Geospatial Techniques
Global and Regional Studies:
Global Studies Courses: 319I, 352, 355I, 452, 460, 468, 470.

Regional Courses: GEOG 304, 306, 308I, 309I, 313I, 314I, 315I, 316, 318, 320, 326

## Additional Courses

The following courses may be included in the above concentrations with approval of the Undergraduate Advisor: GEOG 492, 494, 497.

## Minor in Geography (code GEOGUM01)

The Minor in Geography is available to any nonGeography major.

The minor requires a minimum of 18 units consisting of GEOG 140; 100 or 120 or 160; and 280 or 380 , and at least 9 units of upper division courses with at least one course selected from the 400 series.

## Certificate in Geographic Information Science (code GEOGCT01)

## Director

Franklin Gossette

## Associate Directors

Christopher Lee, Suzanne Wechsler

## Requirements

This program offers specialized training in a variety of theoretical and applied geospatial techniques. The program is designed to provide experience in quantitative spatial analysis through GIS, working with remotely sensed imagery and field-derived data, and effective communication through maps. The certificate serves as a supplement to standard degree programs. It provides essential training for those seeking careers in the geospatial technologies in both the public and private sector.

A brochure describing the GIScience Certificate Program in greater detail is available in the Geography Department Office, LA 4-106, or on-line at www.csulb.edu/geography.

## Certificate Requirements

1. A bachelor's degree, which may be earned concurrently.
2. Consultation with the certificate advisor in the Geography Department.
3. Thirty (30) units distributed as follows:
A. Core requirements (15 units): GEOG 380, 482, 473, 485/585
B. Specialization (12 units, selected from the following with the approval of Certificate Advisor): GEOG 400, 474, 475/575, 484/584, 487A/587A , 487B/587B, 488/588, 680, 494, 497, 697
C. Elective (3-4 units): Any course chosen from the Specialization courses listed above or the following:

GEOG 381, 481, 492 (chosen with the approval of the Certificate Advisor); a course in databases, chosen with the approval of the Certificate Advisor; a course in graphic design, chosen with the approval of the Certificate Advisor; a course in surveying and mapping, chosen with the approval of the Certificate Advisor.

## Certificate in Urban Studies (code GEOGCT02)

The Urban Studies Program, housed in the Department of Geography, offers an education in the analysis of urban patterns, processes, and issues, and serves as an excellent supplement to standard degree programs. It offers essential training for those seeking both private sector and public sector careers or graduate study in fields concerned with the urban region, its development, characteristics, problems, and special communities.

Because urban issues cut across a variety of disciplines, the program takes an interdisciplinary approach. Each student participates in a small core of courses in Geography and Political Science but also assembles a distinctive mix of related courses from a variety of departments. The result is a customized program that provides essential information about the dynamics, form, and characteristics of urban regions while allowing a student to design an individualized program of study.

A brochure describing the Urban Studies Certificate Program in greater detail is available in the Geography Department Office, LA 4-106, or on-line at www.csulb.edu/ geography.

## Certificate Requirements

1. A bachelor's degree, which may be earned concurrently.
2. Consultation with the undergraduate advisor in the Geography Department.
3. 24 units distributed as follows:

Core requirements, 9 units: U/ST 301I (same as GEOG 301I), GEOG 466 and 467 or POSC 327
Elective Courses, 15 units, to be selected from the following: AIS 319 (same as ASAM 319, B/ST 319, CHLS 319, W/ST 319); ANTH 416; ASAM 345; BIOL 303 (same as GEOL 303); B/ST 335, 452; DESN 367; CAFF 322, 422, 428; GEOG 446 (same as U/ST 446); HIST 468, 469, 474I; POSC 327, 442; W/ST 432.

## Master of Arts in Geography (code GEOGMA01)

## Prerequisites

1. A bachelor's degree in geography; or,
2. A bachelor's degree with 24 units of upper division courses substantially equivalent to those required for a geography major at this University; or,
3. A bachelor's degree in a related discipline with 24 units of upper division courses in a combination of geography and approved courses in related disciplines,
4. Completion of introductory methods course,
5. An undergraduate GPA of 3.0 ("B") or better in geography, or alternative evidence of ability to do graduate work,
6 . File with the department a declaration of intent to seek the master's degree in geography.

## Advancement to Candidacy

1. See the Geography Graduate Student Handbook;
2. See the general University requirements.

## Requirements

1. Completion of courses required to remove foundational and prerequisite deficiencies (see prerequisites above),
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR),
3. Completion of 30 units of approved upper division graduate courses. A minimum of 24 units of Geography courses. A minimum of 18 units of 500- and 600-level courses, which must include GEOG 586, 596, 696, 1 additional seminar, and 6 units of thesis (GEOG 698).

## Grouping of Geography Courses

The CSULB Geography Department encourages geography students to acquire a knowledge of the breadth of the discipline, to develop an understanding of the regional and systematic approaches to studying and applying the discipline, and to become proficient in the application of the methods of inquiry and analysis that are employed in the discipline. To facilitate the development of a prepared and well rounded geographer, Geography courses are grouped into: Regional Geography, Human Geography (Human or Environmental), and Geospacial Techniques Geography. Students are urged to complete courses in each cluster and to seek the advice of the undergraduate advisor and other faculty to identify courses that are best suited to meet their educational and career objectives.

## Global and Regional

GLOBAL:
3191. International Development
352. Geography of Travel and Tourism

355I. International Environmental Issues
*452. Geography of the Global Economy
*460. Population Geography
468. World Cities/Cities of the World
*470. Political Geography

## REGIONAL

100. World Regional Geography
101. California
102. United States and Canada
103. Modernization in Global Perspective

308I. Africa South of the Sahara
309I. The Middle East and North Africa
313I. Southeast Asia
314I. South Asia
315I. East Asia
316. Europe
318. Russia and Its Neighbors
320. Latin America
326. Pacific Island Area

## Human Geography

120. Geography of Human Diversity in the United States
121. Introduction to Human Geography

301I. Urban Life and Problems
3191. International Development
352. Geography of Travel and Tourism
366. Introduction to Urban Geography
*381. Maps and Civilization
*446 Land Use Planning
*452. Geography of the Global Economy
*460. Population Geography
465./565. Social Geography
*466. Urban Geography: Principles
467./567. Urban Geography: Metropolitan Problems
468. World Cities/Cities of the World
*470. Political Geography

## Environmental/Physical Geography

140. Introduction to Physical Geography
141. Environmental Geography

355I. International Environmental Issues
440./540. Land and Water Environments
*442. Biogeography
443. Watersheds: Processes and Management
*444. Climatology
445. Palaeoclimatology
447. Landscape Restoration
*455. People As Agents of Environmental Change
458./558. Hazards and Risk Management

## Methods and Techniques

These courses develop skills in graphic and statistical communication and field analysis which are used within the various sub-fields of the discipline.
200. Introduction to Research Methods for Geographers
280. Introduction to Geospatial Techniques
380. Map Interpretation and Analysis
*400. Geographical Analysis
402.. Qualitative Geographic Analysis
*482. Thematic Map Design for Presentation and GIS
*473. Remote Sensing
*474. Introduction to Digital Image Processing
484./584. Advanced Concepts in Presentation Cartography
485./585. Introduction to Geographic Information Systems
*486. Field Methods in Landscape Analysis
488./588. Geographic Information Systems

## General

*492. Internship in Applied Geography
*494. Special Topics
*497. Directed Studies

## Geography Courses (GEOG)

## LOWER DIVISION

## 100. World Regional Geography (3)

Prerequisite/Corequisite: One G.E. Foundation course.
Through a spatial approach, World Regional Geography introduces students to the world's geographic realms and examines their cultural, population and political dynamics, resources and economic development, patterns of settlement and environmental elements.
Same course as GEOG 100W. Not open for credit to students with credit in GEOG 100W.

## 100W. World Regional Geography (3)

Through a spatial approach, World Regional Geography introduces students to the world's geographic realms and examines their cultural, population, and political dynamics, resources and economic development, patterns of settlement and environmental elements.
Same course as GEOG 100. Not open for credit to students with credit in GEOG 100.
120. Geography of Human Diversity in the United States (3)

Prerequisite/Corequisite: One G.E. Foundation course.
Examines America's Human Diversity from a geographic perspective focusing on the spatial distribution and organization of race/ ethnicity and gender/sexuality groups across the U.S.'s rural and urban cultural landscapes while emphasizing the spatial politics of inclusion and exclusion.

## 140. Introduction to Physical Geography (3)

Prerequisite/Corequisite: One G.E. Foundation course.
Systematic study of the physical environment including humanenvironmental interaction, environmental hazards, and natural resources.
Satisfies the GE B. 3 Physical Universe requirement.
Not open for credit to students with credit in GEOG 150. (CAN GEOG 2)
160. Introduction to Human Geography (3)

Prerequisite/Corequisite: One G.E. Foundation course.
Geographic aspects of culture, including the past and present social, political and economic factors that are related to human perception, organization and use of the environment.
(CAN GEOG 4)
200. Introduction to Research Methods for Geographers (3)

Introduction to the scientific method in geography, with an emphasis on basic quantitative and qualitative techniques and their applications.
Not open for credit to student with credit in first course in statistics. (2 hours lecture, 2 hours laboratory).

## 250. Early World Historical Geography (4)

Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students.
Emergence and changing nature of urban life, cultural and technological diffusions, and variations in the intensity of contact and exchange among cultures and civilizations over time. Geographic and historical factors, such as location and place, human/environment interactions, migrations, and diffusion.
Same as HIST 250.

## 280. Introduction to Geospatial Techniques (3)

Introduction to geospatial techniques, which include geographic information science (GIS), cartography, global positioning systems (GPS), and remote sensing. Students will be introduced to the geographic concepts required for spatial analysis.
(3 hours lecture.)

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course.

## 301I. The Urban Scene (3)

Prerequisites: ENGL 100 and upper division status.
Analysis of urban life-styles; land use and design; population trends; conflicts in the increasingly multicultural urban setting; housing and community development; suburban-central city relationships; human utilization of urban life spaces; opinions of landmark urbanists; and future trends.
Not open for credit to students with credit in SOC 419. Same course as U/ST 301I.

## 304. California (3)

California's diverse natural and cultural environment with emphasis upon social and economic problems and the human response to environmental hazards.

## 306. United States and Canada (3)

Common social, economic and political interests of the major human use regions of the United States and Canada. Describes and interprets the culture patterns of each region in relation to the natural settings in which they have developed.

## 307. Modernization in Global Perspective (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Exploration of the ways in which current psychological and material problems in modern society (both western and Third World) can be traced to a process of accelerating change which began with the advance of technology, the rise of capitalism, the abandonment of "old values," the increasing complexity of bureaucracy and a lowering of social barriers. Exploration of all facets of modernization utilizing films, discussions and readings (fiction and nonfiction).

## 308I. Africa South of the Sahara (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Human and environmental settings of Africa South of Sahara and the ecological, cultural, demographic, economic settlement and political relationships that characterize them.

## 309I. The Middle East and North Africa (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Human and physical settings of the Middle East and North Africa and the cultural, economic, settlement, and political relationships that characterize them stressing those factors which underlie the region's instability and global importance.

## 313I. Southeast Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status.
Cross-cultural examination of the characteristics and problems found across Southeast Asia, specifically, environmental and cultural patterns, historical development of the spatial organization of society, demographic and other dynamics of social change, and issues of socio-economic and political development.
Letter grade only (A-F).

## 314I. South Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status.
Cross-cultural examination of the characteristics and problems found across South Asia, specifically, environmental and cultural patterns, historical development of the spatial organization of society, demographic and other dynamics of social change, and issues of socio-economic and political development. This course will satisfy an interdisciplinary capstone requirement.
Letter grade only (A-F).
315I. East Asia (3)
Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status.
Cross-cultural examination of the characteristics and problems found across East Asia, specifically, environmental and cultural patterns, historical development of the spatial organization of society, demographic and other dynamics of social change, andissues of socio-economic and political development.
Letter grade only (A-F).

## 316. Europe (3)

The human and physical patterns of Europe. Current cultural conditions and environmental problems.

## 318. Russia and Its Neighbors (3)

Systematic and regional study of the physical, economic and cultural geography of the countries of the former Soviet Union.

## 319I. International Development (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, upper-division standing.
Theoretical and practical analysis of social, political, and economic development and alternative developmental models. Contemporary and historical comparisons of how "developed" and "developing" areas of the world have confronted various economic, social, and political challenges.
Same course as I/ST 319 I.

## 320. Latin America (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Human and environmental characteristics of Middle and South America with a focus on the historical-cultural factors which shaped their present-day societies and the problems of population growth, resource utilization and economic development.

## 321. Geography of Mexico, Central America and the

 Caribbean (3)Prerequisites: GEOG 100 or 160 . GEOG 360 highly recommended.
Examines Mexico, Central America and the Caribbean from a regional geographical perspective. Utilizing both historical and contemporary points of view, it identifies and interprets the distinguishing environmental, demographic, cultural, social, economic, and geopolitical characteristics of the region.
Not open to students who have taken GEOG 320I. Letter grade only (A-F).

## 322. Geography of South America (3)

Prerequisite: GEOG 100 or 160 . GEOG 360 and 366 highly recommended.
Examines South American from a regional geographical perspective. Utilizing both historical and contemporary points of view, it identifies and interprets the distinguishing environmental, demographic, cultural, social, economic, and geopolitical characteristics of the region.
Not open for credit to students who have credit in GEOG 3201 . Letter grade only (A-F).

## 340. Environmental Geography (3)

Prerequisite: GEOG 140 or 280.
Examines interrelationships between society and land and water environments. Focuses is on critical analysis of contemporary environmental issues in American West, including both physical and human factors.
Letter grade only (A-F).

## 326. Pacific Island Area (3)

Regional synthesis of the physical and cultural geography of Australia, New Zealand and the island groups of Oceania.

## 352. Geography of Travel and Tourism (3)

Historical and comtemporary spatial characteristics and dimensions of tourism activity. Tourism, destinations, travel patterns, environmental and economic impacts, and analysis of regional tourism patterns.

## 355I. International Environmental Issues (3)

Prerequisites: Completion of the GE Foundation, one Explorations course, and upper division standing.
Examines the deterioration, destruction, maintenance and restoration of environmental systems and resources. Identifies and analyzes major environmental problems that have international dimensions. Investigates ongoing and potential efforts to resolve them.
Same course as I/ST355I.

## 360. Human Geography (3)

Prerequisites: GEOG 100, 120, or 160.
Introduces breadth of research across subfields of human geography through examination of various contemporary topics, such as migration, globalization, cultural landscapes, urbanization, politics, agricultural practices, and development.
Letter grade only (A-F).

## 366. Introduction to Urban Geography (3)

Prerequisites: GEOG 100, 120, 160 or 360 or consent of instructor.
Examines cities and urban phenomena from geographical perspective. Introduces core theories, concepts and techniques that geographers have developed to explain the origin, growth, functions, and character of urban places especially in North America.
Letter grade only (A-F).

## 380. Map Interpretation and Analysis (3)

Interpretation and understanding of maps as graphic communication with emphasis on critical analysis, symbolization, scale, projection.
(Lecture, problems 3 hours)
*381. Maps and Civilization (3)
Maps and Civilization examines the role maps play in different cultures.
Drawing upon the disciplines of cartography, geography, history, art, and science, it explores maps in Western and non-Western cultures; conventional and alternative cartographies; and mapping activities of men and women.
Letter grade only (A-F).
*400. Geographical Analysis (4)
Prerequisite: GEOG 200 or any introductory statistics course or consent of instructor.
Examination of advanced quantitative techniques employed by geographers in analysis of spatial phenomena. Topics covered include multivariate statistical methods as models for geographical analysis. Emphasis on the application of these techniques in geographical research, using statistical software.
( 3 hours seminar and 2 hours laboratory).

## 402. Qualitative Geographic Analysis (4)

Prerequisite: GEOG 200, or consent of instructor.
Examines qualitative geographic methodologies and methods through the theoretical frameworks that geographers employ in their research. Introduces survey, interview, and focus group techniques, textual analysis, participant observation, and ethnography. Includes a hands-on research experience.
(4 hours discussion). Letter grade only (A-F).
440./540. Land and Water Environments (3)

Prerequisites: GEOG 140 and 380 or consent of instructor. (Undergraduates register in GEOG 440; graduates register in GEOG 540.)

Landforms and related soil and water resources as physical components of the human environment.
(Lecture-problems and field experience.)

## *442. Biogeography (3)

Prerequisite: GEOG 140. A course in biology, ecology or Geography 340 is strongly recommended.
Theories and methods of mapping plant and animal distributions, spatial interaction of species with environmental limiting factors, and the human role in temporal and spatial variation of ecosystems.
(Lec-problems; field experience.)

## 443. Watersheds: Processes and Management (4)

Prerequisites: GEOG 140 or consent of instructor.
Basic principles of watershed hydrology, including hydrologic processes, runoff behavior, precipitation patterns and watershed models. Evaluation of water quality elements such as nonpoint source pollution. Laboratory and field exercises will include hydrologic data collection, processing and evaluation.
(3 hours Lecture, 2 hours Laboratory.)
*444. Climatology (3)
Prerequisites: GEOG 140.
Descriptive and explanatory analysis of elements and controls of climate. Climates of world emphasis on California and North America.
(Lecture, problems 3 hours)

## 445. Palaeoclimatology (4)

Prerequisites: GEOG 444 or consent of instructor.
Methods and theories used in reconstructing and dating climates of the past 2 million years, using such proxies as sediment sequences, packrat middens, ice cores, tree rings, corals, and documentary data. Causes of environmental change and human interactions are analyzed.
(Lecture 3 hours, lab activities 2 hours.)

## *446. Land Use Planning (3)

Examines land use planning, issues and responses concerning land use; coastal zones; environmental resource management; urban growth; design and aesthetics; planning parameters for residences, parks, conservation areas, shopping centers, and industrial areas; urban and regional revitalization, and transportation.
Not open for credit to students with credit in U/ST 446. Same course as U/ST 446.

## 447. Landscape Restoration (3)

Prerequisites: GEOG 140 or 280 . GEOG 340 or 355 highly recommended. A course in ecology or biogeography recommended.
Explores philosophical, political, and ecological issues associated with restoring degraded landscapes. Analysis of theoretical works, scientific research, planning documents and case studies. Examines potential for restoring natural landscapes.
Letter grade only (A-F).

## 452. Geography of the Global Economy (3)

Prerequisite: GEOG 360 highly recommended.
Examines globalization processes that create integration of world's economic, political, and cultural systems, but operate unevenly across space and time. Focuses on impact on people and places around the world.
(Lecture, problems.) Letter grade only (A-F).
*455. People As Agents of Environmental Change (3)
Examines human impact on biophysical environment from long-term and global perspective. Explores regional and global implications of these changes on people and environments. Examines different theories for explaining major human forces that drive environmental change.
(Lecture 3 hours.)

## 458./558. Hazards and Risk Management (3)

Prerequisites: One earth science course (GEOG 140 or GEOL 102 or 190 or consent of instructor) and one social science course (e.g., GEOG 100 or 160 or consent of instructor).
Broad overview of hazards and disasters, whether natural or technological, emphasizing the physical and social dynamics that interact to produce hazard, the spatial and temporal distributions of various hazards, and policy options for disaster preparation, loss reduction, and community resilience.

## *460. Population Geography (3)

Introduction to geographic study of population. Includes growth and distribution of world population; results of changing births, deaths, and migration; variations in population composition; related problems such as food supplies and environmental deterioration.

## 465./565. Social Geography (3)

Prerequisite: GEOG 160 or consent of instructor.
The geographies of society, including various methodological and theoretical approaches to social geography. Topics may include socio-spatial inequality, crime, housing, religious systems, medical and health geography, feminist geography, the geography of sexuality, the geography of race, or poststructuralist geography.
*466. Urban Geography: Principles (3)
Examination of cities: their location, shape, structure and function. Selected world population clusters, theoretical and practical application of urban planning and the evolution of cities are studied. (Lecture, problems.)
467./567. Urban Geography: Metropolitan Problems (3)

Prerequisite: GEOG 466 or consent of instructor. (Undergraduates register in GEOG 467; graduates register in GEOG 567.)
Geographic components of metropolitan problems and their solutions. Problems related to transportation systems, housing, evolution of ghettos, urban perception and behavioral patterns will be discussed in terms of theoretical and practically applied urban planning solutions.
(Lecture, problems 3 hrs.)

## 468. World Cities/Cities of the World (3)

Prerequisites: GEOG 100, 120 or 160 . GEOG 360 and 366 highly recommended.
Comparative examination of major world cities within the context of their regional and national urban systems. Compares and contrasts cities of developed and developing worlds. Explores divergent urbanization patterns and world city development in major cultural realms.
Letter grade only (A-F).

## *470. Political Geography (3)

Prerequisite: GEOG 100 or consent of instructor.
Comparative study of the earth's politically organized regions and related systems. Varied approaches are explored, such as power analysis, genetic analysis, and functional analysis of political units. Stresses political geographic concepts used in analyzing the viability of states and nations.
(Lecture, problems.)
*473. Remote Sensing (4)
Prerequisites: GEOG 200 or equivalent and GEOG 380 or consent of instructor.
Interpretation and processing of remotely sensed imagery including acquisition or imagery, the electomagnetic spectrum, kinds of imagery, and digital method.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

## *474. Introduction to Digital Image Processing (4)

Prerequisites: GEOG 140 and 473 or consent of the instructor.
Provides a background to the principles and concepts of digital image processing and the extraction of information from digital satellite data with focus various enhancement and extraction techniques, specifically, within the visible and near-infrared portions of the electromagnetic spectrum.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

## 475. Geographical Applications in Remote Sensing (4)

Prerequisites: GEOG 140, 160, 473, and 474.
Focuses on remote sensing applications. Students will be introduced to sophisticated imagery and analysis techniques, as applied to weather and fire modeling, arid lands environmental problems, or the urban environment.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

## *481. Geographic Information Science for Natural Sciences (4)

Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or BIOL 153 or 211B or GEOL 102.
Introduces fundamentals of geographic information science and systems (GIS) to non-geography students, including concepts and skills in spatial reasoning and spatial thinking. Explores GIS in spatial query, problem analysis and decision support, using biologic, geologic, and ecologic applications.
(2 hours of seminar, 2 hours of computer laboratory.)

## *482. Map Design for Presentation and GIS (4)

Prerequisites: GEOG 200 or equivalent and 380 or consent of instructor.

Theory and techniques in the creation of thematic maps including design, generalization, and symbolization, with an emphasis on computer presentation methods.
(Seminar 3 hours, laboratory 2 hours).

## 484./584. Advanced Concepts in Presentation Cartography (4)

Prerequisites: GEOG 140, 160, 473, AND 474. Prerequisites: GEOG 200 or equivalent; GEOG 380; and GEOG 482.

Advanced theory and techniques for presentation cartography including communication, visualization, terrain representation, animation, and color.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).
485./585. Principles of Geographic Information Science (4)

Prerequisites: GEOG 200 or equivalent; GEOG 380 and GEOG 482.
Fundamental concepts and techniques of geographic information systems and science are introduced. Emphasizes spatial analyses to address spatial questions.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).
*486. Field Methods in Landscape Analysis (4)
Prerequisite: GEOG 380 or consent of instructor.
Introduction to field techniques, including formulation of field plans, recording direct observation, field mapping, sampling techniques, interviewing, and organizing and evaluating data for presentation. (Lecture-discussion 1 hour, supervised field work 6 hours)

## 487A. Applications of Geographic Information Science (GIS): Environment and Natural Resources (4)

Prerequisites: GEOG 140; 485 or 585,488 or 588 or consent of instructor.
Use of Geographic Information Systems and science for spatial query, problem analysis, spatial modeling and decision support in natural resource assessment. Students who possess a background in GIS are introduced to environmental applications. Emphasizes the use of raster GIS.
(3 hours Lecture, 2 hours Laboratory.)

## 487B. Applications of Geographic Information Science (GIS): Urban and Economic (4) <br> Prerequisites: GEOG 485 or 585,488 or 588 or consent of instructor.

Builds on introductory knowledge of Geographic Information
Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses.
(3 hoursLecture, 2 hours Laboratory.)

## 488./588. Advanced Topics in Geographic Information

 Science (4)Prerequisites: GEOG 200 or equivalent; 380, 482, 485 or 585 or consent of instructor.
Advanced concepts in geographic information systems and techniques are introduced and their applications in geography and related disciplines explored
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

## *492. Internship in Applied Geography (3)

Prerequisites: Geography major with upper division or graduate standing, prior geography coursework or equivalent recommended, and consent of instructor.

Community-based placement to enhance professional preparation in applied geography.
May be repeated to a maximum of 6 units; a second semester experience shall differ substantially from first semester experience. Undergraduates may elect Credit/No Credit or letter grading; letter grading only is required for graduate students. Student will work under faculty supervision.

## *494. Special Topics (1-3)

Prerequisite: Consent of instructor.
Application of geographical concepts and methodology to selected contemporary problems.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with consent of department chairperson. May not be credited toward the major in geography without written department consent in advance of enrollment.
*497. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Individually directed studies of special problems in geography.
May be repeated to a maximum of 6 units with consent of department chairperson. May not be credited toward the major in geography without written department consent in advance of enrollment.

## GRADUATE LEVEL

## 502. Qualitative Geographic Analysis (4)

Prerequisites: GEOG 200, or consent of instructor.
Examines qualitative geographic methodologies and methods through the theoretical frameworks that geographers employ in their research. Introduces survey, interview, and focus group techniques, textual analysis, participant observation, and ethnography. Includes a hands-on research experience.
(4 hours discussion). Letter grade only (A-F).
540./440. Land and Water Environments (3)

Prerequisites: GEOG 140 and 380 or consent of instructor. (Undergraduates register in GEOG 440; graduates register in GEOG 540.)
Landforms and related soil and water resources as physical components of the human environment.
(Lecture-problems and field experience.) Letter grade only (A-F).

## 543. Watersheds: Processes and Management (4)

Prerequisites: GEOG 140 or consent of instructor.
Basic principles of watershed hydrology, including hydrologic processes, runoff behavior, precipitation patterns and watershed models. Evaluation of water quality elements such as nonpoint source pollution. Laboratory and field exercises will include hydrologic data collection, processing and evaluation.
(3 hours Lecture, 2 hours Laboratory.)

## 545. Palaeoclimatology (4)

Prerequisites: GEOG 444 or consent of instructor.
Reconstructing and dating past climates, climate changes, and their environmental impacts, using such proxies as sediment sequences, packrat middens, ice cores, tree rings, corals, and documentary data.. Earth's changing orbital parameters, internal forcing mechanisms, and human factors are analyzed.
(Lecture 3 hours, lab activities 2 hours.)

## 558./458. Hazards and Risk Management

Prerequisites: One earth science course (GEOG 140 or GEOL 102 or 190 or consent of instructor) and one social science course (e.g., GEOG 100 or 160 or consent of instructor).

Broad overview of hazards and disasters, whether natural or technological, emphasizing the physical and social dynamics that interact to produce hazard, the spatial and temporal distributions of various hazards, and policy options for disaster preparation, loss reduction, and community resilience.

## 565./465. Social Geography

Prerequisites: GEOG 160 or consent of instructor.
The geographies of society, including various methodological and theoretical approaches to social geography. Topics may include socio-spatial inequality, crime, housing, religious systems, medical and health geography, feminist geography, the geography of sexuality, the geography of race, or poststructuralist geography.
567./467. Urban Geography: Metropolitan Problems (3)

Prerequisite: GEOG 466 or consent of instructor. (Undergraduates register in GEOG 467; graduates register in GEOG 567.)
Geographic components of metropolitan problems and their solutions. Problems related to transportation systems, housing, evolution of ghettos, urban perception and behavioral patterns will be discussed in terms of theoretical and practically applied urban planning solutions.
(Lecture, problems 3 hrs ) Letter grade only (A-F).

## 575. Geographical Applications in Remote Sensing (4)

Prerequisites: GEOG 140, 160, 473, and 474.
Focuses on remote sensing applications. Students will be introduced to sophisticated imagery and analysis techniques, as applied to weather and fire modeling, arid lands environmental problems, or the urban environment.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).
584./484. Advanced Concepts in Presentation

Cartography (4)
Prerequisites: GEOG 200 or equivalent; 380 and 482.
Advanced theory and techniques for presentation cartography including communication, visualization, terrain representation, animation, and color.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).
585./485. Principles of Geographic Information Science (4)

Prerequisites: GEOG 200 or equivalent; 380 and 482.
Fundamental concepts and techniques of geographic information systems and science are introduced. Emphasizes spatial analyses to address spatial questions.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

## 586. Field Methods in Landscape Analysis (4)

Prerequisite: GEOG 380 or consent of the instructor. Introduction to field techniques, including formulation of field plans, recording direct observation, field mapping, sampling techniques, interviewing, and organzing and evaluating data for presentation. (Seminar 1 hour; Field Work 6 hours). Letter grade only (A-F).
587A. Applications of Geographic Information Science (GIS): Environment and Natural Resources(4)
Prerequisites: GEOG 140; 485 or 585 , 488 or 588 or consent of instructor.
The use of Geographic Information Systems and science for spatial query, problem analysis, spatial modeling and decision support in natural resource assessment. Students who possess a background in GIS are introduced to environmental applications. Emphasizes the use of raster GIS.
(3 hours Lecture, 2 hours of Laboratory.)
587B. Applications of Geographic Information Science (GIS): Urban and Economic (4)
Prerequisites: GEOG 485 or 585,488 or 588 or consent of instructor.
Builds on introductory knowledge of Geographic Information Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses.
(3 hours Lecture, 2 hours Computer Laboratory.)

## 588./488. Advanced Topics in Geographic Information

 Science (4)Prerequisites: GEOG 200 or equivalent; 380, 482, 485 or 585 or consent of the instructor.
Advanced concepts in geographic information systems and techniques are introduced and their applications in geography and related discipline explored.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).
596. Geographic Thought and Literature (3)

Prerequisite: Consent of instructor.
Proseminar in the history of 20th century Anglophone geographic thought with emphasis on the theoretical and subdisciplinary perspectives current in the field today.
Letter grade only (A-F).

## 600. Seminar in Regional Geography (3)

Prerequisite: Consent of instructor.
Regional methods of study common to geographic research, and their utilization in developing regional concepts. Letter grade only (A-F).
Letter grade only (A-F).

## 640. Seminar in Physical Geography (3)

Prerequisite: Consent of instructor.
Physical/environmental issues and problems.
May be repeated to a maximum of 6 units with consent of departmental advisor. Letter grade only (A-F).

## 650. Seminar in Cultural Geography (3)

Prerequisite: Consent of instructor.
Systematic investigation of human occupancy in its varied environmental and regional settings.
May be repeated to a maximum of 6 units with consent of department advisor. Letter grade only (A-F).

## 666. Seminar in Urban Geography (3)

Prerequisite: Consent of instructor.
Geographic concepts and techniques of research applied to specific urban areas.
May be repeated to a maximum of 6 units with consent of department advisor. Letter grade only (A-F).

## 680. Seminar in Geospatial Science (3)

Prerequisite: Consent of instructor.
Application of geographic concepts and methodology to selected cartographic, GIS, remote sensing, and spatial analytic problems.
May be repeated to a maximum of 6 units with consent of departmental advisor. Letter grade only (A-F).
696. Seminar in Geographical Research Methods (3)

Prerequisites: GEOG 596, graduate status in geography, and concent instructor.
Critical survey of contemporary methodologies available for framing research in geography, emphasizing the connection between research models, research questions, and the selection and limitations of particular methods, techniques, and data.
Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor.
Research in geography supervised on an individual basis.
Letter grade only (A-F).
698. Thesis (1-6)

Prerequisite: Consent of instructor.
Planning, preparation and completion of thesis for the master's degree.

Urban and Regional Studies Courses (U/ST)

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course.
301I. The Urban Scene (3)
Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Analysis of urban life-styles; land use and design; population trends; conflicts in the increasingly multicultural urban setting; housing and community development; suburban-central city relationships; human utilization of urban life spaces; opinions of landmark urbanists; and future trends.
Not open for credit to students with credit in SOC 419. Same course as GEOG 301I.
*446. Land Use Planning (3)
Examines land use planning, issues and responses concerning land use; coastal zones ; environmental resource management; urban growth; design and aesthetics; planning parameters for residences, parks, conservation areas, shopping centers, and industrial areas; urban and regional revitalization, and transportation.
Not open for credit to students with credit in U/ST 490. Same course as GEOG 446.

## GEOLOGICAL SCIENCES <br> College of Natural Sciences and Mathematics

Department Chair<br>Stanley C. Finney<br>Department Office<br>Peterson Hall (PH) 3-102A<br>Telephone/FAX<br>(562) 985-4809 / (562) 985-8638<br>Website<br>http://seis.natsci.csulb.edu/department/deptwebpage.html<br>Faculty<br>Professors<br>Elizabeth L. Ambos, Richard J. Behl, Stanley C. Finney, R.D. Francis, Roswitha B. Grannell, Jack Green<br>\section*{Assistant Professors}<br>Gregory J. Holk, Thomas Kelty, Lora Stevens<br>Administrative Support Coordinator<br>Margaret Costello<br>Undergraduate Advisor<br>Richard J. Behl<br>Credential Advisor<br>Laura Henriques, James Kisiel<br>Graduate Advisor<br>Robert D. Francis

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

The Geological Sciences includes the study of the solid earth, the hydrosphere, and the atmosphere. Within the broad field of Geological Science students may elect to take course work leading to professional careers in such areas as geohydrology, environmental geology, urban geology, engineering geology, petroleum geology, mineral exploration, and government service. The degree programs also prepare students for academic careers in schools or universities, although additional work is usually required for such careers. All Earth Science and Geology majors must contact the Undergraduate Advisor prior to the first semester in residence.

The Geological Sciences Department participates in the Southern California Marine Institute for our new marine geology, oceanography, seismic studies. See the Ocean Studies Institute section of this Catalog for additional information.

## Concurrent and/or Summer Enrollment at Another College

Students who wish to take course work at a community or another college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate Department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with. See 'Concurrent Enrollment' and 'Transfer of Undergraduate Credit' in this Catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

## Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' Science Safari to Success (for first-time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics; (for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Jensen Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Geology (code GEOLBS01) (124-132 units)

The bachelor of science degree program is intended to provide a thorough background in the geological sciences for those planning to pursue careers in industry or to do graduate study. The program is designed with the conviction that, in an ever-changing and technologically-oriented industry and research environment, a student must have a strong geological background. As such, he/she needs a program that explores the fundamental geological processes, cultivates skills in integrative three-dimensional geological thinking, provides laboratory and field experience, and stimulates interest in the many subdisciplines of the geological sciences.

Within the broad field of geology, students may elect to follow any one of five emphases: General Geology, Petroleum Geology, Stratigraphy/Sedimentology, Geochemistry/ Mineralogy-Petrology, and Structural Geology/Tectonics. Each student should contact the undergraduate advisor for assistance in planning the degree program.

Geology majors must receive a grade of "C" or better in all courses required for the major. A minimum of 124-132 units is required for the bachelor of science degree in the various emphases in geology. Emphases other than General

Geology are based on the General Geology emphasis, but have structured electives and other variations from that plan. An additional course chosen with the consent of the undergraduate advisor may be recommended for individual emphases. Transfer students should fulfill, prior to transferring, the appropriate lower division curricular requirements as outlined in later sections. Particular attention should be paid to fulfilling the lower division math, chemistry, physics, and biology requirements.

Lower Division: GEOL 102, 104, 240, 250, 273; MATH 122, 123; CHEM 111A,B; PHYS 151, 152; BIOL 200. Additional required courses for the various emphases are listed below.

Upper Division: GEOL 322, 341, 428, 433, 443, 450, 460, 461. Additional required courses for the various emphases are listed below.

1. General Geology (124 units): Six units of elective courses (normally at upper division) approved in advance by the undergraduate advisor.
2. Petroleum Geology (129 units): MATH 224; GEOL 420, 471.
3. Stratigraphy/Sedimentology ( 128 units): GEOL 364, 364L, 420, 424.
4. Geochemistry/Mineralogy-Petrology (132 units): MATH 224; CHEM 371A,B; GEOL 422.
5. Structural Geology/Tectonics (131 units): GEOL 430, 462; MATH 224, 370A.

## Minor in Geology (code GEOLUM01)

The Minor in Geology is available to any non-Geology major.

Twenty units in geology courses that must include: Lower Division: GEOL 102, 104, 240.
Upper Division: At least 9 additional units of geology approved in advance by the Undergraduate Advisor.

## Bachelor of Science in Earth Science (code GEOLBS02) (128-132 units)

The Earth Science program prepares students to understand the natural environment, earth resources, land and ocean use, pollution, geology of the sea floor, and other areas of critical importance to present and future world problems. Career-oriented interdisciplinary emphases are offered in Geohydrology/Environmental Geology, Engineering Geology, Exploration Geophysics, and Marine Geology/Oceanography.

Earth Science majors must receive a grade of " $C$ " or better in all courses required for the major. As outlined below, a minimum of 128 units is required for the various emphases in Earth Science.

Lower Division: GEOL 102, 104, 240, 250, 273; MATH 122, 123, 224; CHEM 111A; PHYS 151, 152. Additional required courses for the various emphases are listed below. Upper Division: GEOL 322, 428, 433, 443, 460. Additional required courses for the various emphases are listed below. 1. Geohydrology/Environmental Geology (131 units): MICR 200; CHEM 111B; C E 205, 335, 336; GEOL 450, 461, 477; ES P 300I.
2. Engineering Geology (132 units): BIOL 200; CHEM 111B; C E 205, 345, 346, 445; MAE 373; GEOL 450, 477.
3. Exploration Geophysics ( 132 units): BIOL 200; MATH 247, 370A; PHYS 310, 340A, 402; GEOL 462; and 8 units selected in consultation with the undergraduate advisor.
4. Marine Geology/Oceanography ( 128 units): BIOL 200; CHEM 111B; GEOL 341, 364, 364L, 461, 465, 466, 496.

## Teaching Credential

## Requirements Related to a Geoscience Concentration

The Geosciences Concentration meets the subject matter competence requirement for the Single Subject Preliminary Credential in Geosciences (code 182). Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Geoscience teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb. edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Geosciences Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: ASTR 100; BIOL 211A,B; CHEM 111A,B; GEOL 102, 104, 160, 273; PHYS 151, 152; MATH 122, 123. Upper Division: GEOL 341, 443, 428, 433, 450; SCED 403.

## GRADUATE PROGRAMS

## Master of Science in Geology (code GEOLMS01)

The Department of Geological Sciences offers a comprehensive program of courses coupled with appropriate thesis projects leading to the Master of Science in Geology. Within geology, students specialize in any of a number of sub-disciplines including engineering geology, environmental geochemistry, geology, hydrogeology, marine geology, mineralogy and petrology, paleontology, petroleum geology, sedimentology, stratigraphy, structural and field geology, and volcanology. In addition, a formal emphasis in geophysics is available. Students may include in their studies courses offered by other departments at CSULB, or courses at California State University Northridge and California State University Los Angeles; CSULB participates with both universities in a joint Master's program.

The objectives of the Master of Science in Geology are (1) to train individuals with the competence required by the geological profession for employment in industry and government agencies, (2) to enable promising students to attain a level of knowledge and research ability required for
admission to Ph.D. programs at other universities, and (3) to provide course work and research experience necessary for students planning to teach geology at the community college level.

## Emphasis in Geophysics

The emphasis in geophysics is available for students wishing to specialize in the application of geophysical principles to the solution of problems in engineering geology, geohydrology, structural geology, tectonics, petroleum geology, and mineral exploration. Students following this Emphasis are expected to have completed the equivalent of course work required for the B.S. in Earth Science, Geophysics emphasis, and additionally to complete M.S. requirements with a program of geophysical course work approved in advance by both the graduate advisor and a geophysics advisor. Appropriate B.S. programs which provide training suitable for completion of the M.S. in Geology, Geophysics Emphasis, include Civil and Electrical Engineering, Physics, Mathematics, and Geology in addition to Geophysics, although some deficiencies will exist in these alternate programs. Students should confer with the graduate advisor about this program.

## Departmental Resources

The CSULB Department of Geological Sciences is very well equipped for a wide variety of field, laboratory, and analytical research. Equipment and facilities include: an 1100 sf geochemistry clean lab with chromatography columns for trace element and isotopic studies, two HP gas chromatographs, a UV spectrophotometer, Cary Vis/UV spectrophotometer, a CHN elemental analyzer, IR Mass Spectrometer, Analytical Environmental Scanning Electron microscope, vacuum extraction lines for oxygen and carbon isotope studies of carbonate and silicate minerals, three X-ray diffractometers, petrographic thin section-making equipment and microdrill system, a fluid inclusion heating/ freezing stage, a PIMA portable infrared spectrometer, a marine multi-channel seismic reflection system that includes a digital 24-channel hydrophone streamer and uniboom and sparker energy sources, a total station laser surveying system, a precision GPS receiver and processing software, a high-precision LaCoste-Romberg gravimeter, a landbased seismic reflection/refraction system with weightdrop energy source and 24-channel land seismic data acquisition system, two 8-passenger 4WD field vehicles, Linux workstations and SIOSEIS seismic data processing software, 3D subsurface visualization and mapping software for seismic and well logs (Kingdom Suite; 12-station network license), a 24 -station computer lab (PC and Macintosh) with high-speed internet connection, laser printers, a digitizer tablet, a 42" HP color inkjet printer/plotter, GIS software (MapInfo and Arcview), desktop publishing and statistical software. The Department operates the Los Angeles Basin Subsurface Data Center, a well log and subsurface data repository with logs on 14,000 wells in southern California, and offshore seismic data. The Department also has access to three ocean-going research vessels, support staff, and dockside facilities of the Southern California Marine Institute (SCMI), a consortium of several California State University campuses, University of Southern California, and Occidental College.

## Admission to the Program

The basic requirement for admission to the graduate program is possession of a bachelor's degree or equivalent in geology or earth sciences comparable to degrees offered at CSULB. The student normally will be expected to have completed as an undergraduate acceptable work in certain basic lower division and upper division subjects. Lower division subjects include calculus, calculus-based physics, chemistry, biology, computer programming and statistics. Upper division subjects depend on the degree emphasis and sub-discipline to be followed by the student, and generally include (but may not be limited to) courses required by the corresponding undergraduate emphases. Students who are missing some of this course work may be admitted to the program but will be expected to remove deficiencies or present acceptable alternatives.

In addition to the above course work requirements, students are required to take the General test of the Graduate Record Examination and to submit three letters of recommendation prior to entry.

Prospective graduate students in the geological sciences, including CSULB graduates, must formally apply for admission to CSULB as described previously in this Catalog and must also apply directly to the Department of Geological Sciences. All applicants must submit the following documents directly to the Department no later than July 1 for the fall semester or December 1 for the spring semester to receive consideration for admission:

1. Department Application Form, available from the Department Office;
2. Official transcripts of all college level academic work including that done at CSULB, in addition to those transcripts required for general graduate admission to CSULB;
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential;
4. Official reports of scores on the General test of the Graduate Record Examination.
A limited number of assistant/associateships are available to fund graduate studies in the Department of Geological Sciences. Applicants wishing to be considered for one of these positions must submit all application materials to the Department Office no later than July 1 for the Fall semester or December 1 for the Spring semester.

Students not meeting the Department's admissions standards or application requirements may be admitted on probationary status on a case-by-case basis. Those students will be expected to maintain the same high academic standards as fully admitted students. After two semesters, students admitted on probationary status will be re-evaluated for full admission to the Department.

## Initiation of Graduate Study

Students are responsible for all University and Department regulations governing master's degrees as outlined in this Catalog. The regulations governing the degree are those in effect at the time of advancement to candidacy. Until that time, students are governed by the most current Catalog. The advising of incoming graduate students is carried out by the graduate advisor, who
explains the requirements of the program and carries out initial academic advising. It is required that the student arrange for this initial advising before or during his/her first semester.

All entering students must take GEOL 500 (Introductory Graduate Seminar) during their first Fall semester. This course consists of faculty-given seminars that introduce new students to the Department and to the faculty and their research. One purpose of this is to encourage the student to find a thesis topic and thesis advisor by the end of the second semester. This is done with the help of the graduate advisor once the student has chosen a sub-discipline or option in which to specialize.

Students are required to maintain a GPA of 3.0 or higher at all times. If at any time a student's GPA drops below 3.0, that student will immediately be placed on probation for a maximum of two semesters. If the student does not bring the GPA back up to 3.0 during the probationary period, he/she will not be allowed to continue as a graduate student in this Department. In order for a student to regain status in the Department after failing to maintain this academic standard, he/she must formally reapply for Department admission.

## Advancement to Candidacy

A student must have been advanced to candidacy before initiating formal thesis research necessary to complete the M.S. degree. Students are expected to be advanced by the end of their fourth semester. Students may petition the Department for an extension of the four semester time limit on a semester by semester basis. Students should be aware, however, that they are at risk of not receiving credit toward their graduate programs for research started or courses taken prior to advancement. Students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and have advanced to candidacy before they apply for graduation. Requests to graduate must be received during the preceding May for Spring/Summer graduation or preceding December for Fall graduation. Filings after the deadlines are not accepted.

Before advancement can proceed, a thesis topic, committee, and graduate program consisting of at least 30 units (see below) must be established by the student and the prospective thesis committee chair. In addition, the following requirements must be met:

1. Prior completion of all deficiencies or incompletes. This includes courses required in the undergraduate major for the emphasis in which the student is pursuing graduate research, as well as additional courses specified by the thesis advisor.
2. Completion of six units of graduate level courses with a 3.0 or higher grade point average and attainment of a 3.0 or higher grade point average in all upper division and graduate work attempted, as well as in courses to be listed in the student's graduate academic program (see below).
3. A passing grade in GEOL 500.
4. Satisfying the Graduation Writing Assessment Requirement (GWAR).
5. Successful completion of an oral qualifying examination given by the student's thesis committee, and acceptance
of a written proposal for the thesis research. The student's thesis topic will be the subject of the examination.
Once the above requirements are met, advancement to candidacy proceeds with approval of the committee, graduate advisor, Department Chair and Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics. After the student has been advanced, no course work in addition to that specified in the graduate program may be required of the student. In order for a student to change thesis director, topic, committee members, or courses in the graduate program, approval must be obtained. Under some circumstances this may mean that additional courses are required.

## Requirements of Graduate Academic Program

The graduate academic program consists of at least 30 units of courses and is finalized when the student advances to candidacy. Although courses that will eventually become part of the student's academic program may be taken before advancement, it is strongly recommended that students make up any undergraduate deficiencies first, and then advance as early as possible. The program proposed by the thesis committee chair and the student must be approved by the thesis committee, Graduate Advisor, Department Chair, Associate Dean for Graduate Accountability and Dean of Graduate Studies. Six units of GEOL 698 (Thesis) must be taken as part of the program. Directed Research, GEOL 697, may account for up to three units, but normally cannot be taken before the student completes 12 units of the graduate program with a grade point average of 3.0 or higher.

A minimum of 18 units of 500 or 600 level courses, including Thesis, must be completed; the remaining units ( 12 or less) may be $300,400,500$, or 600 level courses, although courses at 300 level in the Department may not be used in the program. Units may be taken at other universities if suitable courses are not offered at CSULB. Appropriate courses from related areas in science, mathematics, or engineering may be substituted within limits with consent of the Department.

## Thesis Defense

All M.S. students are required to submit a thesis that conforms to the University and Department guidelines. The thesis should document the systematic study of a significant geological problem; evidence originality and critical, independent thinking; and conform to appropriate and accepted organization, format, and writing style. Each student should discuss thesis format with his/her thesis committee chair.

All M.S. students are also required to present the results of their research orally. With prior approval, this presentation can take one of many possible formats, including a departmental seminar, a presentation at a regional or national meeting, or a formal thesis defense. The student must schedule his/her presentation at least two weeks in advance, and with the approval of the thesis committee chair (and thesis director). The date of the presentation must precede the filing deadline for the semester in which the student plans to graduate.

## Courses (GEOL)

## LOWER DIVISION

## 102. General Geology (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent.
Broad based introductory study of geology. Broad based introductory study of geology. Structure, composition, distribution, and modification of earth materials and elementary geologic history of the Earth.
Not open for credit to students with credit in GEOL 103 or 107. Concurrent enrollment in GEOL 104 or 105 recommended. (Lecture, demonstration 3 hrs .) (GEOL 102+104, CAN GEOL 2)

## 104. Geology Laboratory (1)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent, and concurrent or prior enrollment in GEOL 102.
Laboratory study of earth materials.
(Laboratory 3 hrs.) Course fee may be required. (GEOL 104+102, CAN GEOL 2)

## 105. Geology Field Laboratory (1)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent, and concurrent or prior enrollment in GEOL 102.
Field trips to areas of geologic significance and field study of earth materials.
May be repeated to a maximum of 3 units with consent of instructor. (Field trips, 6 days per unit.) Course fee may be required for bus trips.

## 106. Earth Science for Teachers (4)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics, including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent.
Introduction to earth science including geology, oceanography, meteorology, solar system and astronomy. Scientific method addressed. Methods of teaching science to K-8 pupils.
Letter grade only (A-F). (Lecture, demonstration 3 hours., laboratory 3 hrs., field trips.)

## 160. Introduction to Oceanography (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent.
Origin and extent of oceans, nature of ocean floor, and cause and effect of currents, tides, and waves; and life in the ocean.
(Lecture, discussion 3 hrs.)
160L. Introduction to Oceanography Laboratory (1)
Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent; and previous credit or concurrent registration in GEOL 160.
Field and laboratory study of marine environment. Analysis of maps, plus shore and on-water trips for experience in use of oceanographic instruments. Analysis and interpretation of results. (Laboratory-field 3 hrs.) Course fee may be required.

## 190. Environmental Geology (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A. 1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent.
Interrelationships between humans and hazards: landslides, floods, erosion, subsidence, volcanism, earthquakes, and seismic sea waves. Origin of resources and impacts of resource development: water, soils, and energy. Waste and waste disposal. (Lecture 3 hrs.)

## 240. Historical Geology (4)

Prerequisites: GEOL 106 or both GEOL 102, 104.
History of earth and evolution of animals and plants.
(Lecture 3 hrs., laboratory 3 hrs., field trips.) (CAN GEOL 4)
250. Introduction to Field Petrology and Geological Field Techniques (3)
Prerequisites: GEOL 102 with 104 or 105 ; or GEOL 106; all with grades of "C" or better. Corequisite: GEOL 240.
Identification and description of igneous, sedimentary, and metamorphic rocks in the field. Development of fundamental geological field techniques: recording, collection, and interpretation of geological field data. Creation and interpretation of geological maps, writing technical reports, and construction of geological illustrations.
Letter grade only (A-F). (Lecture 1 hour, weekend field trips.)

## 273. Computer and Statistical Methods in Geology (4)

Prerequisites: GEOL 240, MATH 117 or 122. An elementary background in computers is recommended.
Introduction to statistical theory, computer programming, and the use of computer-based statistical and graphical packages as applied to problem-solving in the geological sciences.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trips.)

## 280. Water Resources and Society (3)

Prerequisites: GEOL 102, 104. A grade of "C" or better in MATH 117, or four years of high school mathematics.
Hydrologic, geologic, and other factors controlling groundwater and surface water occurrence, movement, quality, and contamination. Environmental effects of groundwater and surface water contamination.
(Lecture 3 hours; field trips)

## UPPER DIVISION

## 3001. Earth Systems and Global Change (3)

Prerequisites: Completion of the G.E. Foundation, upper division status, and CHEM 100 or CHEM 111A or GEOL 102 or GEOL 106 with a grade of "C" or better.
Interaction of Earth's systems (biosphere, lithosphere, hydrosphere, cryosphere, and atmosphere) and links between life, oceans, climate, and the solid earth. This approach is used to understand important issues confronting society regarding climatic and environmental change.
Letter grade only (A-F). (Lecture 3 hrs.)
303. Coastal Systems and Human Impacts (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing; BIOL 200; GEOL 102 or 160.
Natural processes impacting human activities in coastal zone and human influence on natural processes. Includes global warming, sea level rise, El Nino, port development, ocean outfalls and water quality, fisheries, and coastal erosion.
May not apply units towards elective requirements of Geology and Earth Science majors. Same course as BIOL 303. Letter grade only (A-F). (Lecture 3 hrs .)

## 322. Crystallography, Mineralogy and Optical Methods (5)

Prerequisites: GEOL 250; CHEM 101 or 111A.
Morphological and structural crystallography, crystal structure, chemistry, classification, origin, occurrence, and association of minerals reviewed. Analysis and identification of minerals by megascopic, qualitative, chemical, and instrumental means. Optical properties of minerals reviewed including nature of light. Petrographic microscope used.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs., field trip.)

## 339. Introduction to Geomorphology (3)

Prerequisites: GEOL 102 with 104 or 105; or GEOL 106; or GEOG 140.

Study of landforms and processes producing and modifying them. Emphasis on mechanics of geomorphic processes and relationships between properties of earth materials and forces applied to them by gravity, wind, ice, water, waves, and humans. Conceptual basis of geomorphology addressed.
Designed for Geology, Geography, Biology, Anthropology, and Civil Engineering majors. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips).

## 341. Paleontology and Biostratigraphy (4)

Prerequisites: GEOL 240 and BIOL 200.
Morphologic, systematic, and ecologic aspects of invertebrate fossils; methods and techniques in collection, preparation, illustration, and description of fossils; uses of fossils in stratigraphic work; principles of biostratigraphy.
(Lecture 3 hrs., laboratory 3 hrs., fieldtrips.) Course fee may be required.

## 364. Introduction to Geological Oceanography (2)

Prerequisites: GEOL 102 or 160; and CHEM 111A or MATH 122, or consent of instructor.
Topography and structure of ocean floor. Waves, currents, and tides as agents of sedimentation. Geological processes effect on the sea floor environment. Tectonic and sedimentary history of ocean basins and continental margins. Shipboard techniques in marine geology.
(Lecture 2 hrs.; sea trips.)

## 364L. Laboratory in Geological Oceanography (1)

Prerequisite or corequisite: GEOL 364.
Analytical and data collecting techniques in marine geology. Chart reading and navigation. Bottom and subbottom profiling. Sample collecting methods and their applicability. Laboratory analysis of bottom samples. Interpretation of data from geologically significant localities visited by research ship.
(Laboratory 3 hrs.; sea trips.)
370. Engineering Geology (2)

Prerequisites: MAE 172, CE 130.
Earth processes and materials which influence the design, construction and operation of engineering works, construction materials. Not open for credit to geology majors.
(Lecture 2 hrs., field trips.)

## *420. Geowriting (3)

Prerequisites: Upper division or graduate standing in the College of Natural Sciences and Mathematics; ENGL 100 or equivalent; fulfillment of the GWAR and a course in geology; consent of instructor.
Writing for scientific audience; writing scientific content at an advanced level emphasized. Journal article and abstracts reviewed. Includes handling descriptive scientific data, distinction between data and interpretation, logic and argument, clarity of style, and writing for specific audiences. Extensive writing. Enrollment limited.
Letter grade only (A-F). (Lecture 3 hrs.)

## 422. Advanced Mineralogy (4)

Prerequisites: GEOL 322; CHEM 111B.
Minerals and crystal structure studied emphasizing importance of non-silicate minerals to sedimentary petrology and economic geology. Includes physical and optical properties, flame and fusion techniques, and X-ray diffraction of native elements through organic compounds. Training in optical mineralogy. Lunar mineralogy. Gemology reviewed.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trip.)

## 424./524. Sedimentary Petrology (4)

Prerequisites: GEOL 322 and 443. (Undergraduates enroll in GEOL 424; graduates enroll in GEOL 524.)
Microscopic and macroscopic study of the origin and diagenesis of sedimentary rocks. Identification of grain types, textures, structures, and cements emphasizing provenance, paleotectonics, paleoenvironmental reconstructions, and post-depositional alteration.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)
428. Igneous and Metamorphic Petrology and Petrography (4)
Prerequisites: GEOL 322; CHEM 111A, B.
Magmatic and metamorphic rock bodies and systems characteristics, including mineralogical and chemical aspects. Fabrics' origin, evolution of igneous and metamorphic rocks, modeling of magma genesis. Microscopic, hand specimen and x-ray analysis of rocks, including fabric and mineral content.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., and field trips)
430./530. Seminar in Structural Geology and Tectonics (3)

Prerequisite: GEOL 433. (Undergraduates enroll in GEOL 430; graduates enroll in GEOL 530.)
Review of analysis, interpretation and origin of geologic structures, mechanics of rock deformation and of large scale crustal deformation.
(Lecture 2 hrs., laboratory 3 hrs.; field trips.)

## 431./531. Tectonic Geomorphology (4)

Prerequisite: GEOL 433. (Undergraduates enroll in GEOL 431; graduate students enroll in GEOL 531.)
Observation and analysis of Earth surface processes, and development of landforms and landscape. Interaction between surficial processes and tectonic, biologic, hydrologic, climatic, and atmospheric processes. Tectonic generated landforms, earthquake hazards evaluated, and geomorphic assessment. Assessing problems including landforms and environmental hazards.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trips).
433. Structural Geology (5)

Prerequisites: GEOL 250, 322; PHYS 151.
Theories/principles of structural geology, orogenesis, and tectonics. Planar/linear structures in naturally deformed rocks. Description, classification, interpretation, and kinematic and dynamic analysis of faults/folds. Field measurement, analysis and mapping of structures. Deformation, strength, fracture, and rheological properties of rocks.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs., field trips.)
443. Stratigraphy/Sedimentology (5)

Prerequisites: GEOL 240, 322.
Introduction to sedimentology and stratigraphy, flow mechanics and sedimentary structures, laboratory and field methods for the description and classification of sedimentary rocks, depositional systems, sequence stratigraphy, subsurface stratigraphic methods, sedimentation and tectonics, and preparation of sedimentologic field reports.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs., field trips.)

## 450. Summer Field Geology (4)

Prerequisites: GEOL 428, 433, and 443.
Four weeks of geological field mapping at a selected area. Preparation of geological reports of the field problems.
(Lecture as needed, daily field work.) Course fee may be required.

## 452. Advanced Topics in Marine Geology (3)

Prerequisites: GEOL 364, 364L. Corequisite or prerequisite: GEOL 460.

Field collection of data and samples, analysis of laboratory data and report completion. Topics in marine geology: structure and composition of oceanic lithosphere, continental margin structure and evolution, seismic stratigraphy, paleoceanography, critical events in world ocean history, and advanced geophysical techniques.
Letter grade only (A-F). (Lecture 1 hr., laboratory 3 hrs., 5 days of sea trips.)
*460. Introduction to Geophysics (3)
Prerequisites: PHYS 151, 152; MATH 123; and GEOL 273.
Introduction to geophysics; principles and processes; methods of investigation.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips.)
*461. Introduction to Geochemistry (3)
Prerequisites: CHEM 111A,B and MATH 123.
Abundance and migration of elements in the earth; chemical processes in evolution of earth and its crust including geochemistry of organic compounds.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)
*462. Physics and Chemistry of the Earth's Interior (3)
Prerequisites: GEOL 240, 428; PHYS 152.
Structure and composition of the Earth's interior. Origin and evolution of the Earth. Review of geophysical data, petrologic analyses, and other types of evidence for Earth structure and compositional models.
Letter grade only (A-F). (Lecture 3 hrs.)

## 465./565. Physical and Chemical Oceanography (3)

Prerequisites: CHEM 111B; PHYS 100B, and upper division standing in the College of Natural Sciences and Mathematics or Engineering. (Undergraduates enroll in GEOL 465; graduates enroll in GEOL 565.)
Physics and chemistry of the oceans, carbon cycle; minor and trace elements in sea water, nutrients, water masses and currents; physical concepts and interpretative theories related to ocean circulation.
(Lecture 3 hrs.)
*466. Oceanography Laboratory and Ocean Studies (1)
Prerequisite: Concurrent or prior enrollment in GEOL 465.
Analysis and interpretation of oceanographic data, acquisition of data at sea on field trip, and post-cruise analysis and presentation of results.
Not open for credit to students with credit in GEOL 462. (Laboratory 3 hrs., sea trips.)

## *471. Petroleum Geology and Well Log Analysis (4)

Prerequisites: GEOL 240, 443.
Geological application in exploration and production of petroleum, including uses of surface and subsurface techniques. Basic well logging techniques employed, including data collection, reduction, interpretation, and integration among various logging methods as well as with surface geology and geophysical data.
(Lecture 2 hrs., laboratory 6 hrs., field trips.)

## 477./577. Hydrogeology (3)

Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; graduates enroll in GEOL 577.)
Hydrologic, geologic, and other factors controlling groundwater flow, occurrence, development, chemistry, and contamination. Elementary groundwater flow theory. Well hydraulics.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 486./586. Engineering Geophysics (3)

Prerequisite: GEOL 460 (may be taken concurrently). (Undergraduates enroll in GEOL 486; graduates enroll in GEOL 586.)

Applying geophysical techniques to geology and hydrogeology problems. Geophysical techniques, and identification and utilization of specialized techniques. Case histories in site evaluations, subsiding areas, basement topography mapping, seawater problems, water table mapping, groundwater contamination, and subsurface cavities detection.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.)

## *489. Current Topics in Geological Sciences (3)

Prerequisite: Consent of instructor.
Topics of current interest in the geological sciences selected for intensive development. Topics selected from such areas as (a) Volcanology, (b) Urban geology.
May be repeated to a maximum of 6 units. Field trips may be required. (Lecture 2 hrs ., laboratory 3 hrs .)
*490. Current Topics in Geological Sciences (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in the geological sciences selected for intensive development. Topic(s) selected from such area(s) as (K) Economic Mineral Deposits.
May be repeated to a maximum of 6 units. Field trips may be required.

## 496. Investigations in Geology and Other Earth Sciences (1-4)

Prerequisites: Senior standing in geology, earth science or related fields, completion of an upper division course in geology or earth science in the area of the topics chosen and approval of the topic chosen by the Geological Sciences faculty.
Supervised research in geology or the other earth sciences. Field trips may be required.

## GRADUATE LEVEL

## 500. Introductory Graduate Seminar (1)

Prerequisite: Graduate standing.
Introduction to graduate policies and faculty research in Geological Sciences. Abstracts on faculty presentation required of all students.
Course cannot be counted for program requirements for the M.S degree in Geology. Credit/No Credit grading only. May be repeated to a maximum of 3 units. (Seminar 1 hr .)

## 524./424. Sedimentary Petrology (4)

Prerequisites: GEOL 322 and 443. (Undergraduates enroll in GEOL 424; graduates enroll in GEOL 524.)
Microscopic and macroscopic study of the origin and diagenesis of sedimentary rocks. Identification of grain types, textures, structures, and cements emphasizing provenance, paleotectonics, paleoenvironmental reconstructions, and post-depositional alteration.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

## 530./430. Seminar in Structural Geology and Tectonics

 (3)Prerequisite: GEOL 433. (Undergraduates enroll in GEOL 430; graduates enroll in GEOL 530.)
Review of analysis, interpretation and origin of geologic structures, mechanics of rock deformation and of large scale crustal deformation.
(Lecture 2 hrs., laboratory 3 hrs.; field trips.)

## 531./431. Tectonic Geomorphology (4)

Prerequisite: GEOL 433. (Undergraduates enroll in GEOL 431; graduate students enroll in GEOL 531.)
Observation and analysis of Earth surface processes, and development of landforms and landscape. Interaction between surficial processes and tectonic, biologic, hydrologic, climatic, and atmospheric processes. Tectonic generated landforms, earthquake hazards evaluated, and geomorphic assessment. Assessing problems including landforms and environmental hazards.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trips)

## 537. California Geology (3)

Prerequisites: GEOL 433, 450.
Examination of recent theories concerning evolution of California's geological provinces; geological, geochemical, and geophysical evidence for these theories
Letter grade only (A-F). (Lecture 3 hrs., field trips.)
554. Environmental Geochemistry (3)

Prerequisites: Graduate standing in geology, a course in instrumental analytical methods, and consent of instructor.
Geochemical cycles. Human interference with cycles. Trace elements, health and agriculture. Clay mineral reactions. Groundwater chemistry. Reading and discussion of research articles; projects in environmental geochemistry.
Letter grade only (A-F). (Lecture 3 hrs., field trips.)
556. Organic Geochemistry (3)

Prerequisites: CHEM 111B; GEOL 240.
Exchange of organic matter among sediments, hydrosphere, and biosphere. Diagenesis and catagenesis and their effects on different types of organic matter. Origin of coal and crude oil. Thermal maturity of sedimentary rocks.
Letter grade only (A-F). (Lecture 3 hrs.)
565./465. Physical and Chemical Oceanography (3)

Prerequisites: CHEM 111B; PHYS 152 or 100B, and upper division standing in the College of Natural Sciences and Mathematics or Engineering. (Undergraduates enroll in GEOL 465; graduates enroll in GEOL 565.)
Physics and chemistry of the oceans, carbon cycle; minor and trace elements in sea water, nutrients, water masses and currents; physical concepts and interpretative theories related to ocean circulation.
(Lecture 3 hrs .)

## 570. Special Topics in Geology (1-3)

Prerequisite: Consent of instructor.
Investigation of selected topics in geology.
May be repeated to a maximum of 6 units toward any single degree with different topics. Seminars with laboratories as appropriate. Letter grade only (A-F).

## 575. Advanced Topics in Sedimentology (1-4)

Prerequisites: Consent of instructor.
Investigation of topics in sedimentology such as depositional facies analysis, basin evolution, coastal processes, fluvial processes, advanced stratigraphic analysis, and tectonics and sedimentation. Content varies form year to year.
May be repeated to a maximum of 4 units toward any single degree with different topics. Seminars with labs and/or field work as appropriate. Letter grade only (A-F).

## 576. Practicum in Geohydrology (3)

Prerequisite: Consent of the instructor; the student should have a fundamental understanding of aquifer mechanics, organic chemistry, stratigraphy, and geohydrology.
Solution of actual problems in areas of water supply and resource contamination. Combination of field techniques, problem approaches, and quantitative analysis used to solve comprehensive problems in a fixed period of time to simulate industry conditions.
Letter grade only (A-F). (Seminar and field trips, 3 hrs .)

## 577./477. Hydrogeology (3)

Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; graduates enroll in GEOL 577.)
Hydrologic, geologic, and other factors controlling groundwater flow, occurrence, development, chemistry, and contamination. Elementary groundwater flow theory. Well hydraulics.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 578. Groundwater Hydraulics (3)

Prerequisites: GEOL 477/577; MATH 364A.
Advanced treatment of groundwater flow through granular porous and fractured media; analytical solutions to groundwater flow problems; hydraulics of wells and aquifer parameter estimation. Letter grade only (A-F). (Lecture 3 hrs .)

## 585. Advanced Gravity and Magnetics (3)

Prerequisites: MATH 224; PHYS 152; GEOL 460.
Advanced topics in the gravity and magnetic methods of geophysical prospecting.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips.)

## 586./486. Engineering Geophysics (3)

Prerequisite/Corequisite: GEOL 460. (Undergraduates enroll in GEOL 486; graduates enroll in GEOL 586.)
Applying geophysical techniques to geology and hydrogeology problems. Geophysical techniques, and identification and utilization of specialized techniques. Case histories in site evaluations, subsiding areas, basement topography mapping, seawater problems, water table mapping, groundwater contamination, and subsurface cavities detection.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.)

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor.
Research on a specific subject in geology. Topic for study to be approved and directed by a faculty member in geological sciences.
Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisite: Advanced to candidacy for M.S. in Geology, consent of Graduate Committee and graduate advisor.
Either laboratory or field investigations, or both, for a total of six semester units to culminate in an approved thesis.
Letter grade only (A-F).

## Department Chair

Jutta Birmele
Program Director
Jutta Birmele
RGRLL Language Coordinator
Markus Muller
Single Subject Coordinator for L.O.T.E.
Jean-Jacques Jura
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McIntosh Humanities Building (MHB), Room 820
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Faculty
Professor
Jutta Birmele
Associate Professor
Jeffrey High
Administrative Support Coordinator
Cindy McCarty

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

The German program develops the student's language skills, and knowledge of current affairs in German-speaking countries, as well as cultural literacy, which are indispensable for foreign study and employment, business, government service, and careers in teaching, among others. In cooperation with the College of Engineering, the German Program promotes a double major of German and Engineering. In addition, the Program offers a BA in German Studies with a concentration/certificate in the Administration of Travel and Tourism. German Studies maintains exchange programs with the University of Bielefeld, Essen, and Oldenburg as well as Freibury (Switzerland) and Salzburg (Austria). German students are also eligible to participate in the German-American Business Student Workshop with the Polytechic University Hamburg, Germany.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in German (code RGR_BA02) (120 units)

The German Studies Program promotes competency in the use of language and understanding of contemporary society in German-speaking countries. It is designed to meet the needs of students seeking a liberal-arts education with an emphasis on German language and culture; those intending to teach at the elementary, secondary, or the college level; and of those planning to use German in professional careers or in pursuit of graduate studies. Efforts are made to accommodate the special needs of students who simultaneously pursue a major in Business, Engineering or a certificate in Travel and Tourism.

## Requirements

Lower Division: One year of intermediate German or equivalent. Students who have completed sufficient highschool German may take upper-division courses as soon as lower-division requirements have been met. Native speakers of German may not enroll for credit in 101A/B or 201A/B.

Upper Division: A minimum of 30 units of upper-division courses in German, which must include GERM 301, 302, 415 and 416.

Recommendations: Courses should be selected in consultation with the major advisor. The department strongly recommends studies or an internship in a German-speaking country and will assist in such plans.

## Single Subject Teaching Credential, German (code 153)

Completion of the German major (plus 6 additional units) meets the subject matter competence requirement for the Single Subject Preliminary Credential in German (code 153). Prospective students should consult the undergraduate German Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective teachers of German are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/singlesubject) for a description of the professional preparation requirements, courses, and application procedures.

The German Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

The same as for the B.A. plus GERM 303 and 410:

## Minor in German (code RGR_UM03)

A minimum of 20 upper division units, which must include: GERM 301, 302, 415, and 416.

The Minor in German is available to any non-German major.

## GRADUATE PROGRAMS

## Master of Arts in German (code RGR_MA02)

The Master of Arts in German prepares students for academic and other professional careers. The Program is committed to support each graduate student in his or her career goals and works together with other programs and departments on campus to help formulate a meaningful and marketable study plan for each student. Many of our graduates go into teaching at the secondary and postsecondary level and are successful in competing for fully supported Ph.D. programs throughout the U.S. We encourage students to study in German-speaking universities and assist with overseas study plans.

## Prerequisites

1. A bachelor of arts degree in German or:
2. A bachelor's degree with a minimum of 24 units of upper-division courses in German. These courses must be comparable to those required of a major in German at the University. Deficiencies will be determined by the department.

## Advancement to Candidacy

Advancement to Candidacy should take place upon completion of at least six units, preferably no more than nine units applicable to the program, with at least a 3.0 GPA.

The candidate may file for advancement to candidacy only after she/he has filed a transcript of credits or a change-of-objective form, completed the prerequisites, and fulfillment of the Graduation Writing Assessment Requirement (GWAR).

The student graduate program must be approved by the graduate advisor, departmental committee, and the College of Liberal Arts Associate Dean of Graduate Studies. For graduate students interested in multimedia teaching technology, the program provides special projects and practical opportunities.

Teaching Assistantships are available.

## Requirements

1. Completion of a minimum of 30 units of approved upper-division and graduate courses with 24 units in German;
2. A minimum of 18 units in the 500 and 600 series in German which must include GERM 510.
3. A reading knowledge of French, Italian, Latin, Russian, or Spanish. Another language may be substituted only under special circumstance;
4. A comprehensive examination or, with permission of a Graduate Advisor, a thesis.

## German Courses (GERM)

## LOWER DIVISION

## 101A. Fundamentals of German (4)

Prerequisite or corequisite: Any Foundation course.
For those who are just beginning the study of German.
(lecture 4 hrs.)

## 101B. Fundamentals of German (4)

Prerequisite or corequisite: Any Foundation course.
Continuation of GERM 101A. (lecture 4 hrs .)

## 201A. Intermediate German (4)

Prerequisite: GERM 101B and completion of the 13 -unit Foundation requirement (or entering competency equivalent to GERM 101B and completion or concurrent enrollment in at least one Foundation course.
German grammar review with further development of reading, writing, and conversational skills.
(Lecture 4 hrs.)

## 201B. Intermediate German (4)

Prerequisite: GERM 201A and completion of the 13-unit Foundation requirement (or entering competency equivalent to GERM 201A and completion or concurrent enrollment in at least one Foundation course.
German grammar review with further development of reading, writing, and conversational skills.
(Lecture 4 hrs.)

## 204. German for Reading Knowledge (3)

Prerequisites: GERM 101A,B or equivalent or consent of instructor.
Concentrates on essentials for translation and is designed chiefly for students in any field who are preparing for reading exams in German.

## UPPER DIVISION

## 301. Fiction and Fact: Short Texts (3)

Prerequisite: GERM 201B or equivalent. Intensive practice and the consolidation of the basic language skills: reading comprehension, composition, and conversation.
Emphasis on reading, comprehension, vocabulary building, and idiomatic usage.

## 302. Language of the German Media (3)

Prerequisite: GERM 201B or equivalent.
Intensive practice and the consolidation of basic skills: reading, comprehension, composition, and conversation. Emphasis on composition, oral reports, and discussion.

## 303. German Phonetics (3)

Prerequisite: Upper-division standing in German or consent of instructor.
General concepts of linguistic science. Linguistics applied to the study and teaching of the German language. Articulatory phonetics as a means to form native German pronunciation habits with emphasis upon the difficulties encountered by speakers of American English.

## 305. Speak Along, Sprechen Sie Mit

Prerequisite: Upper-division standing in German.
Intensive practice of spoken German with stress on vocabulary building, pronunciation, intonation, and oral comprehension.
Credit/No Credit grading only. May be repeated to a maximum of 6 units.

## 306. Translating German to English (3)

Prerequisite: Upper-division standing in German or consent of instructor.

The preparation of translations from German texts of wide-ranging subject matter.

## 309. Business German (3)

Prerequisites: GERM 101A,B or equivalent or consent of instructor.
Advanced language course to acquaint students with terminology of German business. Conversational and written approaches to business correspondence, forms of business and corporate organizations, transportation, banking, management, protection, marketing.
Not open for credit to students with credit in GERM 307 or 308.
3801. Contemporary Germany, Society, and Culture (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Germany today presents a unique case study for difficulties and complexity of a unification process. Aspects of historical and cultural legacy and the social and political reality are approached through factual texts and fiction. Taught in English.

## 398. Topics in German (3)

Prerequisite: Upper-division standing in German or consent of instructor.
Exploration of topics in language, culture, and literature. Specific topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.
410. History and Stories: German Civilization (3)

Prerequisite: Upper-division standing in German.
Historical development of important German institutions, customs and thought.

## 415. Under the Italian Spell: Survey of German Literature and Culture I (3)

Prerequisite: Upper-division standing in German.
German literature from the Middle Ages to the time of Goethe as related to the other arts, to philosophy, and to the social and political institutions of the time.

## 416. Toward Europe: Survey of German Literature and Culture II (3)

Prerequisite: Upper-division standing in German.
German literature from Romanticism to the present as related to the other arts, to philosophy, and to the social and political institutions of the time.
430./530. Rhyme Scene Investigation: German Poetry (3)

Prerequisite: Upper-division standing in German.
German poetry from the Baroque to the present.
440. German Novella in Context (3)

Prerequisite: Upper-division standing in German.
The German Novella as a separate literary genre, represented by Goethe, Tieck, Kleist, Keller, Meyer, Storm, Spielhagen, Hesse, Kafka, Thomas Mann, and others.
450./550. Reason, Revolution, Reaction (3)

Prerequisite: Upper-division standing in German.
Literary trends of the 18th century, with emphasis on Lessing, Wieland, Klopstock, Herder, Goethe and Schiller and the authors from "Sturm und Drang" to Romanticism.
Letter grade only (A-F).

## 458. Road to Modernity (3)

Prerequisite: Upper-division standing in German.
Representative literary works of the "Biedermeier," "Junges
Deutschland" and "Poetischer Realismus" against the back-ground of the historical, philosophical, and cultural movements of the times.
Letter grade only (A-F).
460./560. Two Perspectives: 1945 to 1990 (3)

Prerequisite: Upper-division standing in German. S
Significant contemporary German writers of prose, drama, and poetry.
Letter grade only (A-F).
480. Between Berlin and Hollywood: German Cinema (3)

Acquaint students with the art of the medium, particularly as it is realized through the work of the artist most responsible for its success or failure, in this case the director.
Letter grade only (A-F). Same course as FEA 457.

## 494. Internship in German (1-3)

Prerequisites: Consent of instructor and department chair.
Field work in German, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in German.
*498. Topics in German (3)
Prerequisite: Senior standing in German or consent of instructor.
Exploration of topics in language, culture, and literature. Specific topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.
499. Directed Studies (1-6)

Prerequisite: Consent of instructor.
Independent study undertaken under the supervision of a faculty member.

## GRADUATE LEVEL

510. The Faces of United Germany: Past, Present, and Future (3)
Prerequisite: Admission to the Graduate
Program in German or consent of Graduate Advisor in the German Studies. The course locates the present concentration of international research in the discipline and requires individual research, presentation of findings, and a substantive paper. Letter grade only (A-F).
511. Selected Topics in German Culture and Civilization (3)

Prerequisite: B.A. in German or equivalent.
Intensive studies in special topics of the artistic, intellectual, social, religious, economic, and political development of the Germanspeaking countries, as announced in the Schedule of Classes.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).
530./430. Rhyme Scene Investigation: German Poetry (3) Prerequisite: Graduate standing in German.
German poetry from the Baroque to the present.
Letter grade only (A-F).
540. German Novella (3)

Prerequisite: Graduate standing in German.
The German Novella as a separate literary genre, represented by Goethe, Tieck, Kleist, Keller, Meyer, Storm, Spielhagen, Hesse, Kafka, Thomas Mann, and others.
Letter grade only (A-F).

## 550./450. Reason, Revolution and Romantic Thought (3)

Prerequisite: Upper division standing in German.
Literary trends of the 18th century, with emphasis on Lessing,
Wieland, Klopstock, Herder, Goethe and Schiller and authors from "Sturm und Drang" to Romanticism.
Letter grade only (A-F).

## 558. Road to Modernity (3)

Prerequisite: Upper-division standing in German.
Representative literary works of the "Biedermeier," "Junges Deutschland" and "Poetischer Realismus" against the back-ground of the historical, philosophical, and cultural movements of the times.
Letter grade only (A-F).
560./460. Two Perspectives: 1945 to 1990 (3)

Prerequisite: Graduate standing in German.
Significant contemporary German writers of prose, drama, and poetry.
Letter grade only (A-F).

## 590. Theoretical Approaches (3)

Prerequisite: B.A. in German or equivalent.
Evaluation of various methods in interpreting a literary work of art; different levels of interpretation; concepts of literary movements; complexity of structure related to content; literary appreciation; introduction to bibliographical aids.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 599. Directed Studies (1-3)

Prerequisites: Graduate standing.
Consent of instructor and chairperson or graduate advisor.
Selected topics in German to be pursued in depth.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of graduate advisor.
Required of all candidates for the master of arts in German who do not choose to write a thesis.
Letter grade only (A-F).

## 698. Thesis (1-4)

Prerequisite: Consent of graduate advisor.
Planning, preparation, and completion of a thesis. Does not count toward 30 units required for the M.A. degree.

College of Health and Human Services

## Director

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Email
bwhite@csulb.edu
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Faculty Interest Group

Jeanne Bader, Daniel Barber, Michael Blazey, Lee Blecher, Kay Cerny, Eileen Croke, Tom Crowe, Shelley Ericksen, Connie Evashwick, Janet Fisher, Mohammed Forouzesh, Gail Frank, Robert Friis, Carmen Galang, Agathi Glezakos, Catherine Goodman, Kenneth Gregory, Sarath Gunatilake, Sharon Guthrie, Judy Hails, Robert Harman, Joellen Hartley, Alan Henderson, Melanie Horn-Mallers, Harold Hunter, Carol Itatani, Hazel Jackson, Mary Jacob, K. J. James, Maridith Janssen, Barry Lavay, Marge Lichty, Tracey Mayfield, Valerie McKay, Olfat Mohamed, Walter Moore, Clyde Pentz, Marilyn Potts, Bonnie Rader, Molly Ranney, Wendy Reiboldt, Susan Rice, Pamela Roberts, Jan Schroeder, David Schult,Donna Schwab, Lydia Sondhi, Ronald Vogel, Barbara White, Mary Wolfinbarger

Gerontology is the scientific study of the processes and phenomena of aging, including biological, psychological and sociological dimensions. Mission: The California State University, Long Beach, Gerontology Program is dedicated to 1 ) improving the lives of middle age and older individuals in California and around the world by preparing students to work with diverse older adults, families, service providers, businesses, educators, and legislators; 2) providing timely, high quality training, consultation and other services; and 3) conducting research designed to inform planning and implementation of activities that promote optimal well-being of older adults and their families.
The Gerontology Program's objectives are:

- To provide a flexible interdisciplinary curriculum that provides new and seasoned professionals with the competencies necessary for success in the field of aging.
- To provide experiential as well as didactic graduate education and professional training in gerontology for individuals planning to become professionals in public and private agencies.
- To provide professional field experiences in gerontology in order to enhance understanding of concepts, themes, and skills related to aging at various life stages, within different gender and racial/ethnic groups and among people with various abilities.
- To provide knowledge and skills necessary to plan develop and implement innovative programs to meet the needs of the State's vast and growing aging population.
- To explore aging-related professional values and ethics.

The Gerontology Program is enhanced by the Gerontology Faculty Interest Group, the Center for Successful Aging and a chapter of Sigma Phi Omega, the National Honor Society in Gerontology.

The Gerontology Faculty Interest Group is comprised of about 50 CSULB faculty members representing more than 20 disciplines. Members teach courses essential to the Gerontology Program, conduct gerontological research, and provide training and service. Lecturers and emeritus faculty members also are active in the Gerontology Program.

The Center for Successful Aging is part of a complex of Centers and organizations on the campus of California State University, Long Beach that are involved with aging-related issues. The Center for Successful Aging is a transdisciplinary academic/community partnership to promote collaborative innovations in education, practice, policy development and research related to aging, in a culturally diverse society.

Students in the gerontology program are eligible for membership in Sigma Phi Omega, the national academic honor and professional society in gerontology that recognizes the excellence of those who study gerontology/aging and the outstanding service of professionals who work with or on behalf of older persons.

CSULB is one of only a few California campuses to offer graduate programs to meet the State's need for educated, experienced and diverse professional gerontologists. To accomplish this goal, two programs of study are offered: A Master of Science in Gerontology and a Gerontology Certificate.

## Master of Science in Gerontology (code FCS_MS02)

Interested students should contact Dr. Barbara White at 562-985-1582 or bwhite@csulb.edu

The Master of Science Degree in Gerontology is designed to prepare students with a thorough background in existing theory and research in gerontology, advanced principles of program management, and an enhancement to their baccalaureate preparation for their professional discipline. Students who complete the M.S. in Gerontology will accomplish the following objectives:

1. Acquire advanced education and professional training in gerontology in order to become administrators of state and federal programs, services such as senior centers and retirement homes, businesses, and intergenerational programs.
2. Enhance cultural competence regarding age, cohort, gender, race and ethnicity, and/or diverse abilities.
3. Acquire expertise in planning, developing, implementing, and evaluating innovative programs to meet the needs of older persons.
4. Demonstrate the ability to conduct appropriate research.
5. Exercise sound professional judgment based on high ethical standards and expectations.

## Admission Requirements

1. Complete the application form to be admitted to the university with graduate standing;
2. Send the following materials to the Gerontology Program, in addition to those sent to the Office of Enrollment Services:
a. Transcripts of all undergraduate and graduate work,
b. Three letters of recommendation reflecting academic potential, personal qualifications, sensitivity, motivation, and evidence of ability and motivation to work with older adults and professionals in the field of aging, and
c. A current resume,
d. A personal statement of interest in aging and career goals in the field.
Admission to the program is contingent on approval by the Gerontology Program Director.

## Prerequisites

1. A bachelor's degree from an accredited institution.
2. Evidence of a 3.0 or better grade point average in all undergraduate work. Students with less than a 3.0 grade point average in the last 60 undergraduate semester or 90 quarter units attempted but with evidence of professional promise and experiential background may be admitted conditionally by action of the Program Director.
3. Successful completion of the following courses or their approved substitutes: a. GERN 400I; b. BIOL 301; c. PSY 365 or HDEV 3571; d. ANTH 454; e. An approved upper division statistics course.

## Retention

1. Maintain a 3.0 or better grade point average in all graduate work completed at CSULB and all graduate work transferred to meet graduate requirements.
2. Continued satisfactory progress toward the degree objective.

## Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy.
2. Fulfill the Graduation Writing Assessment Requirement (GWAR) (to be taken during the first term).
3. Complete a minimum of six units of graduate coursework.
4. Enroll during the semester or summer session in which advancement to candidacy takes place.
5. Obtain approval for ones individual program plan from the Gerontology Program Director and then from the Associate Dean of the College of Health and Human Services.

## Requirements

Thesis Option: Completion of a minimum of 37 units, with at least 28 units of 500 and/or 600 series courses in Gerontology, including GERN 563, 592, 600, 610, 696, 697, and 698. A maximum of six units may be taken outside of the major.
Directed Project Option: Completion of a minimum of 37 units with at least 28 units of 500 and/or 600 series courses in Gerontology, including GERN 563, 592, 600, 610, 697, and 692. A maximum of six units may be taken outside the major.

## Certificate in Gerontology (code FCS_CT03)

Interested students should contact Dr. Barbara White at 562-985-1582 or bwhite@csulb.edu

The Certificate program is designed to train individuals as gerontology specialists within a major area of study. Alumni work in community programs, health services organizations, government agencies, and the private sector.

The Certificate in Gerontology may be earned in conjunction with a baccalaureate degree or awarded subsequent to earning a bachelor's degree. Up to six units of courses taken in the student's major department may be approved to satisfy certificate requirements as may general education and elective courses also used to complete the bachelor's degree.

## Requirements

1. A bachelor's degree (may be taken concurrently).
2. 24 units distributed as follows: GERN 400I, ANTH 454, BIOL 301, PSY 365 or HDEV 3571.
3. A minimum of six units chosen in consultation with the Gerontology Program Director from a list of supporting courses.
4. Three units of independent study (GERN 497) on a topic related to gerontology.
5. Three units of approved field experience (GERN 492) in a gerontology setting.
6. Early consultation with, and approval by the Gerontology Director for, the individual program of study.
7. Apply for issuance of the earned Certificate at Enrollment Services the term before completion of the baccalaureate and/or Certificate.
Successful completion of the program will result in the Program Director's recommendation for issuance of the Certificate in Gerontology.

## Courses (GERN)

## UPPER DIVISION

## 4001. Perspectives on Gerontology (3)

Prerequisites: Completion of the General Education Foundation, one or more Explorations courses, and upper-division standing.
Multidisciplinary study of middle age and aging. Includes physiological, psychological, political, economic and sociological aspects. Effects of culture and environment on aging; history and demographics; health issues.
(Lecturer-discussion, 3 hours.)

## 420./520. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as CAFF 420. (Lecture-discussion 3 hrs)
*424. Independent Living for Disabled and Elderly Persons (3)
Prerequisite: CAFF 321 or 322 or GERN 400 I or consent of instructor. Independent living concepts related to physically and/or functionally disabled adults. Personal, environmental and programmatic responses to disability and aging.
Same course as CAFF *424. Letter grade only (A-F). (Lecture/ Activity, 3 hours.)

## 430./530. Aging and Dementia (3)

Prerequisites: GERN 400I, HDEV 357 I or PSY 365, or graduate standing, or consent of instructor.
An examination of physiological, psychological, social and economic aspects of dementia and its impact on the individual, the family and society. Community resources, current research and policy issues are included, with a particular emphasis on Alzheimer's disease.

## *439. Nutrition and Aging (3)

Prerequisites: NUTR 132 or BIOL 207 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older people.
Same course as NUTR *439. (Lecture-discussion, 3 hours.)
469./569. Disability, Culture and Society: Issues and Intervention (3)
Prerequisites: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as REC 469/569 and SW 469/569. Letter grade only (A-F).

## *474. Aging and Diversity in California (3)

Prerequisites: GERN 400I, or consent of instructor.
Projects meaningful to California elders and that build skills. Professionals discuss career paths, local aging networks, and how the diverse climates of the State and region shape aging-related events, trends issues, and programs. Fieldtrips may be required. (Lecture-activity 3 units.)

## *482. Health Assessment of the Aging Client (3)

Prerequisites: GERN 4001 or equivalent and upper division standing or consent of instructor.
Assessment of the physical, psychological and social status of the aging client as they affect health and well-being. Focuses on working with aging clients in a variety of settings to identify actual or potential health-related problems using various techniques.
Same course as NRSG*482. (Lecture-discussion, 3 hours.)

## *485. Mental Health and Aging (3)

Prerequisites: GERN 400I, HDEV 357I or PSY 365, ANTH 454, and BIOL 401, or consent of instructor.
Mental health status of older adults over time and within subgroups. Societal responses affecting diagnoses and assessments of competence. Common mental health issues of older adults. Comparison of medical and non-medical therapeutics. Fieldtrips may be required. (Seminar 3 hours.)
492G. Internship in Gerontology (3)
Prerequisites: Student must be a Gerontology Certificate candidate; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of the Gerontology program director; and GERN 400I, ANTH 454, PSY 365 or HDEV 357I. Each prerequisite course must be completed with a grade of " $C$ " or better. A course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grader lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. Same as FCS 492G. (Seminar 3 hours.)

## 497. Directed Studies (1-3)

Prerequisites: GERN 400I, ANTH 454, PSY 365, or HDEV 357I, upper-division standing and consent of program director.
Independent study under the supervision of a faculty member. Exploration and experience supplementing and/or complementing regular courses.
May be repeated to a maximum of 6 units.
*499. Special Studies (1-3)
Group investigation of topics of current interest in gerontology. Topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.

## GRADUATE LEVEL

## 520./420. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as FCS 520. Letter grade only (A-F). (Lecturediscussion 3 hours.)

## 530./430. Aging and Dementia (3)

Prerequisites: GERN 400I, HDEV 357 I or PSY 365, or graduate standing, or consent of instructor.
An examination of physiological, psychological, social and economic aspects of dementia and its impact on the individual, the family and society. Community resources, current research and policy issues are included, with a particular emphasis on Alzheimer's disease.

## 550. Social Policy and Aging (3)

Prerequisite: GERN 400I, HDEV 357I or PSY 365, and ANTH 454 or consent of instructor.
Major legislation and policies affecting older Americans. Analyses of policy information and change, kinds of data, and social forces that affect development and implementation of aging-related policies and legislation.

## 563. Evaluation in Family and Consumer Sciences and Gerontology (3)

Prerequisites: Upper division or graduate course in statistics; GERN 696 (may be taken concurrently) or equivalent.
Principles, design, and methods of program evaluation for use by Family \& Consumer Sciences and Gerontology professionals. Selection and development of instrumentation for data collection and interpretation and methods of reporting.
Letter grade only (A-F). (Seminar 3 hours.) Same course as FCS 563.

## 569./469. Disability, Culture and Society: Issues and

 Social Intervention (3)Prerequisites: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as REC 569/469 and SW 569/469. Letter grade only (A-F).

## 592. Internship in Family and Consumer Sciences/ Gerontology (3)

Prerequisite: Graduate standing and consent of instructor.
Field experience in which student assumes a self directed responsible role in an agency, business or other community setting.
May be repeated to a maximum of 6 units. Same course as FCS 592. (Seminar 3 hours) Letter grade only (A-F).

## 597. Independent Study (1-3)

Prerequisites: Graduate standing and consent of instructor.
Independent study under the supervision of a faculty member. Exploration or experience supplementing and/or complementing regular courses to meet student learning goals.
Letter grade only (A-F).
600. Seminar in Administration of Family and Consumer Sciences/Gerontology Programs (3)
Prerequisite: FCS 696 or GERN 696 or consent of instructor.
Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Decisionmaking, organizational structures and evaluation concepts included.
Same course as FCS 605. (Seminar 3 hours.) Letter grade only (A-F).
610. Seminar in Current Issues, Trends and Research in Gerontology (3)
Prerequisite: Completion of all core courses except GERN 696, 697 or 698 any of which may be taken concurrently.
Students will undertake literature reviews and/or research to explore emerging issues, trends and research in the field of aging studies and/or update their information on the most current gerontological topics.
(Seminar 3 hours.)
692. Gerontology Directed Project (1-4)

Prerequisite: GERN 697.
Students will acquire experiential skills under the guidance of a faculty advisor and supervisor/preceptor at an approved project site. Student will identify problems, design and assess a project or conduct research. Results will be presented in a thesis-style report. Letter grade only (A-F).

## 696. Research Methods (3)

Prerequisite: Upper-division course in statistics.
Methodological approaches to contemporary research issues in Family and Consumer Sciences. Course focuses on the design, development, and implementation of a formal research-designed project.
Letter grade only (A-F). (Seminar 3 hours). Same course as FCS 696.

## 697. Directed Research (1-3)

Prerequisite: Advancement to candidacy, GERN 500-level courses in area of study, and GERN 696.
Independent investigation of research problems under the direction of a faculty member.
Letter grade only (A-F).

## 698. Thesis (1-4)

Prerequisite: GERN 697, advancement to candidacy.
Planning, preparation and completion of a thesis under supervision of a faculty member. Approval of thesis committee.
Letter grade only (A-F).

# GLOBAL LOGISTICS College of Liberal Arts <br> Department of Economics 

Director<br>Joseph P. Magaddino<br>Department Office<br>Social Science/Public Affairs (SS/PA), Room 361A<br>Telephone<br>(562) 985-5061<br>Email<br>magl@csulb.edu<br>Website<br>www.csulb.edu/economics<br>FAX<br>(562) 985-5804<br>Faculty<br>Professors<br>Mahyar Amouzegar, Jack W. Hou, Sal Kukalis, Joseph P. Magaddino, Wade E. Martin, Kristen A. Monaco<br>Associate Professor<br>Omer Benli<br>Assistant Professors<br>Rebecca W. Braeu, Seiji S.C. Steimetz<br>Graduate Advisor/Associate Director<br>Kristen A. Monaco

## Master of Arts in Global Logistics (code ECONMA02)

The Master of Arts in Global Logistics is a Pilot Program effective from Fall 2002 through Spring 2007.

## Prerequisites

1. A bachelor's degree with a grade-point average of 2.75 or better. A student whose overall grade-point average is less than 2.75 , but who possesses a strong employment history in supply chain management or logistics or who possesses a recent record of academic excellence by completion of certificate or other coursework, may be admitted by special action of the Admissions Committee.
2. Students are required to submit: a completed application form; transcripts of all undergraduate and graduate coursework; two letters of recommendation from members of the academic profession under whom the applicant studied or from individuals in positions of leadership with whom the applicant worked; and a statement of the applicant's interest in pursuing a career in global logistics.

## Advancement to Candidacy

Satisfy the general requirements of the University for advancement to candidacy.

## Course Requirements

Completion of a minimum of 30 units beyond the bachelor's degree and graduate coursework as follows:

1. Core requirements ( 15 units): Satisfactory completion of ECON 500, 555; GLG 556 and MGMT 500 and 541.
2. Satisfactory completion of at least one course in each of the following three emphases ( 9 units):
A. International Emphasis (MGMT 543);
B. Transportation Planning and Policy Emphasis (CE 522, PPA 550, or PPA 541); and
C. Coordination, Negotiation and Conflict Resolution Emphasis (PPA 570 or HRM 654).
3. Satisfactory completion of a Concentration Emphasis by completing one additional course (3 units) in either:
A. International Emphasis (MGMT 543);
B. Transportation Planning and Policy Emphasis (CE 522, PPA 550, or PPA 541); or
C. Coordination, Negotiation and Conflict Resolution Emphasis (PPA 570 or HRM 654).
4. Completion of GLG 655 (3 units).

## Global Logistics Courses (GLG)

## 556. Economics of Logistics Management (3)

Prerequisites: M.A.G.L. core (ECON 500 and MGMT 500).
Analysis and design of domestic and international logistics systems. Topics include: transportation, warehousing, inventory control, materials management, systems design and organization. Letter grade only (A-F).

## 560. Research Methods for Global Logistics (3)

Prerequisites: M.A.G.L Core (ECON 500 and MGMT 500).
Applications of research methods to topics in logistics. Topics include: developing a research question, performing a literature review, data collection, and statistical analysis.
Letter grade only (A-F).

## 655. Seminar in Global Logistics (3)

Prerequisites: Completion of at least 27 units in the M.A.G.L. program.
A capstone seminar in global logistics. Students will complete a major research project that allows them to integrate their knowledge of global logistics. Each student will submit a research paper and will be required to make an oral presentation of their research.
Letter grade only (A-F).

# HEALTH CARE ADMINISTRATION 

College of Health and Human Services

Program Director<br>Tony Sinay<br>Department Office<br>Engineering Technology Building (ETec), Room 101<br>Telephone<br>(562) 985-5694<br>Faculty<br>Professor<br>Connie J. Evashwick, Tony Sinay<br>Associate Professor<br>Janice Frates<br>Assistant Professor<br>Cynthia Saunders<br>Administrative Assistant<br>Deby McGill

The Health Care Administration program has four major objectives: (1) to provide course work and related experience in order to prepare administrators, skilled in the application of organizational and managerial techniques, for the health care system; (2) to provide continuing education for health administrators in practice as well as others in administrative and leadership positions in the management and the delivery of health services; (3) to consult and to participate in community service activities which complement the instructional and research functions of the faculty and provide appropriate learning experiences for students; and (4) to conduct studies in the administration and operation of the health care delivery system which will contribute to development of faculty teaching abilities and overall professional growth.

The program is designed for the professional administrator or those who wish to become administrators within health care. Five programs are offered:

1. Master of Science in Health Care Administration
2. Bachelor of Science in Health Care Administration
3. Master of Science in Nursing/Master of Science in Health Care Administration
4. Master of Science in Health Care Administraton --Accelerated Program
5. Certificate in Health Care Administration

The schedule of graduate and undergraduate course offerings is in the regular Schedule of Classes.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Health Care Administration (code HCA_BS01) (120 units)

## Requirements for Admission

## Prerequisites

1. All students must complete a minimum of 15 semester units or the equivalent in prerequisite preparatory courses for the major: ACCT 201, ECON 101 or 300, IS 233, SOC 250 (or equivalent) and BIOL 200 (or equivalent). These courses may be taken after admission to the Program. Computer proficiency in word processing, spreadsheet, database and presentation software is expected. Business calculus (MATH 115) is recommended.
2. An overall grade point average of 2.0 or higher is required for entrance into the program. A minimum grade of " C " is required for each prerequisite course.

## Requirements

1. Complete the requirements for General Education
2. Complete the prerequisite courses
3. Complete the major core course requirements: HCA 312, 340, 341, 353, 402, 410, 416, 450, 465, 480, HSC 150 and HSC 400
4. Upper Division (required elective courses): A minimum of 9 additional units from the following: HCA 320, 422I, 439, 451*, 452, and 470I
5. Complete electives as needed, to total 120 semester units
6. Fulfill the Graduation Writing Assessment Requirement (GWAR)
7. Each major course must be completed with a grade of " $C$ " or better. A course in which a grade lower than " $C$ " is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a " $C$ " may proceed with other courses for which it is not a prerequisite with approval of the Undergraduate Advisor.

## GRADUATE PROGRAMS

## Master of Science in Health Care Administration (code HCA_MS01)

The goal of the M.S. in Health Care Administration program is to prepare individuals to enter administrative positions in hospitals and ambulatory care centers, managed care, long-term care, and mental health settings as well as in multi-institutional system central offices, governmental health agencies, and other health related organizations. Students completing the M.S. in Health Care Administration will achieve the following objectives:
(I) Demonstrate knowledge of the U.S. health care system and fundamental issues affecting the administration of health care services, (2) Demonstrate organizational and managerial knowledge and skills essential to administrative positions in health care services, (3) Demonstrate specialized knowledge and skills in a variety of functional areas in health care administration, including financial management, marketing, job analysis, compensation management, or public policy analysis, (4) Use ethical principles within administrative positions of responsibility in health care services, and (5) Demonstrate the ability to conduct studies in the organization, financing, administration, and operation of health care delivery systems. The program is designed for persons with a variety of undergraduate experiences who give evidence of interest and potential success in health care management and/or research.

## Admission Requirements

Each applicant should request that a copy of all college course work and GMAT scores be sent to the graduate adviser, Health Care Administration Program, in addition to the copies required by the Office of Admissions and Records. In addition, a current resume should be sent to the Program along with three letters of recommendation.

## Admission Criteria

1. Baccalaureate degree from an accredited institution
2. Baccalaureate degree with a minimum of 12 units of course work to include: accounting and financial management, economics, information systems, and statistics
3. An applicant must have an overall undergraduate grade point average of 3.0 or better. Those applicants with less than 3.0, but with acceptable evidence of professional potential shown through recent academic performance and experiential background, may be admitted by special action of the Program Graduate Committee
4. Interview with member of faculty or preceptor may be required
5. A current and complete resume including references
6. Submission of scores on recent Graduate Management Admission Test (GMAT).

## Prerequisites

The following courses or their equivalent:

1. ACCT 201
2. ECON 101 or 300
3. Statistics
4. IS 233 (or equivalent)

Students should contact the Program director for a determination of deficiencies and required remediation.

## Requirements

1. Completion of graduate level course work in Health Care Administration: HCA 451, 502, 505, 510, 515, 517, 524, 530, 535, 550, 695 and HSC 500.
2. Completion of any one of the courses in site specialization: HCA $536,537,538,539,540$, or 552 , or completion of an approved elective course.
3. Completion of a minimum of 45 units including HCA 580 Internship in Health Care Admininstration and HCA 698 Project.

## Advancement to Candidacy

Students will be instructed to apply for advancement to candidacy after:

1. Completion of 6 units of core course work that applies to the degree with an average grade of " $B$ " or better,
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR), and
3. Approval of Program Director.

## Accelerated Program (code HCA_MS01)

The Master in Health Care Administration Accelerated Program (MSHCA-AP) is designed to prepare working professionals for administrative positions in health care organizations which requires minimum three years of work experience and combines online and in-class instruction. The MSHCA-AP program requires 45 credit hours consisting of 14 core courses and an internship experience of 3-credits, which may be substituted by HCA 599 Special Topics. The program offers foundation courses early and more advanced healthcare administration specific courses later in the Program.

## Accelerated Education Model

## Year I

First Quarter - Fall
Orientation No Credit

1. HCA 451
2. HCA 505

Second Quarter-Winter
3. HCA 502
4. HSC 500

Third Quarter-Spring
5. HCA 524
6. HCA 515

Fourth Quarter-Summer
7. HCA 535
8. HCA 510

## Year II

First Quarter-Fall
9. HCA 530
10. HCA 517
11. HCA 698 Project-Part I (1 unit)

Second Quarter-Winter
12. HCA 537
13. HCA 550

Third Quarter-Spring
14. HCA 698 Project-Part II (2 units)
15. HCA 695

Fourth Quarter-Summer
16. HCA 580
17. GS 700 [if students don't complete HCA 698 in time]

## Certificate in Health Care Administration (code HCA_CT01)

The Certificate Program in Health Care Administration is comparable to a minor of 18 semester units and, with prerequisite course work, may require up to 24 semester units for completion. Components of the program include the forms of organization and operation of health care systems, human resources management, leadership and development, financial management, and marketing. The Certificate
may be combined with major programs from a variety of fields including, but not limited to, behavioral and natural sciences, humanities, health professions, business and public administration, and social work and is conferred as a post-baccalaureate certificate (or concurrently with the BS/BA). The courses taken for the certificate (with a grade of "B" or better) may apply toward the MS program at the discretion of the Program Director.

Health care administrators are usually prepared at the masters' degree level for job entry into upper management. There is, however, increased emphasis to prepare health care professionals to function as managers at other levels as well. Increasingly, physicians are also seeking preparation in the elements of management. These diverse groups use management skills in the health services and related fields. These include hospitals, nursing homes, health departments, health maintenance organizations, health planning and regulatory agencies, health management and review companies, group medical practices, health insurance firms, pharmaceutical and medical supply companies.

## Requirements

1. Admission to the University
2. A bachelor's or advanced degree with transcripts (conferred or expected)
3. Consultation with the Program Director
4. A minimum of 18 units is required and may include: HCA 312, $341^{*}, 353+, 402,410$ or the equivalent. At the graduate level HCA 502, 505, 510, 515, 530 or equivalent courses are considered for the Certificate Program.

* Prerequisite: ACCT 201
+ Prerequisite: ECON 101
Course substitutions may be made at the consent of the Director.


## Master of Science in Nursing/Master of Science in Health Care Administration (code NRSGMC01)

The Department of Nursing and Health Care Administration Programs offer a concurrent Master of Science in Nursing and Master of Science in Health Care Administration dual degree available to qualified students who desire advanced preparation in the areas of nursing and health care administration with a practice focus as Advanced Practice Nurses in administration. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two degree programs each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines. The joint Master of Science in Health Care Administration and the Master of Science in Nursing provides the opportunity for students to specialize as advanced practice nurses with emphasis in administration and increasing competence in designing, implementing, and evaluating programs in preparation for serving in various health organizations. An important career path for advanced practice nurses is as nurse executive in the
variegated segments of the health care industry including entrepreneurial activities. Courses are interdependent and have been structured to provide clinical depth in the areas of nursing and administration.

Each applicant should request that a copy of official transcript of all college course work be sent to the Nursing Department Graduate Advisor and to the Office of Admissions and Records.

## Admission Requirements

1. Bachelors degree in nursing or currently enrolled in accelerated RN to Masters program. Those nurses with Baccalaureate degrees in health related fields may be conditionally admitted
2. Current license to practice as a registered nurse in California
3. Admission to graduate standing at the University
4. An upper division or graduate course in biostatistics (H/SC 403 or ED P 419)
5. Public Health Nurse Certificate, or eligibility for certificate in California
6. An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis
7. Submission of quantitative and verbal scores from the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT)
8. Three letters of recommendation from persons with whom the applicant has worked and who has direct knowledge of the applicant's qualifications
9. A separate personal statement of applicant's reasons for pursuing this field of study and comments about interests and experiences which are germane to career objectives
10. Current professional resume describing the applicant's relevant experience.

## Advancement to Candidacy

A joint committee, consisting of Nursing and Health Care Administration faculty involved in the program, will review files and make a determination to advance the candidate to graduate status. Student criteria for advancement are as follows:

1. Satisfy the general University requirements for advancement to candidacy in Nursing and Health Care Administration
A. fulfill the Graduation Writing Assessment Requirement (GWAR), and
B. have at least a 3.0 grade point average for all course work attempted as a graduate student
2. Joint approval by the Department of Nursing and Health Care Administration and the Associate Dean in the College of Health and Human Services.

## Requirements for Completion

1. A minimum of 57 units of approved Nursing and Health Care Administration upper division and graduate level courses including:
The Program of Study: NRSG 559, 560, 596, 680A, 680B, 680C, 680AL, 680BL, 680CL, 698, HCA 502, 505, 510, 515, 524, 530, 535, 550, 698
2. An overall GPA of 3.0 or better in all courses
3. Directed project or a thesis
4. *Graduate degrees obtained previously may be accepted toward meeting a portion of the unit requirements of the concurrent MSN/MSHCA degree program
5. If a student after entering the concurrent MSN/MSHCA program returns to a single degree program, all requirements for the single degree program must be met

* $60 \%$ of units must be earned in residence.


## Courses (HCA)

## LOWER DIVISION

## 202. Introduction to Health Care in America (3)

Prerequisites: Completion of GE Foundation requirements.
US health care system with its delivery and financing mechanisms as well as the technical, economic, political and social forces responsible for changes in the health care system. Contemporary issues such as access, cost and quality, health disparities among minority groups as well as gender disparities including sexual orientation.
Letter grade only (A-F).

## UPPER DIVISION

## 312. Health Personnel Management (3) S

Prerequisite/Corequisite: HCA 402.
The management of human resources in health care setting. Principles and methods of personnel work such as employee, recruitment, selection, retention, training, evaluation, and wage and salary administration, and labor management relations.
(Lecture) Letter grade only (A-F).
320. Operations Management in Health Administration (3) S

Prerequisite; SOC 250 or PSY 110 or equivalent. Prerequisite/ Corequisite: HCA 402.
The application of the concepts and methods of operations management to health care organizational setting. Emphasis on planning and control in management process.
(Lecture) Letter grade only (A-F).
340. Legal Aspects of Health Administration (3) S

Prerequisite/Corequisite: HCA 402.
Overview of health law issues. Government regulation including legal constraints; liability; negligence; patient rights; confidentiality; and corporate/administrative responsibility. Emphasis on business applications of health law.
(Lecture) Letter grade only (A-F).
341. Financial Management of Health Care Institutions
(3) F,S,SS

Prerequisite: ACCT 201. Prerequisite/Corequisite: HCA 402.
Application of the concepts of financial management within health care organizations, to include financial planning principles, reimbursement procedures, governmental regulation and legal restraints.
(Lecture) Letter grade only (A-F).
353. Marketing for Health Services Organizations (3) F,S Prerequisite: ECON 101 or 300.
Development of marketing strategies and analyses in a health care setting. Design of services to include pricing, communication, distribution channels, and client motivation and services.
Letter grade only (A-F).

## 402. The Health Care System (3) F,S,SS

Overview and developmental summary of the American health care system and its driving forces: Organizational forms; financing mechanisms; principal industry stakeholders; professional groups and workforce issues; public health and government.
(Lecture)
*410. Health Management and Organization (3) F,S Prerequisite/Corequisite: HCA 402.
Introduction to health care management practices and concepts.
Planning, decision-making, influencing, controlling, effecting change. Effects of environment, technology and human behavior on organizational design.
(Lecture) Letter grade only (A-F).

## 416. Management and Information Systems (3) F,S

Prerequisite/Corequisite: HCA 402 and IS 233 or equivalent.
Evaluation of concepts, analysis and design of management information systems; management decision models, strategies for implementing system changes.
(Lecture) Letter grade only (A-F).

## 422I. Global Issues in Health Services (3) F,SS

Completion of the GE Foundation, one or more Exploration courses and upper division standing. Examination of factors that impact global health; analysis of health care delivery systems and the governmental, economic, social and political forces that influence them.
(Lecture) Letter grade only (A-F).

## 439./539. Management Challenges in Long Term Care (3)

Prerequisite/Corequisite: HCA 402 or 502.
Functions and essential skills to manage LTC organizations and facilities: Institutional arrangements; Patient/family/community relations; workforce management; marketing; reimbursement. (Lecture) Letter grade only (A-F).

## 450./550. Continuous Quality Improvement in Health

 Services (3)Prerequisites: HCA 402 or 502; 465.
Administrative and professional issues to assure quality in health care: Historical beginnings; metrics and indicators; state-of-the-art practices; voluntary and governmental monitoring.
(Lecture) Letter grade only (A-F).
*451. Economics of Health (3) S
Prerequisites: ECON 101 or 300.
Application of microeconomics principles to the health care industry; economic behavior of health care systems, and institutions. Third party payment systems, asymmetric information and health care markets.
Not open for credit to students with credit in ECON 345 or 445. Same course as ECON 445. (Lecture)
452./552. Medical Group Practice Management (3) F

Prerequisite/Corequisite: HCA 202, 402 or 502; and HCA 450 or 550; and HCA 341 or 515.
Fundamental operational responsibilities of medical group administration today, with emphasis on managed care delivery systems.
(Lecture) Letter grade only (A-F).
465. Analysis and Evaluation of Health Care Services (3) F,S,SS
Prerequisite or Corequisite: HCA 202 or 402 and Prerequisite: PSY 110 or SOC 250 or equivalent.
Techniques of analysis and evaluation applied to health services with respect to organizing, staffing, financing and utilization. Emphasis on the analytic process, program evaluation, and report of findings.
Letter grade only (A-F).

## 470I. Latinas/Latinos: Health Status and Health Care

 Access (3)Prerequisites: Completion of GE Foundation, one or more Exploration Courses, upper division standing.
Interdisciplinary exploration of policies, epidemiologic, cultural factors influencing disease within Latino subpopulations, their impact upon efficient, equitable service delivery.
Same course as CHLS 470l. (Lecture) Letter grade only (A-F).

## 480./580. Internship in Health Care Administration (3) F,S,SS

Prerequisites: HCA 341, 353, 402, 410, 416, 465 and HSC 150.
Minimum 120 hours of structured work experience in a health care organization, under direct supervision of a preceptor-employee.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

## 490. Special Topics in Health Care Administration (1-3) F,S

Topics of special interest in health care administration selected for intensive study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 499. Directed Studies (1-3) F,S

Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.

May be repeated to a maximum of 6 units with approval of Health Care Administration Program Director. Letter grade only (A-F).

## GRADUATE LEVEL

## 502. The Health Care System (3) F,S,SS

Overview, developmental summary of the American health care system and its driving forces. Major elements of the healthcare system; today's major health policy issues in a historical, economic and political context.
(Lecture) Letter grade only (A-F).

## 505. Organization and Systems of Health Care (3) F

Analysis of operational activities and managerial functions essential to the health care delivery system, with emphasis on management and leadership influence on developing effective systems of care within various institutional arrangements. (Lecture) Letter grade only (A-F).

## 506. Epidemiology for Managers (1) W

Analysis of patterns of health and disease and how these impact on health delivery in the U.S. and abroad. Planning health services based on distribution of acute and chronic disease in populations.
(Seminar)

## 510. Human Resources Management in Health Care (3)

## S

Management of human resources in the health care system including human resource planning and staffing, training and development, performance appraisal, job design and analysis, and compensation.
Letter grade only (A-F).

## 515. Advanced Financial Management in Health Care (3)

 FPrerequisite: ACCT 201 or 500.
Financial environment, payment systems, discounted cash flow analysis, risk, financial statements, capital investments, and capital budgeting. Emphasis on decision making using accounting and finance theories, principles, concepts and techniques.
(Lecture) Letter grade only (A-F).

## 517. Advanced Healthcare Information Systems Management (3)

Prerequisite: HCA 416, 502, 530 or consent of instructor.
Broad overview of healthcare information systems; close examination of business needs for the information technology (IT) to deliver cost-effective quality health services.
(Discussion) Letter grade only (A-F).

## 524. Advanced Legal and Ethical Aspects of Health Administration (3)

Federal and state regulation of health care facilities, employees, patients and programs. Ethical and legal perspectives on malpractice, liability, contracts, informed consent, end-of-life decisions, reproductive health, medical records, confidentially and required disclosures.
(Lecture) Letter grade only (A-F).

## 530. Strategic Planning and Marketing in Health Care (3)

 S,SSPrerequisite/Corequisite: HCA 502.
Strategic planning based on analysis of analyses of secondary quantitative and qualitative data to study changes in technological, social, political, regulatory, and competitive aspects of the health care market.
Letter grade only (A-F).
535. Quantitative Methods for Health Administration (3) F

Prerequisite: Statistics.
Application of quantitative and operations research techniques to problems in health care settings. Exposure to decision theory and control systems. Problem solving experiences in resource allocation, procedures, scheduling, forecasting, measurement and cybernetic control.
Letter grade only (A-F).

## 536. Hospital Management (3) F

Prerequisite: HCA 505.
Analysis of hospitals by broad function and specific departments through cases, simulations and visits to develop familiarity with internal operations of acute care hospitals and skills in solving hospital operational problems.
(Lecture)

## 537. Managed Care (3)

Prerequisite: HCA 402 or 502.
Orientation to the organization and administration of health maintenance organizations, preferred provider organizations and related enterprises. Legal and regulatory issues, marketing, utilization management, premium rating systems, information systems, case/disease management.
(Seminar 3 hours)

## 538. Long Term Care Management (3) SS

Prerequisite: HCA 402 or 502.
Overview of long term care services and facilities. Analysis of forces influencing development of long term care in the US; specific organizational aspects affecting outcomes of services.
(Lecture) Letter grade only (A-F).
539./439. Management Challenges in Long Term Care (3)

Prerequisite/Corequisite: HCA 402 or 502.
Functions and essential skills to manage LTC organizations and facilities: institutional arrangements; patient/family/community relations; workforce management; marketing; reimbursement. (Lecture) Letter grade only (A-F).

## 540. Long Term Care in Action (3)

Prerequisite: Undergraduate degree or consent of instructor.
Visits to local organizations providing long term care in a variety of settings.
(Lecture activity) Letter grade only (A-F).
550./450. Continuous Quality Improvement in Health Services (3)
Prerequisites: HCA 402 or 502 , and HCA 465.
Administrative and professional issues to assure quality in health care: Historical beginnings; metrics and indicators; state-of-the-art practices; voluntary and governmental monitoring.
(Lecture) Letter grade only (A-F).
552./452. Medical Group Practice Management (3) F

Prerequisite/Corequisite: HCA 202, 402 or 502; and HCA 450 or 550; and HCA 341 or 515.
Fundamental operational responsibilities of medical group administration today, with emphasis on managed care delivery systems.
(Lecture) Letter grade only (A-F).
580./480. Internship in Health Care Administration (3)

Prerequisites: HCA 502, 505, 510, 515, 524, 530, 535, 550.
Minimum 120 hours of structured work experience in a health care organization, under direct supervision of a preceptor-employee. Graduate students study and report on institution's organizational structure, philosophy, problems and personnel.
May be repeated to a maximum of six units in different semesters. Letter grade only (A-F).

## 590. Special Topics (1-3)

Prerequisite: Consent of Instructor.
Topics of current interest in the various fields of Health
Administration and Health Services Management selected for special presentation.
Topics will be announced in the Schedule of Classes each semester. Courses may be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## 599. Directed Studies (1-3) F,S

Directed study of a special topic to be taken under supervised independent study.
May be repeated for a maximum 6 units with different topics in different semesters. Letter grade only (A-F).
695. Integrative Seminar: Critical Analysis of the Health Care System (3) S
Prerequisites/Corequisites: HCA 580, 698.
Systemic, ecological approach to an advanced, critical analysis of U.S. health care system. Emphasis on public policy determinations that have influenced system development, relevant problems, issues.
Letter grade only (A-F).
698. Project (1-3) F,S

Prerequisites: All 500-level courses, and consent of instructor.
Student will investigate a problem for a community health care institution; and recommend potential courses of action.
May be repeated to a maximum of six units. Letter grade only (A-F).

# HEALTH SCIENCE 

College of Health and Human Services

Department Chair<br>Robert H. Friis<br>Department Office<br>Health and Human Services (HHS) 2, Room 115<br>Telephone<br>(562) 985-4057<br>Faculty<br>\section*{Professors}<br>Dale W. Evans, Gail Farmer, Mohammed R. Forouzesh, Robert H. Friis, Sarath Gunatilake, Alan Henderson<br>\section*{Associate Professors}<br>Veronica Acosta-Deprez, Stephanie L. Eatmon, Gina Piane, Britt K. Rios-Ellis<br>Assistant Professor<br>Javier Lopez-Zetina<br>Liaison, CSULB/VA Joint Studies Institute<br>Robert H. Friis<br>Director, Graduate Studies<br>Mohammed R. Forouzesh<br>Director, Undergraduate Studies<br>Sally Champlin<br>Director, Radiation Therapy<br>Stephanie Eatmon<br>Clinical Coordinator, Radiation Therapy<br>Cheryl Brady<br>Advisor, Single Subject Credential<br>Dale W. Evans<br>Administrative Support Coordinator<br>Mark Vela

The Department offers undergraduate and graduate study in Health Education, and an undergraduate option in Radiation Therapy. For program information, students should contact the department office for referral to one of the faculty advisors: Director of Undergraduate Studies, Director of Radiation Therapy, Director of Graduate Studies or Single Subject Credential Advisor.

All Health Science majors and minors are responsible for requirements specified in the University Catalog. Students should meet periodically with either the Director of Undergraduate Studies, the Director of Radiation Therapy, or the Director of Graduate Studies. Faculty advisors will discuss and review the student's academic program, program requirements and monitor academic progress. Students also have responsibility for keeping track of unit totals required for graduation and insuring that these requirements are met.

## Program in Health Education

Health education programs help participants enhance health, prevent disease and disability, as well as help
improve the well-being of people in organizations, schools, businesses, and communities. The program focuses on environmental influences, which include the cultural and societal context in which health behavior occurs; it also emphasizes processes for developing and changing individual attitudes and behaviors toward health.

The focus of health education is on planned change. Individuals are encouraged to take responsibility for their own health and to assume responsibility for the health of their families and communities.

As our society continues to change, health problems are redefined. Future health advances will not only come from new technology, but also as the result of community, group, and individual actions. These factors will impact education, lifestyle, environment, and the organization and delivery of health services.

Brochures that describe each of the programs are available at the Health Science Department office.

Courses are designed to satisfy Health Science
requirements for:

1. general education,
2. the baccalaureate degree major,
3. Single Subject Teaching Credential in Health Science,
4. Master of Science Degree with a Major in Health Science,
5. Master of Public Health Degree in Community Health Education.
6. Master of Science in Nursing/Master in Public Health

## Bachelor of Science in Health Science

The basic University requirements for graduation with a B.S. Degree in Health Science consist of:

1. completion of general education requirements,
2. completion of all courses identified on the Program Planner for the Option selected, with no grade lower than a "C" for each listed course or approved substitute,
3. completion of a minimum of 120 units, at least 40 units of which must be upper division. Upper division courses are numbered 300 to 499.

## Major Core Requirements

All Health Science majors must complete the required core. The core of the Health Science program contains five areas of competence: Statistics, Program Development, Professionalism, Health Services Organization and Health Promotion. All majors must complete at least one course from each competency area. Courses must be selected in consultation with an advisor.

## Option in Radiation Therapy (code HSC_BS01) (135 units)

## Admission Under Impaction

The number of applicants to the Radiation Therapy Option exceeds the number that can be accepted. For this reason, the Radiation Therapy Option has been designated
as impacted by the California State University. Applicants are subject to supplemental criteria in addition to the requirements for admission to the University. Admission is on a competitive basis and is determined on the basis of meeting all of the following supplemental criteria.

Option in Radiation Therapy Technology. Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed the following prerequisite courses, each with a grade of "C" or better: BIOL 200, 207, and 208; MICR 101; H SC 200; MATH 199A; PHYS 100A and B; I S 233; and ENGL 102 ( 15 of these 35 units may be doublecounted as General Education). Applicants must have completed a 40-hour observation period in a department of radiation therapy and an observation packet. Applicants must submit a supplemental application to the department by February 1 for the fall semester. The application must be accompanied by 3 letters of recommendation (at least one from a radiation therapist at the observation site noted below, and the others from either employers or instructors), a written personal statement, a summary of academic and work history, and documentation of the availability of transportation to clinical sites for the required internship. Applicants must participate in an interview with the Radiation Therapy Career Advisement Committee. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission on a space-available basis according to the faculty's judgment of their ability to succeed in the program. To apply to the Radiation Therapy Option, students must meet all of the requirements listed above.

## Admission Under Impaction for Continuing Students

Students who indicate a Radiation Therapy Option major when they enter as freshmen will be assigned a preRadiation Therapy major code. Acceptance into the premajor by the university does not imply or assure subsequent acceptance into the Option by the Department. Students who are not accepted into the Option cannot continue as pre-Radiation Therapy majors.

Prior to admission to the Radiation Therapy Option, continuing students must

1. Complete all of the basic criteria listed above
2. Complete HSC 200 Orientation to Radiation Therapy with a grade of "C" or better.
3. Submit Option Application by February 1.

## Admission Under Impaction for Transfer Students

Students must be eligible for admission to the university as transfer students and must apply for admission to the university no later than November 30 for admission the following fall. Students who are not admitted to the Option will not be admitted to the university unless they have listed a second choice of major on the application form.

Prior to admission to the Radiation Therapy Option, transfer students must:

1. Complete all of the basic criteria listed above
2. Schedule an appointment with the Radiation Therapy Program Director or Clinical Coordinator
3. Attend a group Radiation Therapy Orientation session
4. Submit by February 1 the Option application

The Radiation Therapy Option is designed for individuals who wish to pursue a professional preparation program leading to membership in the health care team using ionizing radiation in the treatment of malignant and some benign diseases. The Option is competency-based and integrates didactic courses and clinical experience to prepare entry level radiation therapists to become integral partners in the health care team and contributing members of the profession. On a daily basis, the registered radiation therapist is involved in:

1. Operation of sophisticated radiotherapeutic equipment to deliver prescribed doses of ionizing radiation for the treatment of malignant and some benign diseases.
2. Providing psychological and emotional support to patients who are dealing with the stress of their illness.
3. Providing education to the patient and their family about their disease and all aspects of treatment.
4. Observing patient progress and recognizing medical problems that require a physician's attention.
5. Constructing devices to aid in treatment positioning, beam modification, and treatment planning.
6. Calculation of doses and use of treatment planning computers to determine dose distributions.
Successful completion of the Option requirements allows the student eligibility to apply for licensure examinations at the state and national levels to practice as a registered radiation therapist.

This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT, 20 N. Wacker Drive, Suite 900, Chicago, II 60606-2901, phone 312-704-5300) and the State of California, Department of Health Services, Radiologic Health Branch.

## Required Radiation Therapy Option Courses

Students will take the following courses in sequence: HSC 150, 320, 310, 340, 341, 315, 492A ( 5 units), 492A summer (2 units), 470A, 445A, 330, 311, 403, 470B, 445B, 342, 415, 435, 492B summer (2 units), 492B (5 units), 316, 451, 455, 475, 475L, 480 and 465.

All Radiation Therapy courses must be completed with a grade of " $C$ " or better. If a student earns a lower grade, the student must repeat the course and earn an acceptable grade before advancing to the next level of courses.

## Option in Community Health Education (code HSC_BS02) (120 units)

The Community Health Education option is designed for persons whose occupational objective is to serve as a community health educator with an official, voluntary, or corporate health agency.

Lower Division: BIOL 200, 205, and either CHEM 100 or 111A; MICR 101; an additional anatomy and physiology, BIOL or MICR course approved by department advisor; Spanish (3 units) or language approved by Department Advisor.

Upper Division: H SC 301, 400, 401, 402, 403, 405, 421, 430, 435, 440, 485; Three courses selected from the following: H SC 420, 422, 423, 425I, 427, 429, 490, 499; one course selected from the following: NUTR 132 or 430; one course selected from the following: PSY 351 or SOC 3351; one course selected from the following: SOC 320, 336, 462, 464; and one course selected from the following: COMM 334, 335.

## Option in School Health Education (code HSC_BS03) (120 units)

The School Health Option is designed for persons who wish to become health science teachers in California middle/ high schools. The program is approved by the California Commission on Teacher Credentialing and meets subject matter competence requirements for the Health Science Preliminary Single Subject Credential (code 130).

In addition to meeting the subject matter competence requirement for the Preliminary Single Subject Credential in Health Science, prospective Health teachers are also required to complete an additional 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching as an undergraduate. Courses may also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced. csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. A student may enroll in the credential program prerequisite course, EDSS 300D, after completing 80\% of the required lower division, upper division, and subject matter courses. Prospective students should consult the department's Health Science Single Subject Advisor early to plan their program.

The Health Science Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: BIOL 200, 205; MICR 101; CHEM 100 or 111 A , approved anatomy and physiology, BIOL or MICR course. PSY 100, Spanish (3 unit minimum) or language equivalent approved by HSC department advisor.

Upper Division: COMM 335 or approved upper division COMM course, EDP 302 or HDEV 307 or PSY 361, ETEC 444, NUTR 132 or 430. Select one course from: ANTH 329, FCS 319, HSC 420, PSY 378, SOC 320, 423.

Subject Matter Courses: HSC 210, 301, 401, 403, 421, 422, 423, 425I, 427, 430, 435, 440

## Option in Health Care (code HSC_BS04) (120 units)

The Option in Health Care is designed for those individuals who have received certification and/or license from an approved allied health/health care program and desire a Bachelor of Science degree. The focus of this option is the development of professional skills for people whose goal is: (a) providing service, or (b) instructing in the health care setting.

## Admission Requirements

Once admitted to the University, students are required to complete the following prior to acceptance into the Health Care Option.

1. Obtain certification and/or license from an allied health/ health care program from an institution that has been accredited by either a Committee on Post-secondary

Accreditation (COPA) approved accreditation agency or the Committee on Allied health Education and Accreditation (CAHEA). Those individuals who do not have appropriate certification will be counseled by the Department of Health Science regarding where to obtain an appropriate accredited program, and, when possible, concurrent enrollment may be utilized;
2. Earn a minimum GPA of 2.0.

Lower Division: Completion of general education requirements to include: ENGL 100; one of the following: ANTH 120, SOC 100 or PSY 100; and minimum of 12 units in Natural Sciences, approved by department advisor equivalent to: BIOL 200, 205, MICR 101 and an additional anatomy and physiology, BIOL or MICR course approved by faculty advisor; either CHEM 100 or 111A,
Upper Division: (39 units): Required Core: 15 units (three units from each area); courses must be selected in consultation with an option advisor:
A. Statistics: H SC 403 or ED P 419;
B. Program Development: H SC 430 and H CA 320, or H SC 455 and 316;
C. Professionalism: H SC 451 or HCA 340;
D. Health Organization: H SC 401 or 420;
E. Health Promotion: H SC 435 or HCA 402;

## Additional Coursework

H SC 400 and one of the following: HDEV 320 or H SC 405; one of the following: ANTH 353, NUTR 430, H SC 424, or SOC 462; one of the following: POSC 329, or ECON 300; An emphasis in either:
A. Providing Services (12 units): HCA 410, 465; one of the following: ED P 434B, H SC 421 or 492A/B and one of the following: ANTH 319, GERN 400I, 482, or NRSG 482; or
B. Instructing in the Health Care Setting (12 units): HCA 410, 465 and one of the following: H SC 492A/B (3 units), or ED P 432; and one of the following ED P 305, 434B or HSC 421.

## Minor in Health Science (code HSC_UM01)

Twenty-four units as follows: H SC 301, 401, 430, 435, 440, and three courses from: H SC 400, 420, 421, 422, 423, 425I, 427.

## Single Subject Credential in Health Science (code 130)

The Single Subject Teaching Credential in Health Science prepares one to teach health science in California middle/ high schools. Requirements include: a) Bachelor of Science Degree in Health Science with a completion of the school health option from a program approved by the California Commission on Teacher Credentialing or BS/BA and a passing score on the CSET in Health Science b) GPA of 2.75 on the last 60 semester units c) Professional education courses beyond the B.S. which begin with EDSS 300D: Introduction to Teaching Health Science d) student teaching in health science. See the Health Science Single Subject Advisor

The Health Science Subject Matter Program is being revised to meet new state standards when the revised program has been approved by the Commission on Teacher

Credentialing, the new course requirements will be in effect and supersede current catalog copy.

For additional information about teaching in California middle/high schools, see the Single Subject Teacher Education Program.

## Graduate Program in Health Education

Accredited by the Council on Education for Public Health (Council on Education for Public Health, 1015 Fifteenth Street, NW, Washington, DC 20005, phone: 202-789-1050).

In order to be admitted to the graduate program for study toward a degree, a prospective candidate must apply both to this department and the University. Contact the Director of Graduate Studies for current requirements.

## Master of Science in Health Science (code HSC_MS01)

The Master of Science program is designed to provide students with:

1. intensive study of health education concepts, theories, and processes;
2. introduction to public health concepts and issues;
3. research methodology appropriate to the in-depth examination a health topic.
The graduate student is also prepared for a leadership role in a school or community setting and for admission to doctoral programs at other colleges and universities. Admitted graduate students must contact the Director of Graduate Studies for advisement early in their first semester of enrollment in order to develop an approved program of study.

## Admission Requirements

Applicants must apply both to the Department and the University. Applications are available from the Department office.

1. Each applicant must request a copy of official transcript(s) of all work be sent to the Graduate Director in the Health Science Department in addition to the transcripts required by the Office of Enrollment Services.
2. A bachelor's degree with a major in health education, which articulates with the course requirements for the same degree at California State University, Long Beach; or a bachelor's degree in a related discipline with a minimum of 21 units of upper division course work comparable to that required of the Health Science major at the University; or a bachelor's degree in a related discipline and willingness to make up any deficiencies in prerequisite Health Science courses. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit obtained by (1) written examination on the subject matter or (2) providing documented evidence of currency in the subject area.
3. An overall undergraduate GPA of at least 3.0. Students with less than a 3.0 GPA on the last 60 units of undergraduate units attempted, but who show promise in all other aspects, may be given special consideration after petitioning for conditional admission into the program through the Director of Graduate Studies.
4. Acceptance by the University as a student with graduate standing.
5. A maximum of 9 units of approved graduate work at the postbaccalaureate level may be credited to a student's program requirements upon Departmental acceptance to the graduate program.
6. Submission of the analytic, quantitative and verbal scores from the Graduate Record Examination (GRE) and a copy of the CSU graduate application to the Department.
7. Three letters of recommendation from persons with whom the candidate has worked and who have direct knowledge of the applicant's qualifications and potential as a community health educator.
8. A separate personal statement of reasons for pursuing this field of study and comments about interests and experience that are germane to career objectives. Submit a personal resume reflecting the applicant's education and relevant work experience.

## Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy:
A. fulfill the Graduation Writing Assessment Requirement (GWAR);
B. maintain at least a 3.0 average for all course work attempted as a graduate student;
C. complete H SC 500, 503, and 570;
2. Approval by the Director of Graduate Studies and the Associate Dean of Academic Programs of the College of Health and Human Services.

## Requirements for Completion of the Master of Science

1. A minimum of 43 units of approved upper division and graduate courses including:
A. 21 units of Health Science courses, which include HCA 502, H SC 500, 503, 570, 581, 696;
B. 18 units of electives in a specialty field;
C. 4 units of H SC 698;
2. A thesis with an oral exam.

## Master of Public Health

## Option in Community Health Education (code HSC_MH01)

The Master of Public Health in Community Health provides an opportunity for students to specialize in community health education and health promotion within the general context of Public Health, to increase competence in designing, implementing, and evaluating social behavior changes in program planning in preparation for serving in various health agencies, prepare for teaching at college and university levels and for administrative positions in public and private health agencies.

## Admission Requirements

Applicants must apply both to the Department and the University. Applications are available from the Department office.

1. Each applicant must request that a copy of official transcript(s) of all work be sent to the Director of Graduate Studies (in addition to the copies required by the Office of Enrollment Services).
2. A bachelor's degree with a major in health education, which articulates with the course requirements for the same degree
at California State University, Long Beach; or a bachelor's degree in a related discipline with a minimum of 21 units of upper division course work comparable to those required of the Health Science major at the University; or a bachelor's degree in a related discipline and willingness to make up any deficiencies in prerequisite Health Science courses. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit obtained by (1) written examination on the subject matter or (2) providing documented evidence of currency in the subject area.
3. An overall undergraduate GPA of at least 3.0. Students with less than a 3.0 GPA on the last 60 units of undergraduate units attempted, but who show promise in all other aspects, may be given special consideration after petitioning for conditional admission into the program through the Director of Graduate Studies.
4. Acceptance by the University as a student with graduate standing.
5. A maximum of 9 units of graduate work at the postbaccalaureate level may be credited to a student's program requirements upon Departmental acceptance to the graduate program.
6. Submission of a copy of the CSU graduate application and quantitative and verbal scores from the Graduate Record Examination (GRE) to the Department.
7. Three letters of recommendation from persons with whom the applicant has worked who have direct knowledge of the applicant's professional and academic potential as a health educator.
8. A separate personal statement of reasons for pursuing this field of study and comments about interests and experience that are germane to career objectives. Submit a personal resume reflecting the applicant's education and relevant experience.
9. At least one year's full-time (or equivalent) paid or volunteer experience in Health Education or a closely related health field. Preference will be given to those with greater experience and ability.

## Advancement to Candidacy

1. Satisfy the general university requirements for advancement to candidacy:
A. fulfill the Graduation Writing Assessment Requirement (GWAR);
B. maintain at least a 3.0 average for all course work attempted as a graduate student;
C. complete H SC 500, 503, and 570;
2. Approval by the Director of Graduate Studies and Associate Dean for Academic Programs of the College of Health and Human Services.

## Requirements

1. A minimum of 42 units of approved upper division and graduate-level courses including:
A. Core: HCA 502, H SC 500 or MICR 429, H SC 503 or BIOL 565 (4), 508, 528, 570, 581, 624, 625, 626, 696;
B. Electives at the 500/600 level;
C. H SC 585, a supervised internship experience (6 units)
2. A comprehensive written examination (see Department for guidelines).

## Master of Science in Nursing/Master of Public Health (code NRSGMN01)

The Departments of Nursing and Health Science offer a concurrent Master of Science and Master of Public Health degree available to qualified students who desire advanced preparation in the area of public health nursing with a practice focus on primary prevention, illness prevention, and health promotion. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two Departments in each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines and community services to promote health. The Master of Science and Master of Public Health (Health Education Option) provides the opportunity for students to specialize in advanced practice public health nursing within the general context of the Masters of Public Health, to increase competence in designing, implementing, and evaluating behavior change programs in preparation for serving in various health agencies. The focal point in this curriculum is the Nursing Process, Epidemiological Process Model, and Population Based Theory complemented by behavioral science concepts. Courses are interdependent and have been structured to provide clinical depth in the area of advanced practice public health nursing.

Each applicant should request a copy of official transcript of all college course work be sent to the Department Graduate Advisor of Nursing in addition to the copies required by the Office of Admissions and Records.

## Admission Requirements

1. Bachelors degree in nursing or currently enrolled in accelerated RN to Masters program. Those nurses with Baccalaureate degrees in health related fields may be conditionally admitted.
2. Current license to practice as a registered nurse in California.
3. Admission to graduate standing at the University.
4. An upper division or graduate course in biostatistics (HSC 403 or Ed. Stat 419) and an ethics course (HSC 451).
5. Public Health Nurse Certificate, or eligibility for certificate in California.
6. An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis.
7. Submission of quantitative and verbal scores from the Graduate Record Examination (GRE).
8. Three letters of recommendation from persons with whom the applicant has worked and who has direct knowledge of the applicant's qualifications.
9. A separate personal statement of applicant's reasons for pursuing this field of study and comments about interests and experiences, which are germane to career objectives.
10. Current professional resume describing the applicant's relevant experience.

## Advancement to Candidacy

A joint committee, consisting of Nursing and Health Science faculty involved in the program, will review files and make determination to advance a candidate to graduate status.

## Student Criteria for Advancement

1. Satisfy the general University requirements for advancement to candidacy in Nursing and Health Science.
A. fulfill the Graduation Writing Assessment Requirement (GWAR)
B. have at least a 3.0 grade point average for all course work attempted as a graduate student
2. Joint approval by the Department of Nursing and Health Science, and the Associate Dean for Academic Programs of the College of Health and Human Services.

## Requirements

1. A minimum of 57 units of approved Nursing and Health Science upper division and graduate level courses including: HSC 500 or MICR 429; HSC 503 or BIOL 565; HSC 508, 528, 535, 570, 581, 624, 625; NRSG 660B, 680A, 680B, 680C; NRSG 680AL, 680BL, 680CL or HSC 626 (in lieu of one 3 unit 680L); NURS 696 or HSC 696; NRSG 695 or HSC 697 or NURS 698
2. An overall GPA of 3.0 or better in all courses
3. Comprehensive written examination or directed project or a thesis
4. Graduate degrees obtained previously will be accepted toward meeting the unit requirements of the concurrent MSN/MPH degree program
5. If a student after entering the concurrent MSN/MPH program returns to a single degree program, all requirements for the single degree program must be met
6. Transfer units will not be accepted toward the concurrent MSN/MPH program.

## Courses (H SC)

## LOWER DIVISION

## 150. Medical Terminology (1)

Development of medical vocabulary emphasizing the building of terms utilizing prefixes, combining forms and suffixes. Includes medical terms for application in the interpretation of medical records.
(Lecture-discussion 1 hour.) Letter grade only (A-F).
200. Orientation to Radiation Therapy (3)

Introduction to the profession of Radiation therapy and an overview of the Option requirements. The role of Radiation therapy in cancer treatment and the role Radiation Therapist in patient care, treatment, simulation, dosimetry and follow-up.
40 hours of clinical fieldwork required. Letter grade only (A-F).

## 210. Contemporary Health Problems (3)

Prerequisite: Completion of the 13 unit GE foundation requirements.
Development of modern health knowledge, attitudes and behavior: includes family life-sex education, drug use and abuse, mental health, medical quackery and health frauds, common diseases such as sexually transmitted diseases, heart disease and cancer.

## UPPER DIVISION

## 301. Orientation to Health Science (3)

Must be taken prior to H SC 401 and 430.
Overview of philosophy of Health Science Department Orientation to degree requirements, career opportunities, and theoretical and practical issues of health education as a profession.
310. Radiation Therapy Patient Care I (2)

Prerequisite: Admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Topics covered include the role of the radiation therapist, communication, self-care, basic patient care, patient assessment, infection control, medical emergencies, basic pharmacology and medication administration.
Letter grade only (A-F).

## 311. Radiation Therapy Patient Care II (2)

Prerequisites: Admission to the Radiation Therapy Option Professional Preparation of consent of instructor, HSC 310.
Topics covered include psychosocial aspects of cancer diagnosis, death and dying, patient education and intervention for treatment related sequelae. Additionally local, state and national cancer resources are covered.
Letter grade only (A-F).

## 315. Seminar in Radiation Therapy I (2)

Prerequisites: Concurrent enrollment in HSC 492A, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Introduction to the clinical arena requiring application of previous didactic material. Focus is on the patient, consult, simulation, treatment, dosimetry and case study review.
Letter grade only (A-F). (Lecture-Discussion, 2 hrs)
316. Seminar in Radiation Therapy II (2)

Prerequisites: Concurrent enrollment in HSC 492B, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Application of previous didactic material. Comprehensive analysis of case studies in the clinical setting with emphasis on treatment rationale and options.
Letter grade only (A-F). (Lecture-discussion 2 hours)
320. Radiologic Techniques and Imaging Modalities (3)

Prerequisites: Admission to the Radiation Therapy Option
Professional Preparation of consent of instructor.
Concepts and processes involved in producing a radiograph will be covered. Additionally, other diagnostic imaging modalities such as CT, MRI, Ultrasound will be covered.
(Lecture-discussion 2 hr ) Letter grade only (A-F).
330. Topographic Anatomy (2)

Prerequisites: BIOL 207, 208 admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Examination of external anatomic landmarks to internal anatomy. Additionally, cross sectional anatomy is covered with interpretation of port films and other diagnostic films.
(Lecture-discussion 2 hr ) Letter grade only (A-F).
340. Clinical Radiation Therapy (3)

Prerequisites: HSC 200, 320, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Rationale of radiation therapy treatments; construction of immobilization devices, contours, beam modifiers and positioning aids. Examination of simulation procedures, contrast media, treatment positioning and monitoring.
(Lec-discussion 2 hrs, Lab 2 hrs) Letter grade only (A-F).

## 341. Clinical Radiation Therapy II (1)

Prerequisites: HSC 340, concurrent enrollment in HSC 445A, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Examination of site specific techniques to treat cancers of the skin, head and neck, lung, esophagus, breast, gastrointestinal, kidney and bladder.
Letter grade only (A-F). (Lecture-discussion, 1 hour)

## 342. Clinical Radiation Therapy III (1)

Prerequisites: HSC 341, concurrent enrollment in HSC 445B, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Examination of site specific techniques to treat cancers of the reproductive systems, CNS, eye, endocrine, bone, soft tissues, blood and lymphatics. Pediatric cancer treatments will be included.
Letter grade only (A-F). (Lecture discussion 1 hour)
400./500. Principles of Epidemiology (3)

Prerequisites: H SC 301 and 403.
Application of epidemiologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents, and geriatric problems.
(Lecture 3 hours)

## *401. Community Health Education (3)

Prerequisite: H SC 301 and H SC 430.
Concepts of community health education with emphasis on community organization; application of these concepts to health education activities of official, voluntary and professional health agencies.

## *402. Applied Concepts of Community Health Education (3)

Prerequisites: H SC 301, 430, 435.
Identification and application of concepts unique to community health education; includes examination of theoretical foundations, marketing and promotion techniques, and application of health education strategies.
*403. Community Health Statistics (3)
Prerequisites: G.E. math and SOC 250 or PSY 100 or equivalent. Representative topics are descriptive statistics, sample designs, central tendency, and variability. Statistical tools for inferential analyses include hypothesis testing and parameter estimation. (Lecture 2 hours, Activity 2 hours)

## 405. Health Education Program Evaluation and Measurement (3) <br> Prerequisite: HSC 403 or equivalent.

Research designs, standardized measurements, data collection, analysis, and reporting are used to develop evaluation skills to assess program outcomes. Program activities promoting behavior change in communities, organizations, groups and individuals are evaluated.
(Discussion 3 hours)

## 411A. Health Science for Elementary Teachers (3)

Prerequisite: Upper-division standing. Corequisite: Current CPR Certification required.
Contemporary teaching of health education in elementary schools; emphasizes coordinated school health, drugs, sexuality, nutrition, child abuse, violence, community and human ecology. Based upon California Health Framework, meets state credential requirements.
Not open for credit to health Science majors or minors.
411B. Health Science for Secondary Teachers (3)
Prerequisite: Upper-division standing. Corequisite: Current CPR Certification required.

Contemporary teaching of health education in secondary schools; emphasizes coordinated school health, integrating health content and instruction into other subjects, drugs, sexuality, nutrition, child abuse, violence, community and human ecology. Based upon California Health Framework, meets state credential requirements. Not open for credit to health Science majors or minors

## 415. Radiation Biology (2)

Prerequisites: BIOL 207, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Biological effects of radiation at the cellular, organ and whole body levels. Radiobiological effectiveness, linear energy transfer, oxygen enhancement ratio, sensitizers and protectors will be covered.
(Lecture-discussion 2 hours). Letter grade only (A-F).
420. International Health (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Analysis of current health problems in the world; examination of contributing social, psychological, physical, legal and cultural factors; international programs for the improvement of world health; structure and functions of world health agencies and organizations.

## 421. Health Behavior (3)

Survey of contemporary research on the health effects of human behavior. Special emphasis is given to current issues of health behavior, decision-making in contemporary society, values clarification and contemporary theories of behavior change (e.g., health belief model).

## 422. Environmental Health (3)

Examination of reciprocal relationship existing between man and his environment, with the emphasis directed toward the health related consequences of man's actions in the environment.

## 423. Consumer Health (3)

Effective selection of health information, products and services; medical quackery and fraudulent health practices; laws and agencies protecting the consumer; health care delivery systems; and influences of corporate control on the consumer movement in contemporary society.

## 424./524. Alternate/Complementary Health (3)

Prerequisites: Upper division standing.
Presents philosophical, historical, clinical and scholarly aspects of complementary/alternative health (CAH) to promote health, prevent disease and treat illness. Emphasis will be placed on the efficacy of CAH in the U.S. A minimum of twelve modalities will be analyzed.
(Lecture/demonstration/discussion 3 hours).

## 425I. Human Sexuality and Sex Education (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Recommended: PSY 100.
Biomedical, sociological, and psychological aspects of human sexuality, the communication of sexual information, the implementation, content and evaluation of family life and sex education in the schools.

## 427. Drugs and Health (3)

Prerequisite: Upper division standing.
Study of psychoactive drugs with primary attention to alcohol, nicotine, caffeine, cannabis, hallucinogens, narcotics and other drugs; examination of trends, philosophical issues and behavioral practices associated with drug use and dependence. Includes physiological psycho-social, legal, historical, philosophical and political aspects; treatment-rehabilitation activities and programs; and drug abuse prevention education.
Not open for credit to students with credit in H SC 327.

## 429. Stress Reduction (3)

Recognition of stress and its causes. Physical and mental symptoms of stress. Influences which reduce or create stress; methods of coping.
*430. School Health Program (3)
Prerequisite: H SC 301.
Intensive analysis of the philosophy, organization and legal aspects of the school health program. Includes school and community coordination for a team approach to health education for the school age individual.

## 435./535. Health Promotion and Risk Reduction (3)

Prerequisites: H SC 421 or consent of instructor.
Health promotion/risk reduction program content, development and implementation for use in corporate, hospital and public settings. Intended primarily for Health Science majors.
(Discussion 3 hours)
*440. Applied Concepts of Health Science (4)
Prerequisite: H SC 430.
Identification and application of the concepts and modes of inquiry unique to the discipline of health science; development of appropriate curriculum based upon an analysis of individual, school and community needs and interests.
(Lecture 3 hours; laboratory 3 hours)

## 445A. Oncologic Pathology I (3)

Prerequisites: BIOL 207, 208, HSC 150, admission to the Radiation Therapy Option Professional Preparation of consent of instructor. Examination of Oncologic pathology with emphasis on malignant neoplasia; specific attention given to cancers of the skin, head and neck, lung, esophagus, breast, gastrointestinal tract, kidney and bladder.
(Lecture-discussion 3 hours) Letter grade only (A-F).

## 445B. Oncologic Pathology II (3)

Prerequisites: HSC 445A, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Continuing study of Oncologic pathology with specific attention given to cancers of the reproductive system, central nervous system, eye, endocrine, major digestive glands, bone, soft tissue, blood, lymphatic system and pediatric solid tumors.
(Lecture-discussion 3 hours) Letter grade only (A-F).
*450. The Health Care Professional in the United States (3)

Identification of the responsibilities of health care professionals, legal aspects of health care delivery; factors influencing the quality of health care; cultural influences; governmental involvement and current issues in health care; and examination of health care in the United States.

## *451. Ethics Professionalism in Health Care (3)

Examination of professionalism and bioethics, and the process of making moral decisions; ethical issues; professional oaths and codes of ethics; health care ethics and the law.

## 455. Quality Management in Radiation Therapy (1)

Prerequisites: HSC 470B, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Study of the principles of quality management with an emphasis on specific quality assurance tests in radiation therapy. Students will be given the opportunity to either perform or observe a demonstration of each quality assurance test.
(Letter grade only (A-F).

## *460. Health Care Program Development (3)

Examination of the process of health care, program development, identification of contemporary health care philosophy, needs, legal aspects, objectives and community involvement as related to program development; process of conducting a needs assessment; factors affecting development; regionalization; grantsmanship.
465. Radiation Therapy in the Health Care Industry (3)

Prerequisites: Admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Examination of radiation therapy in the current health care market. Focus in on various operational and budgetary issues, hospital and governmental accreditation, types of insurance and reimbursements.
Letter grade only (A-F). Lecture-discussion 3 hours)

## 470A. Clinical Radiation Physics I (3)

Prerequisites: PHYS 100A, B, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Nature and description of the structure of matter and energy; interactions of photons and gamma radiation; instrumentation and measurement of ionizing radiation; beam quality and dose; percentage depth dose, tissue air ratios, treatment dose calculations.
(Lecture-discussion 2 hours, Laboratory 2 hours). Letter grade only (A-F).

## 470B. Clinical Radiation Physics II (3)

Prerequisites: HSC 470A, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
A continuation of the study of radiation physics with emphasis on electron beams, brachytherapy, intensity modulated radiotherapy, conformal radiotherapy and other emerging technologies. Radiation safety and protection also included.
(Lecture-discussion 2 hours, Laboratory 2 hours). Letter grade only (A-F).

## 475. Treatment Planning - Dosimetry (2)

Prerequisites: HSC 470A, B, concurrent enrollment in HSC 475L, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Examines the effects of treatment distance, field weighting, beam modifiers, irregular fields, tissue inhomogeneities and tissue compensation on dose. Dose calculations for external photon and electron beams.
(Lecture-discussion 2 hours). Letter grade only (A-F).
475L. Treatment Planning - Dosimetry Laboratory (1)
Prerequisites: Concurrent enrollment in HSC 475, admission to the Radiation Therapy Option Professional Preparation of consent of instructor.
Practical experience with calculation o treatment dose given a variety of clinical situations. Calculations to determine dose to critical structures or methods used to lower or avoid dose. Use of a treatment planning computer for complex field arrangements.
(Laboratory 3 hours) Letter grade only (A-F).
480. Advanced Radiation Therapy (2)

Prerequisites: Must be in final semester of Radiation Therapy Option Professional Preparation.
Synthesis of previous didactic and clinical information; examination of current and future professional issues, technological advances, ethics, professional organizations and continuing education.
(Lecture-discussion 2 hours) Letter grade only (A-F).
*485. Internship in Health Education (3)
Prerequisites: H SC 401 and consent of instructor.
Supervised observation and field experience in community health education as conducted by official, voluntary and professional health organizations.

## 490. Independent Studies in Health Science (1-3)

Prerequisite: Consent of instructor.
Students conduct independent library or laboratory research under the supervision of a faculty member and write a report of the
investigation. May be repeated to a maximum of 6 units.

## 492A. Internship in Health Care (1-7)

Prerequisite: Consent of instructor.
Supervised observation and field experience in community health and medical facilities. Student responsible for successful completion of clinical objectives applicable to area of observation. Letter grade only (A-F).
492B. Internship in Health Care (1-9)
Prerequisites: Consent of instructor.
Supervised observation and field experience in community health and medical facilities. Student responsible for successful completion of clinical objectives applicable to area of observation. Letter grade only (A-F).
*499. Special Studies (1-3)
Group investigation of selected topics.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## GRADUATE LEVEL

## 500./400. Principles of Epidemiology (3)

Prerequisites: H SC 301 and H SC 403.
Application of epidemiologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents, and geriatric problems.
Letter grade only (A-F). (Lecture 3 hours.)

## 503. Advanced Community Health Statistics (3)

Prerequisite: HSC 403 or equivalent.
Analysis of quantitative health related data. Topics include mean and percentage comparisons, multiple regression, logistic regression and survival analysis. Use of computers is required. Letter grade only (A-F). (Discussion, 3 hours)

## 508. Administrative Relationships in Health Education Programs (3)

Prerequisite: Undergraduate major in Health Science or related field.
Introduction to administrative theory; investigation of administrative responsibilities and functions implicit in school health or other health education programs.
Letter grade only (A-F).

## 516. Health Promotion in Organizational Settings (3) Prerequisite: H SC 570.

Exploration of health promotion programs in worksite settings, health services, business and industry. Assessment of the organizational climate for health promotion and principles for maintaining program viability and vitality. Strategies for developing and conducting health promotion programs in these settings. Letter grade only (A-F). (Discussion, 3 hours)

## 524./424. Alternate/Complementary Health (3)

Prerequisites: Upper division standing.
Presents philosophical, historical, clinical and scholarly aspects of complementary/alternative health (CAH) to promote health, prevent disease and treat illness. Emphasis placed on efficacy of CAH in U.S. A minimum of twelve modalities will be analyzed.
Letter grade only (A-F). (Lecture/demonstration/discussion 3 hours).

## 528. Advanced Environmental Health (3)

Prerequisite: H SC 422 or consent of instructor.
Organization and methods for promoting human health by controlling environmental factors.
Letter grade only (A-F).

## 535./435. Health Promotion and Risk Reduction (3)

Prerequisites: H SC 421 or consent of instructor.
Health promotion/risk reduction program content, development and implementation for use in corporate, hospital and public settings. Intended primarily for Health Science majors.
Letter grade only (A-F). (Discussion 3 hours)
570. Theoretical Concepts and Issues in Health Science (3)

Identification and analysis of current trends, philosophies and issues in health science.
Letter grade only (A-F).

## 581. Curriculum Development in Health Education (3)

Prerequisites: H SC 430, 440.
Principles of curriculum development; selection and evaluation of resource materials; theory and practice in measurement in health education.
Letter grade only (A-F).

## 585. Health Education Internship (1-6)

Prerequisite: Consent of the instructor.
Extended applied experience under guidance of faculty and preceptors in an approved health education practice setting. Letter grade only (A-F). (480 hours of field placement or the equivalent experience.)

## 590. Independent Study (1-3)

Independent research conducted under the supervision of a full-time faculty member resulting in a written report of the investigation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

## 624. Seminar in Community Analysis and Program

 Planning (3)Prerequisites: H SC 625 or consent of instructor.
Process and techniques of community analysis and program planning.
Letter grade only (A-F).
625. Advanced Community Health Education (3)

Prerequisites: H SC 401 and 485; or consent of instructor.
Advanced study of educational and related theory applicable to the conduct of health education programs in community and other settings. Methods of promoting change; role as program and staff director and evaluation techniques.
Letter grade only (A-F).

## 626. Integrative Seminar in Public Health (3)

Prerequisites: H SC 570, advancement to candidacy.
Summative critical analysis of current methodologies, research, and practices in public health and health education in particular. Synthesis of coursework, internship, and other relevant experiences in the graduate program.
Letter grade only (A-F).

## 696. Research Methods (3)

Prerequisites: Undergraduate major in Health Science or related field; undergraduate course in statistics.
Introduction to research methodology in the area of Health Science. Letter grade only (A-F).
697. Directed Studies (1-3)

Prerequisite: Advancement to candidacy.
Independent investigation of research problems in health education.
Letter grade only (A-F).
698. Thesis (1-3)

Prerequisites: H SC 696, advancement to candidacy. Planning, preparation and completion of an approved thesis.

## HISTORY

College of Liberal Arts

## Department Chair

Nancy L. Quam-Wickham
Department Office
Faculty Offices 2 (FO2), Room 106
Telephone
(562) 985-4431

Faculty

## Professors

Dorothy Abrahamse, Stephen E. Berk (Emeritus), David A. Bernstein (Emeritus), Paul V. Black (Emeritus), Albie D. Burke, Augustus Cerillo, Jr. (Emeritus), Patricia A. Cleary, Keith E. Collins, Kenneth R. Curtis, Edward A. Gosselin (Emeritus), Albert F. Gunns (Emeritus), David C. Hood, Troy R. Johnson, Arnold P. Kaminsky, Brett Mizelle, Keith I. Polakoff (Emeritus), Gary W. Reichard, Donald R. Schwartz (Emeritus), Sharon L. Sievers, Arnold R. Springer (Emeritus), Jack Stuart (Emeritus), William A. Weber (Emeritus), Nancy L. Quam-Wickham

## Associate Professors

Houri Berberian, James Green, Arlene Lazarowitz, David Shafer

## Assistant Professors

Jeff Blutinger, Jane Dabel, Marie Kelleher, Catherine Komisaruk, Caitlin Murdock, Sarah Schrank, Lise Sedrez, Moshe Sluhovsky, Omar Valerio-Jimenez
Undergraduate Advisors
Linda Alkana, Caitlin Murdock
Sharlene Sayegh-Camadon, Portfolio Advisor
Graduate Advisor
Houri Berberian
Office Managers
Aimee Castillo, Cris Hernandez

Advising in the Department of History is available to all students interested in a major, minor, a teaching credential, or a special major combining History with another discipline. Students are strongly encouraged to see History Department advisors at an early stage in the development of their programs. Undergraduate majors should see History department staff to fill out a work sheet before meeting with the Undergraduate Advisor. Students interested in the M.A. program should contact History department staff for application information. Graduate students should see the Graduate Advisor. Applicants for the Social Science Credential Single Subject Program must see Credential Advisors. All advisors maintain extended hours during the semester and are available at other times by appointment. The Department of History also hosts open advising days in the week prior to each new semester; call the Department for information.

## History

History is a discipline at the core of the liberal arts tradition. It seeks to preserve, extend, and reevaluate our study of the past and to connect it with the present. Students who specialize in History are typically those who plan to teach, practice law, or enter government service;
however, History students also go into business, librarianship, foundation work, management of local history projects, and fundraising. Some history alumni have become successful writers.

Students contemplating graduate work in History on this campus or elsewhere should get advice early in their undergraduate careers from faculty in their fields of interest and should also give serious consideration to developing proficiency in a foreign language during their undergraduate tenure.

The History Department awards scholarships and prizes to outstanding undergraduate and graduate students, among which are:

- The Xiaolan Bao Scholarship
- The Douglas McNeally Award
- The Stuart Bernath Award
- The Ebell-Heimberger Scholarship
- The Jack Chinski Award
- The Irv Ahlquist Scholarship
- The Elizabeth Neilsen Award
- The Hardeman Graduate Student Award

For further information about these awards, given annually, students should inquire at the Department office no later than the beginning of the spring semester. Undergraduate and graduate students are eligible for the Department's facilitator program for which they may earn units in the major; see Department staff for applications. Graduate assistantships and readerships are also frequently available to qualified graduate and undergraduate students. The Department also recruits outstanding students for Phi Alpha Theta, the national honor society for History students.

The Department of History offers graduate study leading to the Master of Arts degree. The candidate is responsible for observation of the general requirements stated in this catalog as well as specific departmental requirements listed in the M.A. brochure, available on request from the Department office.

## General Education Requirement in United States History

To fulfill State of California requirements, students must take three (3) units of U.S. history. This requirement can be met by HIST 172 or 173 . Students who have taken U.S. history at another institution should check with the History Department before enrolling.

## Bachelor of Arts in History (code HISTBA01) (120 units)

## Requirements

Majors must take 47 units of history: 9 lower-division and 38 upper-division.

1. Core: 14 units. All majors must take HIST 301, 302, 499, and one history course that fulfills the gender, race, and ethnicity requirement (from a list of approved courses available from the Undergraduate Advisor). HIST 301 MUST be taken in the first semester of course work in the major. 301 is a prerequisite for 302 , and both courses are prerequisites for 499.
2. Fields of emphasis: 18 units. All majors have the option of specializing in two or three fields. Option one: two fields of nine units each. Option two: three fields of six units each. The fields are:
A. Africa and the Middle East
B. Ancient and Medieval Europe
C. Asia
D. Latin America
E. Modern Europe (Including Britain)
F. United States
G. World
3. Breadth: 6 units. Majors must take six units in a field (or fields) of history outside of their fields of emphasis.
4. All majors must develop a portfolio (beginning with HIST 301) reflecting their work in the History major. The portfolio will be evaluated as one of the requirements in the senior seminar, HIST 499. Prerequisites for HIST 499 are completion of HIST 301, 302, and 18 units of upper-division work in the major.
NOTE: History majors are strongly encouraged to include the study of foreign language and literature in their programs. Students working for a single-subject credential in secondary education must consult with the College's secondary education advisor as to the applicable credential major requirements.

## Honors in History

Students with a major in history may be admitted to the History Department honors program (option of the University Honor's Program) provided they have:

1. Completed at least 30 semester units of college- or university-level courses, including at least two history courses;
2. A minimum cumulative GPA of 3.3 , and a 3.5 in history courses;
3. Submitted to the department honors committee chairperson two letters of recommendation from faculty members;
4. Received admission approval from the departmental honors committee.
Students who have the minimum GPA requirements established by the University Honors Program (3.0 overall and 3.3 in the major, but who do not meet History departmental GPA requirements above may petition the department honors committee for conditional admission to the Department Honors Program).

In order to graduate with Honors in history a student must:

1. Complete all regular requirements for the history major;
2. Complete 3 units in HIST 501;
3. Complete 3 units in HIST 498H: Honors Research;
4. Complete 3 units of HIST 499H: Honors Thesis;
5. Complete 6 units of additional course work chosen in consultation with the Department Honors Advisor; such courses normally will require two analytical papers or a research paper on a honors level of performance;
6. Complete UHP 499 Synthesis, as partial fulfillment of the University's requirement of 6 upper-division units;
7. Have at the time of graduation a cumulative GPA of at least 3.3 and a GPA of at least 3.5 in history.

Students admitted to the program must maintain a file in the University Honors Program which will include copies of proposals for 498 H and 499 H .

## Oral History Program

This program, housed in the Department of History, is designed to teach and train history students in the use of materials that focus on largely unwritten sources. History majors, and social science credential students with a history concentration, are urged to take the one-unit workshop. Students in these workshops learn how to design an oral history project, and to conduct interviews. Workshops are especially helpful for students interested in local history, the history of the family, and communities whose written records have not been included in traditional historical materials.

## Minor in History (code HISTUM01)

A minimum of 21 units which must include:
Lower Division: A minimum of six units, which must include a six-unit sequence from the following: HIST 211 and 212, 131 and 132.

Upper Division: A minimum of 12 units, which must include at least six units in each of two areas as defined for the major.

## Minor in Jewish Studies (code HISTUM02)

This minor consists of a minimum of 19 units. It encourages undergraduate students to acquire academic breadth and depth to comprehend major issues, themes, and concepts of a culture and heritage that had a distinct impact on world civilization. The inter-disciplinary minor consists of courses in a variety of disciplines, including literature, history, religion, geography, Hebrew language, and politics. Expands understanding of the broader dynamics of the Jewish experience through different eras and geographic settings, both in Israel and the Diaspora.

## Requirements

1. Required core courses: HEBW 101A, HIST 369, R/ST 314;
2. Three units from the following elective courses: CWL 342, HIST 431, R/ST 311;
3. Six units from the following elective courses: GEOG 309I; HIST 304, 432, 389; POSC 367; R/ST 315.

## Minor in Latin American Studies (code HISTUM03)

This minor offers students majoring in any subject an opportunity to supplement their education focusing on interdisciplinary study of Latin America. The flexible program of study is ideal for students interested either in intellectual enrichment or professional development in their major. Courses used to meet this minor requirement may be counted also, where applicable, toward General Education requirements, and the major or minor requirements of the cooperating departments.

## Requirements

1. Rrequirements for the Latin American Studies minor.
A. Successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to student's area of concentration or equivalent fluency as determined by program advisor.
B. Consultation with program advisor, including formal declaration of minor, and application for graduation.
2. Completion of 21 units distributed as follows:
A. Core (required of all students) 3 units. Choose either LAS/ HIST/SOC 161 or SPAN 445.
B. Electives: 18 additional units from the following courses, selected from at least two disciplines:

ANTH 323, 324, 345, 440*, 490*, 499*; AH 457/557, 458/558, 459/559 CHLS 352, 380, 395, 400, 420, 490*, 499*; CWL 440, 499*; ECON 490*, 499*; FEA 302C; GEOG 320; HIST362, 364, 366, 461, 462, 463, 466A, 466B, 466C, 490*, 495*, 498*; LAS 161/HIST 161/SOC 161; POSC 358, 359, 481, 497*, 499*, SOC 341, 490*, 499; SPAN 341, 441, 445, 490*, 492, 495*, 550
*Special Topics and Independent Study courses in the area of Latin American Studies (including Short Term Study Abroad) must be approved by the advisor.

## Minor in Middle Eastern Studies (code HISTUM05)

This minor encourages undergraduate students to acquire a broad and interconnected understanding of the dynamics of Middle Eastern societies, cultures, and histories by taking courses in a variety of disciplines including History, Arabic language, Political Science, Geography, Art History, International Business, and Religious Studies. Expands understanding of major issues, themes, and concepts associated with a complex and diverse region as Middle East.

## Requirements

A minimum of 18 units.

## Core Required Courses

Minimum twelve (12) units: At least three (3) units must be in History and four (4) units must be in Arabic.

HIST 431/531, 432/532; R/ST 331; POSC 367; ARAB 101A, 101B.

## Elective Requirements

Must take a minimum of six (6) additional units, selected with an advisor, from the following courses without repeating courses from the core:

ARAB 101A, 101B; ART 465/565; CWL 104, 402/502; GEOG 309I; HIST 393, 394, 428, 431/531, 432/532; POSC 367; R/ST 331I, 490†.

Three (3) of these units may be taken from the following courses, which have a global and comparative perspective, without repeating courses from core: CBA 300, W/ST 401I, CDFS 410, R/ST 102, HIST $495 \dagger$.
$\dagger$ Only topics courses relevant to the minor will be accepted.

## Master of Arts in History (code HISTMA01)

## Prerequisites

1. A bachelor's degree in history with an overall 3.0 GPA or higher or
2. A bachelor's degree with 24 units of upper-division courses in history. These courses must be comparable to those required of a major in history at this University. Deficiencies determined by graduate advisor after consultation with the student and after study of transcript records.

## Requirements

The Master of Arts in History is a program of 30 minimum units as defined below.

Core Courses required of all students: HIST 501, 590

## Options for Field of Study

The fields are Africa and the Middle East, Ancient/Medieval Europe, Asia, Latin America, Modern Europe, United States, World.

## Option One

For Students pursuing one field of concentration. 18 Units of graduate level coursework (500/600 numbered courses) in the student's field of concentration.

18 units must include: HIST 510 in the field, HIST510 outside the field; Research Seminar if offered (for example, HIST 611 [ancient/medieval], 631 [Europe], 673 [US], and 682 [East Asia]).

## Option Two

For students pursuing two fields of concentration. 9 units of graduate level coursework (500/600 numbered courses) in each field. 9 units must include: two 510s, one in each field; Research Seminar in the field of concentration (for example, HIST 611 [ancient/medieval], 631 [Europe], 673 [US], and 682 [East Asia]).

## Electives applicable to all students:

Six units of electives, upper-division or graduate (300/400/500/600 numbered courses) coursework, in history or supporting disciplines related to Field(s) of Concentration. Two of these courses may be upper-division courses marked with an asterisk only if they have not been taken before the completion of a Bachelor's degree.

## All Students

The courses for Special Preparation (595), Directed Study (695), Directed Research (697), and Thesis (698) may be applied to the 18 unit total only with the permission of the graduate advisor. A student may propose a field other than those cited above with the consent of the Graduate advisor and her/his graduate committee.

A reading knowledge of a foreign language may be required, depending upon the candidate's program of study as recommended by her/his graduate committee.

## Advancement to Candidacy

Students should see Graduate Advisor to file Advancement to Candidacy after at least 6 units but no more than 15 units of graduate coursework completed.

Must have taken a 501 as well as have passed the Graduation Writing Assessment Requirement (GWAR) or appropriate designated course. The Writing Proficiency Exam (WPE) is administered several times every academic year by the University Testing Office. Must be attempted in the first semester of graduate work and passed by the time of advancement. Exam may be waived if earned a 4.0 or higher on Writing portion of GRE.

Advancement must take place at least two semesters prior to taking Comprehensive Exams or completing the Thesis. Comprehensive Examination Approval Form or Thesis Committee Agreement Form must be filed with department at time of Advancement. At this point, student must commit to taking exams or writing a thesis. Advancement to Candidacy is a formal contract listing courses student has taken, is taking, and will take. Changes to contract may be made in consultation with Graduate Advisor.

## Culminating Project

Students must take either Comprehensive Exams in one field (two periods) or in two fields, or write a Thesis on one field or incorporating two fields to culminate their Master's Degree in History.

Comprehensive exams require filing a Comprehensive Examination Approval Form with the department.

A Thesis requires filing a Thesis Committee Agreement Form and enrolling in History 698 with the thesis advisor for four (4) units.

## Courses (HIST)

## LOWER DIVISION

## 101. Facts, Evidence and Explanation (3) <br> Corequisite: ENGL 100.

Explanation of facts, evidence and explanation to explore and develop habits of critical thought using a historical and global perspective. Topics include argument, inductive and deductive reasoning, the relationship of language to logic and theoretical perspectives.
Not open for credit to students with credit in HIST 201.

## 131. Early Western Civilization (3)

## Corequisite: ENGL 100.

History of western civilization from its origins through the 16th century. Stresses society, culture, and political institutions of ancient Near East, classical world, the medieval West, and renaissance and reformation Europe.
(CAN HIST 2)

## 132. Modern Western Civilization (3)

Corequisite: ENGL 100.
European society from 16th century to present. Stresses events and phenomena which reshaped political, economic and social structures of the West and their impact throughout the world. Emphasis on intellectual, social and psychological transformation of modern life.
(CAN HIST 4)

## 141. Jewish Civilization (3)

Survey traces diversity and complexity of Jewish traditions from ancient to modern times across different regions, exploring intercultural and assimilationist contacts in Diaspora. Students critically engage with Jewish source texts from various eras and regions.

## 161. Introduction to Latin American Studies (3)

Prerequisite: Completion or concurrent enrollment in ENGL 100. Interdisciplinary overview of history, society, and culture in Latin America - Mexico, Central American, the Caribbean, and South America. Examines political, economic, social, and cultural conditions for conflict, change, and continuity over last five hundred years.
Letter grade only (A-F). Same course as SOC 161 and LAS 161.

## 172. Early United States History (3)

Prerequisite/Corequisite: Completion of one G.E. Foundation course and ENGL 100 or equivalent.
Survey of political, social, economic, and cultural development of the United States from discovery through reconstruction. Focus on the colonial era, establishment of the new nation, sectional problems, national growth, disunion, and reconstruction. Material may be covered chronologically or topically.
Not open for credit to students with credit in HIST 162A. (CAN HIST 8)

## 173. Recent United States History (3)

Prerequisite/Corequisite: Completion of one G.E. Foundation course and ENGL 100 or equivalent.
Survey of political social, economic, intellectual, and cultural development of United States from Reconstruction to present. Focuses on different social groups; movements of people; labor; women's and minority issues; politics, protest, and war; society and culture.

## (CAN HIST 10)

## 211. World History: Origins to 1500 (3)

Prerequisite: Completion of GE Foundation requirements.
Survey of pre-modern World History emphasizes interactions between civilizations. Topics include role of universal religions; political, social, and gender structures; economic and demographic
development; diffusion of culture and technology via migration, commerce, and imperial expansion.
Not open for credit to students with credit in HIST 111.

## 212. World Since 1500 (3)

Prerequisite: Completion of GE Foundation requirements.
Survey of modern World History emphasizing global interactions such as economic globalization; demographic, environmental and gender transitions; intellectual, religious and cultural transformations; imperialism and resistance to empire, birth of nations; and historical origins of contemporary world.
Not open for credit to students with credit in HIST 112. (CAN HIST 16)
250. Early World Historical Geography (4)

Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students.
Examines emergence and changing nature of urban life, cultural and technological diffusions, and cross-cultural contact and exchange between cultures and civilizations over time
Same as GEOG 250.

## 290. Special Topics in History (3)

Prerequisite: Completion of GE Foundation requirements.
Topics of current interest in History. Applicability to major requirements will be specified in description of individual topics.
Topics announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

## UPPER DIVISION AREAS

NOTE: General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.
Courses with asterisk (*) available for undergraduate and graduate credit.

## GENERAL

## *301. Methodology of History (4)

Prerequisites: Required of all History majors in their first semester of work in the major.
Introduction to historiography and methodological issues, skills and competencies exercises, research methods, research presentations, and peer review. Creation of student portfolio used in remaining upperdivision courses in major and assessed in HIST 499
Letter grade only (A-F). May be repeated to a maximum of 8 units.

## *302. Theory and History (4)

Prequisite: HIST 301. Required of all History majors. Must be taken in the semester immediately following successful completion of HIST 301. Introduction to history of historical profession, conceptual categories of historical inquiry, the ways theory shapes historical research and writing. Focuses on case studies, significant historical works, major schools of historical interpretation and recent historigraphic trends.
Letter grade only (A-F).

## 401. History for Secondary Social Science Teachers (3)

Prerequisites: completed a majority of all coursework in the Social Science Subject Matter Program. Capstone course for students in Social Science Subject Matter Program.
Examination of World and American history to promote global perspective and deeper knowledge of historical content within California History-Social Science Framework and Standards, historiography and historical thinking, methodology as related to teaching and learning history. Emphasis on imbedding interdisciplinary approaches from social sciences in teaching and learning of history.
A grade of " $B$ " or better is required for advancement to student teaching. Letter grade only (A-F).

## 490. Special Topics in History (1-3)

Topics of current interest in history selected for intensive development.
May be repeated to a maximum of 6 units with different topics in different semesters, but no more than 3 units may be used to satisfy the requirements for the major. Topics will be announced in the Schedule of Classes.

## F. Women and War

Same topic as SPAN 493A and W/ST 490K.

## *494. Practicum in History (1-3)

Prerequisites: Consent of instructor and department chair.
Field work in History, supplemented by reading and tutorials under direction of a faculty member. Internships, small group discussion/ teaching, and other assignments directed by supervising faculty member.
May be repeated to a maximum of 6 units, but no more than 3 units may be applied to the major in History.
*495. Colloquium (3)
Prerequisites: HIST 301 and nine additional units of upper division History.
Seminar level course exploring a specific historical field or issue chosen by instructor; students expected to analyze and interpret primary and secondary sources in a paper presented to the class.
Part of core requirements for students declaring a major before summer 2001; students declaring a major after spring 2001 will be required to take HIST 499 as a core requirement, not 495.
*498. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.
May be repeated to a maximum 6 units.

## 498H. Honors Research (3)

Research for and writing of a senior thesis under the direction of a departmental advisor.

## 499. Senior Seminar (4)

Prerequisites: Completion of HIST 301, HIST 302, and 18 units of upper-division course work in History; at least two courses (six units) of which must be in the 499 seminar's area of concentration.
Students must demonstrate mastery of historical processes and literature through: 1) portfolio submission; 2) research paper, and 3) oral presentations.
Not open for credit to students who have not met the prerequisites listed above. Letter grade only (A-F).

## 499H. Honors Thesis (3)

Prerequisite: HIST 498H.
Research, writing, and presentation of a senior honors thesis under the direction of departmental faculty advisor.

## INTERDISCIPLINARY COURSES

## 303. Rebels and Renegades (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Exploration of music, literature and art used by 20th century social and political activists in an effort to understand the goals, tactics and accomplishments such activists use to make the world more just, inclusive and peaceful.
Not available for credit in the minor.
3081. Law and Civilization (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Exploration of law as an intellectual effort to define, direct, and administer human experience. Examination of theories of knowledge, language, meaning, mental processes, social organization, personal
responsibility and freedom underlying legal analysis and decisionmaking in courts as well as in administrative/bureaucratic settings.

## Not available for credit in the minor.

## 309I. Men and Masculinity (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Exploration of male roles from an interdisciplinary perspective focusing on men as workers, friends, lovers, and fathers. Consideration of the choices available to men under the impact of tradition, feminism, and a changing job market. Gender-oriented social and political movements.
Letter grade only (A-F).

## 310I. The Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major events and ideas in society and culture of ancient Greece with an emphasis on literature, the arts, and the historical forces at work. Topics include foundations of Greek culture, Minoan civilization, Homer and the Trojan War, mythology and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponesian War, Hellenistic culture, and contributions of the Greeks to the modern world.
Same course as CLSC 311I.

## 312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major events and ideas in society and culture of ancient Rome emphasis on literature, the arts, and historical forces at work. Topics include genesis and growth of the Roman world, transition from Republic to Empire, imperial maturity, decay and decline, and contributions of the Romans to the modern world.
Same course as CLSC 312I.

## 4001. History of Western Scientific Thought (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Introduction to history of science for scientists and non-scientists. Evolution of scientists' views of means and ends of their activities; ways science is affected by and affects contemporary cultures.

## 404. Social History of Musical Life (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Social history of musical life, music publics, institutions, professions, and taste in Europe and the U.S.
Not available for credit in the major.
407I. Japan and the United States in the 20th Century (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of relationships between Japan and the United States, emphasizing cultural, economic, and political conflict and cooperation.

## 414I. Medieval World (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing.
Examination of major themes in medieval society and culture, emphasis on literature, the arts, and historical forces that combined to produce medieval culture as a whole.
Same course as CWL 414I.

## 474I. The Urbanization of Modern America (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of urban America from the colonial period to the present. Emphasis on the process of urbanization, urban problems, and politics.

## AFRICA AND THE MIDDLE EAST

## *391. The Making of Modern Africa, 1800-1939 (3)

Surveys political, economic, social and intellectual history of African continent during tdecades of revolutionary change in early and mid-nineteenth century, period of European conquest and African resistance to partition in late nineteenth century, and period of full colonization in period between world wars. African actions and perspectives prioritized.

## *392. Contemporary Africa, 1940-Present (3)

Surveys history of African continent during transition from colonialism to national independence and post-colonialism. The current political, economic, social and intellectual trends of Africa will be considered in historical context. African actions and perspectives will be prioritized.

## 393. Jews of the Modern Middle East (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Explores history, culture, and transformations of important Jewish communities in Middle East. Examines effects of modernization and colonialism on these disparate communities, including phenomenon of Jewish colonization of other Jews and impact of exclusivist nationalisms on Jewish identities.
*394. Middle Eastern Women (3)
Prerequisities: Upper division status.
Explores a wide range of roles played by Middle Eastern women throughout history, seek to understand their multi-faceted thoughts and activities, and discuss the most important issues related to women and gender in Middle Eastern history.
Same as W/ST 394.

## 428. History of the Palestinian-Israeli Conflict (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Chronologically examines evolution of Palestinian-Israeli conflict from late nineteenth century to present from historical perspective. Explores how social, economic, and political realities gave birth to competing Zionist and Palestinian national identities evolved over time, highlighting diverse perspectives within each national community, including those informed by gender and class.
431./531. The Middle East (Southwest Asia), 600-1700 (3)

Explores political, cultural, social, and economic developments in the region: emergence of Islam; creation and development of Islamic Empire; rise of dynastic successor states and "gunpowder" empires; European encroachment; and, integration into the emerging world system.

## 432./532. The Middle East (Southwest Asia), 1700-Present

 (3)Explores political, cultural, social, and economic developments in the region: Modernization and reform; problems and impact of modernity and imperialism; state building; nationalism; and, Islamic revivalism.

## *491. Modern and Contemporary Africa (3)

Conquest of Africa by European states, contrasting colonial systems as they evolved, anti-colonial movements and progress towards selfgovernment or independence, problems of economic and political development, and race tensions in areas of white settlement.

## ANCIENT AND MEDIEVAL

## 310I. The Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major events and ideas in society and culture of ancient Greece with an emphasis on literature, the arts, and the
historical forces at work. Topics include foundations of Greek culture, Minoan civilization, Homer and the Trojan War, mythology and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponesian War, Hellenistic culture, and contributions of the Greeks to the modern world.
Same course as CLSC 311I.

## 312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major events and ideas in the society and culture of ancient Rome with an emphasis on literature, the arts, and the historical forces at work. Topics include genesis and growth of the Roman world, transition from Republic to Empire, imperial maturity, decay and decline, and the contributions of the Romans to the modern world.
Same course as CLSC 312I.

## *313. Ancient Greece (3)

Prerequisite: Completion of GE Foundation requirements.
History of the Greeks and the Greek world from the earliest times to the Roman conquest.

## *314. Roman History (3)

Prerequisite: Completion of GE Foundation requirements. History of Rome and the Roman world from the Eighth Century B.C. to the Fifth Century A.D.

## *316. Early Middle Ages (3)

History of Western Civilization from the fall of the Roman Empire in the West to the Crusades. Germanization of the West, evolution of Christian institutions, Slavic expansion, Byzantinization of the Eastern Empire, Islamic civilization, Carolingian age, feudal and manorial institutions.

## *317. High Middle Ages (3)

History of Western Civilization from the Crusades to the end of the Middle Ages. Revival of trade, growth of towns and of capitalism, origins of modern political institutions, and medieval learning and art.

## *318. Byzantine Empire (3)

History of the Byzantine Empire from the 4th century AD to Constantinople's fall in 1453; the cultural heritage of the Roman Empire in the eastern Mediterranean; religious controversies and development of eastern Christianity; relations with Islam and medieval Europe.

## 319. Women in the Ancient and Medieval West (3)

Prerequisite: ENGL 100.
Examines roles and experiences of women in Western Europe from prehistory to the sixteenth century. Themes may include: construction of gender roles, relation between symbols and reality, interaction of private/public life, access to power/opportunity; the possibility of a "women's culture."
Same course as W/ST 312.

## 341A. Foundations of Russia (3)

Evolution of the state structure, diverse cultural patterns, and social structures associated with ancient Kiev Russia: rise of Moscow, origins of autocracy and serfdom; westernization and modernization as problems during the imperial period to 1801. Particular emphasis on social history.

## *351. Medieval England (3)

Analysis of English political institutions, society, religion and economy in the Anglo-Saxon, Norman, Plantaganet, and late medieval eras.

## 414I. Medieval World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major themes in medieval society and culture, with an emphasis on literature, the arts, and the historical forces that combined to produce medieval culture as a whole.
Not available for credit in the major. Same course as CWL 414I.

## ASIAN

## 382A. Imperial China (3)

Prerequisite: Completion of the GE foundation.
Introduction to classical civilization stressing evolution of imperial institutions, Chinese world order, and China's traditional cultural heritage.
Same course as CHIN 382A

## 382B. Modern China (3)

Prerequisite: Completion of the GE foundation.
Chinese society from $17^{\text {th }}$ century to 1949. Impact of imperialism, reform and revolutionary movements, background of Chinese communism.
Not open for credit to students with credit in HIST 482B. Same course as CHIN 382B.

## 383A. Japan to 1850 (3)

Prerequisite: Completion of GE Foundation requirements.
Japan from prehistory to the nineteenth century; emphasis on social and cultural developments, the evolution of political institutions, and the development of early modern society.

## 383B. Modern Japan (3)

Prerequisite: Completion of GE Foundation requirements.
Japan from 1850 to 1945; collapse of the Tokugawa bakufu and rise of the Meiji state; industrialization, social change, and protest; "Taisho democracy" and the Pacific War.
*384. Contemporary Japan (3)
Japan since 1945; impact of Hiroshima and Nagasaki; American occupation of Japan; Japan's "economic miracle," social change and social criticism in literature and film; Japan's role in the contemporary world; conflict with the U.S.

## *385. History of India (3)

Survey of the South Asian subcontinent from its historic roots, through the founding/consolidation of the Mughal Empire, to the beginnings of Western imperialism and establishment of the British Raj, ending with nationalism and the events in contemporary South Asia.
*386. History of Modern Southeast Asia: Colonial Era to the Vietnam War (3)
Survey of political and cultural history of modern Southeast Asia from 1800: Expansion of European influence, growth of nationalism and process of decolonization, and the post-WWII configuration of the area. Both mainland and insular Southeast Asia will be surveyed.

## 388. Contemporary China (3)

China from 1949 to the present. The political, economic and cultural factors that shaped its continuity and change and the impact of its transformation on Greater China, including Hong Kong and Taiwan.

## 405./505. Classical Japan (3)

Japan from prehistory to the fifteenth century. Connections to other Asian cultures, the influence of Buddhism, and development of Japanese esthetics exemplified in literature and art; dynamics of centralized vs. regional power; civil vs. military authority.

## *406A. Asian Women: East and Northeast Asia (3)

Prerequisite: Upper division status.
Exploration of the histories of women in China, Japan and Korea from prehistory to the present. Major themes include women's contributions to social, cultural and political change, and the complex relationship between feminism and nationalism in the modern period.
Same courses as A/ST 406A and W/ST 406A.
*406B. Asian Women: South and Southeast Asia (3)
Emphasis on modern period; exploration of complexities of women's roles in multicultural, multilingual societies in South and Southeast Asia, including gender as a continuing site of contention in nationalist discourse.
Same course as A/ST 406B and W/ST 406B. Letter grade only (A-F).

407I. Japan and the United States in the 20th Century (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of relationships between Japan and the United States, emphasizing cultural, economic, and political conflict and cooperation.
409./509. Early Modern Japan (3)

Japan from the mid-16th century to the end of the Tokugawa period in 1868; reunification, the growth of urban centers and transportation, economic growth; blossoming of political theory, and of popular culture.

## *410. Chinese Emigration/Migration in Modern Period (3)

Emphasis on Chinese in SE Asia, the Americas, and Western Europe; exploration of the implications of human migration for the developing world, and the fluidity and contested nature of "nation states."

## *487. Film and Chinese History (3)

Exploration of the complex relationship between history and film in modern Chinese history.
*488. The Chinese Revolution (3)
Prerequisite: HIST 382B or consent of instructor.
Theory and practice of revolutionary socialism in the People's Republic of China, historical and ideological background of the Chinese revolution, Mao and Maoism, politics, culture and society in China.
Same course as CHIN 488.

## LATIN AMERICAN

## 362. Colonial Latin America (3)

Prerequisite: Completion of GE Foundation requirements. Iberian preparation for overseas expansion, discovery and conquest in America, evolution of colonial institutions, dynamic 18th century developments, wars of independence.
364. The Latin American Nations (3)

Prerequisite: Completion of GE Foundation requirements. Political, economic, social and intellectual evolution of Latin America in the 19th and 20th Centuries.
*366. Latin American History and Literature (3)
Latin American history through the novel and film; will integrate literature and the cinema with traditional historical materials in order to provide the student with a deeper understanding of the development of Hispanic America.

## *461. History of Precolumbian Mexico (3)

History of Meso-America from prehistoric times to the Spanish conquest, emphasizing the study of the societies and the religious and intellectual life of people of ancient middle America.
*462. Mexico (3)
Spanish conquest of Indian Mexico; settlement and exploration; colonial life and institutions; the achievement of independence from Spain; reform, foreign intervention, dictatorship in the 19th century; the Revolution of 1910 and after; contemporary Mexico.

## *463. The Caribbean and Central America (3)

History of the Caribbean Islands and Central America from European colonization to the present, with emphasis on Cuba and Central America. Economic, political and cultural development and relations with the United States.

## *466. Topics in Latin American History (3)

Selected topics in Latin American history. The topic will vary from one semester to the next.

May be repeated to a maximum of 9 units with different topics.

## MODERN EUROPEAN

## *304. The Holocaust (3)

Examines the destruction of European Jews by Nazi Germany during the Second World War. Students will trace the roots of antisemitism in European history, the origins of Hitler's anti-Jewish assault, and the process from ghettoization to extermination.

## 332. The Age of the Renaissance (3)

Examines remarkable transformation of Europe during the Renaissance period (1350-1550), including themes of humanism and artistic and literary developments; humanism and politics; religion in the "Age of Reason." Particular emphasis on relationship between power and culture in Italian civilization.

## *333. Reformation Europe (3)

Examination and analysis of the "long 16th century," from the beginning of the Italian Wars (1494) to the Peace of Westphalia (1648). Emphasis on economic, institutional, intellectual and religious crises, and on their resolutions in the post-Reformation period.

## *334. Early Modern France, 1589-1789 (3)

Spanning French history from the advent of the Bourbon monarchy until its demise with the French Revolution, this course will expose students to the political, social, economic, and cultural developments that attended the domestic and international expansion of the French state.

## *335. The Shaping of Modern Europe (3)

European political, social, economic and intellectual life from 1500 to 1789. Reviews Renaissance and Reformation, then traces the crisis of absolutism, the consolidation of state authority, rise of scientific and enlightened ideas, and the origins of the French Revolution.

## *336. The French Revolution and Napoleon (3)

End of the Old Regime and the French Revolution. Decline of the feudal monarchy, failure of enlightened despotism, the rise of revolutionary thought, French Revolution, and Napoleonic imperialism.

## 337. Europe in the Nineteenth Century (3)

Commencing with Napoléon's empire and concluding with the fin-de-siècle, this course will examine industrialization and its repercussions; popular protest and revolution; nationalism; class consciousness; feminism; imperialism; and emergent ideologies (conservatism, liberalism, socialism; communism).
338. Modern European Women's History (3) Investigates how European history has impacted on women, and how women and women's issues have shaped historical events. Issues covered are: industrialization, the family, wars and revolutions, health and sexuality, and the "woman question" in politics, culture and society.
Same course as W/ST 384.

## 339. Europe, 1890-1945 (3)

Explores the political, social, economic, international, and cultural crises prior to the First World War; the rise of totalitarianism in the Soviet Union and Nazi Germany, the Spanish Civil War, the Second World War, and the Holocaust.

## *340. Europe Since 1945 (3)

Examines the political, social, economic, and cultural history of Europe since the end of World War II. Themes include post-war recovery, the Cold War, decolonization, the fall of communism, the transformation of Central Europe, and the European Union.

## 341B. Modern Russia (3)

Interaction with the West from 1801; era of great reforms and revolutionary movements; downfall of imperial Russia; establishment of the Soviet regime; chief political, social, economic and cultural developments in the Soviet era; role of the Soviet Union in world affairs.

## 343. Modern Eastern Europe (3)

Prerequisite: GE Foundation or consent of instructor.
Examines modern Eastern Europe from the emergence of nation states, to nationalism, world wars, fascism, Communism, conformity, dissent, and revolution. We will explore the role of Eastern Europe as a place and as an idea in modern Europe.

346I. The European Cinema of Communism, Fascism, and Resistance (3)
Prerequisite: Completion of the GE Foundation, one or more Exploration courses, and upper division standing.
Focuses on European cinema of the twentieth century as a manifestation of totalitarian and ideological movements preceding, in-between, and following the two world wars. The ensuing and ongoing resistance movements will also be examined.
Same course as RGR 346I and FEA 346.

## 347. Tradition and Crisis: Jews in Eastern Europe (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Explores the history of Eastern European Jewry, from its medieval origins to its destruction in the twentieth century. In particular, the course examines the impact of absolutist rule and the attempts to create new frameworks for Jewish identity.
*353. Tudor and Stuart England (3)
Social, cultural, religious, political, and dynastic history of England from 1485 to 1714. Renaissance and Reformation; Crown and Parliament; civil war and revolution; the pre-industrial economy; relations with Scotland, Ireland, Europe, and America.

## *356. Georgian and Victorian Britain (3)

Social, cultural, religious, political, and constitutional history of Britain from 1714 to 1901. Changes in agriculture, commerce, industry, and population; Parliamentary democracy; Irish problems; relations with America, India, Europe, and the world.

## *357. Recent Britain (3)

Social, cultural, economic, and political history of 20th century Britain. Governments and people; labor, party politics, and the welfare state; two world wars; problems with Ireland and Europe; the end of Empire; race relations; mass media and popular culture; contemporary developments.

## 4001. History of Western Scientific Thought (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Introduction to the history of science for both scientists and nonscientists. Evolution of the scientists' views of the means and ends of their own activities; the ways in which science is affected by and affects contemporary cultures.

## *437. History of Germany 1871 to Present (3)

History of Germany from unification: the First World War, the Weimar Republic, the National Socialist Reich, and the post-war recovery.

## *483. Women in Eighteenth-Century England and America (3)

Prerequisites: ENGL 100 and upper division status.
Representations and realities of women's lives, 1688-1800, using critical methodology of history and literature; analysis of literary and historical texts to explore law and economics; religion; education and culture; marriage, sex, and health; politics and revolution.

## ORAL HISTORY PROGRAM

## 402. Oral History Methods (1)

Through a series of workshops and through field experience, skills in oral history will be developed which will enable students to use oral history either for their own personal use in family history or for class projects.
Credit/No Credit grading only. Same course as C/LA 485.
4980. Directed Studies in Oral History (1-6)

Prerequisite: Consent of instructor.
Directed study on a research topic using the methodology of oral history.
May be repeated to a maximum of 6 units. Same course as C/LA 498.

## UNITED STATES

## 300. The United States Past and Present (3)

Upper-division survey, may not be taken for credit in the United States field. For upper-division transfer students in lieu of HIST 172 and 173.

## *369. American Jewish History (3)

Chronological and thematic approach to American Jewish history. Covers Sephardic, German, Eastern European, and recent Jewish immigration. Emphasis on experiences immigrants brought with them. Critical examination of assimilation, transformation of traditions, women, anti-Semitism, development of denominations, mobility, leadership of Diaspora.
Letter grade only (A-F).
370. Chicano History (3)

Chicanos in the settlement and development of the Southwest and in contemporary U.S. society; Chicano experience as a U.S. minority group; emerging civil rights movement of La Raza. Letter grade only (A-F). Same course as CHLS 300.

## 371. Religion in American History (3)

Surveys role of religion in the development of the United States, to the present; themes of Judeo-Christian heritage, proliferation of denominations, and emergence of new religions; relationship of religion to society and politics, including revivalism, ecumenicalism, and social action movements.

## *372. United States: Colonial Period (3)

Discovery and settlement of the new world; European institutions in a new environment; development of colonial government, economy and social institutions; European dynastic rivalry and colonial America.

## *373. United States: Age of Revolution (3)

Clash between British attempts to control and tax the colonies and colonial distaste for both; growth of an independent spirit; the American Revolution; problems of the new nation; the constitution.

## *375. The United States Emerges as a Nation (3)

An analysis of the political, economic, social, and intellectual forces from the adoption of the constitution through the 1840s.
*376. United States: Civil War and Reconstruction (3)
Sectional rivalry, manifest destiny, mid-century divisive forces, Civil War and reconstruction.

## 377. The United States at War (3)

Address questions regarding how and why the United States goes to war. Do we go to war to protect ourselves, our image as a world power, for economic reasons or as the result of an insult to our "national image?
*378. United States History: 1877-1920 (3)
Development of the U.S. as an urban, industrial, multicultural society; progressive reform movements at the city, state, and national level; rise of U.S. as a world power; WWI.
*379. United States: Twenties, Depression, and World War II (3)
The conflict-ridden 1920s; the Depression years, and the beginnings of welfare democracy; the United States in World War II.
*380. United States Since 1945 (3)
The United States in the nuclear age: the development of the Cold War and its domestic ramifications, the "post-industrial" economy, the civil rights revolution, the rise of political dissent, the Watergate affair, the Reagan revolution, and after.

## 381. Asian American Women (3)

Reconstructs and examines Asian American women's history and contemporary experiences. Assesses the complexities of intersecting social categories of oppression and Asian American women's active pursuit of equality and dignity.
Same course as ASAM 381 and W/ST 381.
387. The Vietnam War in U.S. History (3)

Prerequisite: G.E. Foundation.
Examines the history of American involvement in Vietnam, the experience of Americans (and to some extent, Vietnamese) who fought the Second Indochina War (1954-1975), and the impact of the war on American Society.

## *467. Long Beach History (3)

Survey of the history of Long Beach, California, 1890 to the present. Emphasis on local and regional politics, economic development, international trade, and the complicated roles of ethnic and racial diversity in a city with both an urban, and suburban, history.
*469. Ethnic Groups in Urban America: An Historical Examination (3)
Examination of the origin, migration, settlement and the assimilation of various ethnic groups in American cities since the late 19th century. Emphasis will be on the economic, social, and political struggles encountered by different groups adjusting to urban life.

## *471. History of the Westward Movement (3)

Examination of the impact of American expansion on the West: Euro-American exploration and migration, ethnic conflict and conquest, gender and family roles on the frontier, environmental changes in the West, development of economic institutions, and urbanization of the region.

## *472. History of the South (3)

Explores development of the South, including examination of regional culture, traditions, and social crisis in the Antebellum period; conflict and social change; economic transformations; role of women in the region; and the interaction of racial groups in the Modern South.

## *473. California History (3)

Survey of California from the 1500s to the present. Emphasis on migration, cultural diversity, and significant social, political, and economic developments.

## 474I. The Urbanization of Modern America (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of urban America from the colonial period to the present. Emphasis on the process of urbanization, urban problems, and politics.

## 477A./577A. American Cultural History (3)

Development of American way of life treated in terms of values, behavior and institution, themes of individualism, community, ethnic diversity and social reform.

## 477B./577B. American Cultural History (3)

Development of American way of life treated in terms of values behavior and institutions, themes of individualism, community, ethnic diversity and social reform.

## *478. Foreign Relations of the U.S. (3)

Incorporates a global perspective and considers the influence of such issues as domestic politics, bureaucratic rivalry and decisionmaking, economics, ideology, race, and the role of special interest groups in the making of foreign policy.
Same course as I/ST 478.
*479. U.S. Constitution: Origins and Early Development (3)

European sources of constitutional thought, colonial background, impact of the American Revolution, the framing period and the rise of a judicial approach to constitutional interpretation. Emphasis throughout: the evolution of constitutionalism as a basic principle in American thought and institutions.
*480. Law and Fundamental Rights in American History (3)

Selected variable topics on civil liberties issues addressing the historical development of constitutional guarantees in the areas of freedom of expression, privacy, church and state, due process, and equal protection.
*481. The Environmental History of Early America:15001860 (3)
Prerequisites: ENGL 100 and upper division status.
Explores environmental history, with a focus on how Native Americans, Europeans, Africans (and their descendants) defined relationships with the natural world and manipulated it according to economic needs and cultural values.

## *482. Recent American Environmental History (3)

An examination of the impact of industrialization and urban growth on the American environment, the emergence of ecological consciousness and green politics, and the creation of the idea of Nature in American culture in the U.S. since the 1860s.
485A. History of Women in the U.S. Early Period (3)
Survey of roles and activities of American women from colonial period to 1850, with focus on slavery, immigration, family, economy, law, and politics.
Only 3 units of 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as W/ST 485A.

## 485B. History of Women in the U.S. Since 1850 (3)

Examines the changing roles and status of women's economic, political, and social roles. It also explores the suffrage movement, the role played by women in WW II and the changes brought forth during the "second wave" of feminism.
Only 3 units of 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as W/ST 485B.
*486. History of Afro-Americans in the United States Examines the roots and culture of Afro-Americans from African origins to the present. We will explore the transformation from slavery to freedom; segregation and racial conflict; emigration patterns, societal interactions, and the experiences of women.
*489. Topics in Legal History of the United States (3)
Case studies in American law from colonial times to the present: English common law heritage, puritan and frontier influences, the legal profession, judicial traditions, formative stages in criminal law, torts and contracts, and modern trends in legal thought.
May be repeated to a maximum of 6 units with different topics.

## WORLD HISTORY

## 345. Comparative Genocide (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Explores the modern phenomenon of mass killings of targeted populations in order to achieve a particular demographic, political, or cultural goal. Students will examine a series of case studies - including the Armenian Genocide, the Holocaust, Cambodia, and Rwanda - in order to understand not only how and why genocides occur, but also to look at the possibilities of preventative action.

## 349. The History of Food (3)

Prerequisite: HIST 211 or 131 or consent of undergraduate/graduate advisor.
Religious and secular role of food, its connection to issues of identity, and significance of securing reliable sources of sustenance as central to political, economic, and military agendas all underline the usefulness of studying food and our complicated relationships with it throughout history.

## *396. Contemporary World History (3)

Prerequisite: HIST 211 or 131 or consent of undergraduate/graduate advisor.
World historical approach to the study of the twentieth century. Themes include: the changing global economy and environment; the advance and retreat of empires; colonialism and post-colonialism; contending ideologies; the intensification of globalization at the end of the century.

## 435. History of the Francophone World (3)

Perequisites: HIST 132, 212, or approval of advisor.
Commencing with a study of the history of French language, explores methods by which France expanded its global presence. Themes to be covered include French colonialism, resistance to French overseas expansion and issues relative to race and identity.

## 441./541. Mediterranean World (3)

Prerequisite: HIST 211 or 131 or consent of undergraduate/graduate advisor
Focuses on pre-modern Mediterranean world up to geographical shift of political power and wealth to the Atlantic world with an emphasis on the exchange and interaction of peoples and ideas. Letter grade only (A-F).

## 443./543. The Early Modern Atlantic World (3)

Prerequisite: HIST 211 or 132 or consent of undergraduate/graduate advisor
Examines early modern Atlantic from a world historical perspective with an emphasis on cultural encounter and exchange,
environmental interaction, and comparative colonial development from early Iberian maritime expansion through the Atlantic revolutions and wars of independence.
Letter grade only (A-F).
492./592. Proseminar in World History (3)

Prerequisite: Consent of the instructor.
Discussion and analysis of recently published historical works and materials from a world history perspective.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 501. Theories and Methodologies of History (3)

Prerequisites: graduate standing in History or consent of instructor.
Development of history as a discipline, major schools of historical interpretation, and recent developments in analysis and theory. Emphasis will be placed on the interrelationships of history with other disciplines in the social sciences and humanities.
Letter grade only (A-F).

## 505./405. Classical Japan (3)

Japan from prehistory to the fifteenth century. Connections to other Asian cultures, the influence of Buddhism, and development of Japanese esthetics exemplified in literature and art; dynamics of centralized vs. regional power; civil vs. military authority.

## 509./409. Early Modern Japan (3)

Japan from the mid-16th century to the end of the Tokugawa period in 1868; reunification, the growth of urban centers and transportation, economic growth; blossoming of political theory, and of popular culture.

## 510. The Literature of History (3)

Reading and discussion of major works and intensive study of bibliography and bibliographical aids. Includes a comparative history component.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.
531./431. The Middle East (Southwest Asia), 600-1700 (3)

Explores political, cultural, social, and economic developments in the region: emergence of Islam; creation and development of Islamic Empire; rise of dynastic successor states and "gunpowder" empires; European encroachment; and, integration into the emerging world system.
532./432. The Middle East (Southwest Asia), 1700-Present (3)

Explores political, cultural, social, and economic developments in the region: Modernization and reform; problems and impact of modernity and imperialism; state building; nationalism; and, Islamic revivalism.

## 541. Mediterranean World (3)

Prerequisite: HIST 211 or 131 or consent of undergraduate/graduate advisor

Focus on pre-modern Mediterranean world up to geographical shift of political power and wealth to the Atlantic world with an emphasis on the exchange and interaction of peoples and ideas.
Letter grade only (A-F).

## 543. The Early Modern Atlantic World (3)

Prerequisite: HIST 211 or 132 or consent of undergraduate/graduate advisor
Examines early modern Atlantic from a world historical perspective with an emphasis on cultural encounter and exchange, environmenta interaction, and comparative colonial development from early Iberian maritime expansion through the Atlantic revolutions and wars of independence.
Letter grade only (A-F).

## 577A./477A. American Cultural History (3)

Development of American way of life treated in terms of values, behavior and institutions, themes of individualism, community, ethnic diversity and social reform.
Letter grade only (A-F).

## 577B./477B. American Cultural History (3)

Development of American way of life treated in terms of values, behavior and institution, themes of individualism, community, ethnic diversity and social reform.
Letter grade only (A-F).

## 590. Topics in Comparative History (3)

Prerequisite: Consent of instructor.
Selected themes in history involving cross-cultural and comparative approaches.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 592./492. Proseminar in World History (3)

Prerequisite: Consent of the instructor.
Discussion and analysis of recently published historical works and materials from a world history perspective.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 595. Special Preparation (3)

Prerequisite: Graduate standing; consent of Graduate Advisor.
Special preparation for the M.A. examinations under faculty direction.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
611. Seminars in Ancient and Medieval History (3)

Prerequisites: Six units of upper division ancient or medieval history or consent of instructor.
Selected topics in ancient or medieval history.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
631. Seminars in European History (including Britain and Russia) (3)
Prerequisite: Consent of instructor.
Directed reading and research in the political, economic, social and cultural history of Europe.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 673. Seminars in United States History (3)

Prerequisite: Six units of upper division United States history.
Selected topics in domestic or international affairs from colonial times to the present.
May be repeated to a maximum of 6 units. Letter grade only $(A-F)$.
682. Seminars in East Asian History (3)

Prerequisites: Six units of upper division
Asian history or consent of instructor. Selected topics in East Asian history.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 695. Directed Readings (1-3)

Prerequisites: Consent of instructor.
Readings on an individual basis.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor.
Research on an individual basis.
Letter grade only (A-F).

## 698. Thesis (1-4)

Planning, preparation and completion of non-curricular work in history for the master's degree.

# HOSPITALITY FOODSERVICE AND HOTEL MANAGEMENT <br> College of Health and Human Services <br> Department of Family and Consumer Sciences 

## Department Chair

M. Sue Stanley

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(562) 985-4484 / 985-4414

## Website

www.csulb.edu/depts/fcs

## Faculty

## Professors

Gail C. Frank, Avery E. Goldstein, Hazel O. Jackson (Emeritus), Mary Jacob (Emeritus), James E. Koval, Nilufer Medora, Wendy Reiboldt, Ramses B. Toma

## Associate Professors

Jeanne Bader (Emeritus), Lee Blecher, Jacqueline Lee, Suzanne Marshall, Lydia Sondhi, M. Sue Stanley, Richard V. Tuveson

## Assistant Professors

Margaret Lichty, He Yan, Jung-Mao (Ronnie) Yeh
Graduate Advisors
Mary Jacob, Wendy Reiboldt
Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technician
Bonnie Rice

## Bachelor of Science in Dietetics and Food Administration

The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in three option areas of study:

- Nutrition and Dietetics
- Food Science
- Hospitality Foodservice and Hotel Management

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

Requirements for the major include a minimum of 126 units for Hospitality Foodservice and Hotel Management. The courses which will provide these units are determined by the option the student chooses. In addition to general education requirements (51 units), a minimum of 40 units in Family and Consumer Sciences is required, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is accepted by the University.

## Hospitality Foodservice and Hotel Management

Hospitality Foodservice and Hotel Management furnishes students with the necessary background and expertise to excel as managers and leaders in the restaurant, foodservice, hotel, and lodging industries. The program of study provides a broad-based foundation in both academic and professional courses and includes hands-on practical experience. The program prepares students for entry into a dynamic multi-ethnic and multi-cultural domestic and international job market. Career options include: restaurant manager, hotel manager, catering director, foodservice manager in a college, university, healthcare, or corporate setting, manager in a motel or bed and breakfast facility, school foodservice director, manager in senior dining programs, stadiums or amusement parks, or as a food purchaser or broker.

## Option in Hospitality Foodservice and Hotel Management (code FCS_BS03) (126 units)

ACCT 201; BIOL 205 or 207; One class chosen from CHEM 100, 111A; COMM 110; ECON 300 or 100 and 101; One course chosen from EDP 419, IS 310, MATH 180, HSC 403, or SOC 250; One class chosen from HRM 360, 361, or PSY 381; One class chosen from IS 233, IS 300, or FCSE 387; MKTG 300; PHIL 160; PSY 100 or SOC 100; One class chosen from REC 141, 225, or 340I; CAFF 321; FCSE 299, 486, 499; NUTR 132, 234; HFHM 274 or NUTR 336; HFHM 173, 176, 270, 276, 372, 375, 376, 378, 379 (3 units), $473,474,477,492 \mathrm{~J}$. Additionally, a minimum of 7 units of pre-approved electives for professional enhancement is selected in consultation with a faculty advisor. Recommended electives include: ACCT 310; GEOG 352; GERN 400I; IS 301; REC 427, 462, 468; CAFF 223 or 429; FSCI 332, 464; CDFS 312I or 319I; NUTR 331A or 433 or 439, 461; HFHM 379, 492J; FCSE 497; or others as approved by advisor. HFHM 492J requires 800 hours of approved work experience as a prerequisite for this option. Field study hours in HFHM 379 can be used toward meeting the 800 hours.

## Minor in Hospitality Foodservice and Hotel Management (code FCS_UM05)

Twenty-two units including HFHM 173, 270, three units of 379 or $492 \mathrm{~J} ; 15$ additional units selected from HFHM 176 or $235,274,275$ or $276,372,375,376,378,473,474$, and 477 as approved by a Hospitality Foodservice and Hotel Management faculty advisor.

The Minor in Hospitality Foodservice and Hotel Management is available to any non-Hospitality Foodservice and Hotel Management major.

## Foodservice Systems Administration Certificate (code FCS_CT02)

The Certificate program in Foodservice Systems Administration is designed to provide those students pursuing the bachelor's degree in Dietetics and Food Administration, Business Administration, and other related fields with additional background in foodservice management, increasing their expertise at the management entry level. The program is appropriate for a variety of applications, including foodservice in restaurants, catering, hospitals, public schools, industrial foodservice, hotels and motels, airlines, and in governmental regulatory agencies.

The Certificate may be earned in conjunction with the bachelor's degree or awarded subsequent to obtaining the degree at CSULB. Courses taken to meet the requirements of the Certificate may be the same ones used to satisfy major, minor or General Education requirements, or the degree requirements of the participating departments.

## Requirements

1. A bachelor's degree in dietetics/food administration, business administration, or other related fields;
2. Satisfactory completion of the following courses:
A. Nutrition: NUTR 132;
B. Food Preparation and Service: HFHM 235, 275;
C. Foodservice Management: HFHM 375, 474, 477, 492J;
D. Business Administration: ACCT 201, HRM 361, 362, 440, MGMT 300, MKTG 300;
E. Related Fields: CHEM 302, ECON 300
3. Maintain a GPA of 2.5 in the courses of the program and overall;
4. Consultation with and certification of successful completion by the Director of the Program in the Department of Family and Consumer Sciences.
Courses taken under the Credit/No Credit grading option may not be applied to this Certificate program.

## Hospitality Foodservice and Hotel Management Courses (HFHM)

## LOWER DIVISION

## 173. Applied Foodservice Sanitation (1)

Principles of sanitation and safety; the causes and controls of food borne illnesses, sanitary practices with purchasing, receiving, storing and preparing food, principles HACCP, sanitary maintenance of kitchen, dining room and equipment, personal hygiene, and safety of the food handler.
Letter grade only (A-F). (Lecture-discussion 1 hour.)
176. Fundamentals of Food Preparation in Hospitality Foodservice and Hotel Management (3)
(Recommended corequisite: CHEM 100, or equivalent.
Covers basic scientific principles related to various foods and food preparation methods from the perspective of the restaurant and foodservice industry. Fundamental skills and techniques used for handling and preparing foods to maintain quality and safety are covered.
Letter grade only (A-F). Course fee may be required. (Lecturediscussion 2 hours, laboratory 3 hours.)

## 235. Principles of Food Preparation (3)

Prerequisites: CHEM 100 or 111A or 202.
Application of scientific principles in the preparation of selected food products emphasis on physical and chemical properties of food; methods and techniques of food preparation; factors that contribute to quality of prepared foods.
Course fee may be required. (Lecture-discussion 2 hours, Laboratory 3 hours.) (CAN FCS 8)

## 270. Introduction to Hospitality Foodservice and Hotel

 Management (3)Introduction to hospitality foodservice and hotel industry and historical overview of field. Careers in hospitality foodservice and hotel management defined. Explore relationship of careers to community and foodservice and hotel/lodging industry. Overview of organization and current forces shaping foodservice and hotel operations.
(Lecture-discussion 3 hours.)
274. Global Issues in Hotel and Restaurant Management (3) Prerequisites: ENGL 100.
International hospitality foodservice and hotel management. Issues and problems in the hotel and restaurant industry from a global perspective. Dynamics of human interaction in a multi-ethnic and multicultural global job market.
(Discussion 3 hours)
275. Food Production Systems I (3)

Prerequisites: NUTR 132 and HFHM 235.
Factors which influence individual, family and quantity foodservice. Menu planning and food selection, preparation and service in relation to management of time, energy and money. Foodservice practices for regular meals and special occasions.
Course fee may be required. (Lecture-discussion 2 hours, laboratory 3 hours.)

## 276. Food Production and Service in Hospitality

Foodservice and Hotel Management (3)
Prerequisite: HFHM 176.
Covers fundamentals of planning, organizing, preparing, and serving of meals as applicable to hospitality foodservice and hotel industry. Operations relative to provision of quality food and beverage services included.
Letter grade only (A-F). Course fee may be required. (Lecturediscussion 2 hours, laboratory 3 hours.)

## UPPER DIVISION

## 301. College Dining Services and Bookstore Administration

 (3)Prerequisite: Consent of instructor.
Academic and experiential learning in the management of college dining services and bookstore. Internship for student employees of Forty-Niner Shops, Inc.; 150 hours of work experience, 18 hours of classroom instruction.

## 372. Hotel and Lodging Management (3)

Prerequisite: HFHM 270
Organization and management of hotel and lodging facilities. Covers functions of various operational departments and how they interrelate. Importance of assuring quality guest service emphasized.
Fieldtrips may be required. (Lecture - discussion 3 hours.)

## 375. Food Production Systems II (3) F,S

Prerequisites: HFHM 173 and 275.
Quantity food operations are utilized to provide production and operational experiences -- menu planning, costing, standardizing recipes, serving, merchandising, sanitation and safety. Commercial and non-commercial settings are used, such as, hospitals, restaurants, hotels, school districts, universities, plus others.
Letter grade only (A-F). (Lecture - discussion 2 hours, Laboratory 3 hours.)

## 376. Customer Service Management in the Hospitality

 Foodservice and Hotel Industry (3)Prerequisites: HFHM 270.
Components of customer service management and guest relations in the foodservice and lodging industries are examined. Importance of quality customer service and its relationship to the success of operations in the industry will be covered.
Letter grade only (A-F). Fieldtrips and off-campus activities required. (Lecture-activity 3 hours.)

## 378. Legal Issues in Hospitality Foodservice and Hotel

 Management (3)Prerequisite: Upper division standing or consent of instructor.
The laws of foodservice and lodging are examined as they have evolved historically and as they exist today. Legal components of foodservice and lodging management will be covered.
(Lecture discussion 3 hours.)

## 379. Field Studies in Hospitality Foodservice and Hotel Management (1-3)

Prerequisites: Upper division standing or consent of instructor.
A structured experiential learning course designed to expand professional experiences and to enhance the development of competencies required for successful performance in hospitality foodservice and hotel management.
May be repeated to a maximum of 6 units. (Seminar 1-3 hours.)

## 473. Beverage Management (3)

Prerequisites: HFHM 275 or 276 or consent of instructor, senior standing.
Overview of the beverage industry. Identification, use, and service of wines and other alcoholic and non-alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management.
Field trips required. (Discussion 3 hours.)
474. Cost Control in Hospitality Foodservice and Hotel Management (3)
Prerequisites: HFHM 375 or consent of instructor.
Financial management of food, labor, supplies, and other operational costs; procedures for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; inventory and security management; computer applications; and analysis of financial reports in hospitality foodservice and hotel industry.
Course fee may be required. (Lecture - discussion 3 hours.)
477. Foodservice Administration (3)

Prerequisites: HFHM 375 or consent of instructor, senior standing.
Principles of organization and administration in commercial and non-commercial foodservice operations are explored. Includes food purchasing, receiving, storage, inventory control, marketing, organizational management, human resource management, productivity, financial management, and quality management as applied to the foodservice industry.
Fieldtrips required. (Discussion 3 hours.)

## 492J. Internship in Hospitality Foodservice and Hotel Management (3)

Prerequisites: Student must be a major or minor in Hospitality Foodservice and Hotel Management; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Hospitality Foodservice and Hotel Management; and HFHM 275 or 276 or 372 , and 800 hours of approved work experience. Each prerequisite course must be completed with a grade of "C" or better. Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours.)

## HUMAN DEVELOPMENT <br> College of Liberal Arts

Chair<br>Vacant<br>Department Office<br>Psychology (PSY) 205<br>Telephone<br>(562) 985-4344<br>FAX<br>(562) 985-4237<br>Website<br>http:/www.csulb.edu/colleges/cla/human-dev/<br>Faculty<br>Professor<br>Pamela Roberts<br>Associate Professor<br>Shelley J. Eriksen, Beth Manke, Katherine Van Giffen<br>Assistant Professor<br>Stephanie V. Brown, Jeffrey P. Davis<br>Administrative Support Coordinator<br>Julie Ortiz<br>Undergraduate Advisor<br>Shelley J. Eriksen

The field of Human Development studies lifespan development within societal and cultural contexts. Accordingly, Human Development is interdisciplinary, examining development primarily from the perspectives of its component disciplines: Anthropology, Biology, Psychology and Sociology.

The Human Development Department offers a B.A. in Human Development and supervises the Human/Child Development concentrations in the Liberal Studies Program. The B.A. program is structured to provide students with: a broad knowledge of lifespan human development, specific expertise in processes and contexts that affect development, methods to evaluate research and theory within human development, and practice in the real-world application of knowledge gained in the program. Within these guidelines, the B.A. is flexible-students can choose courses that best fit their needs and goals.

Students choose from a wide variety of courses for their Foundation Area requirements. Foundation Area courses cover the components of Human Developmentthe biological, the psychological, and the social and cultural. Students interested in gerontology, for example, may choose to take courses like the Biology of Aging, Introduction to Gerontology and Culture and Aging as their Foundation Area courses, while students interested in child development generally choose different courses for those requirements. Careful selection of Foundation courses can allow students to complete a minor or certificate program (for example, the Gerontology Certificate or Child Development Minor), while completing their major.

In addition to their academic training, Human Development students are taught to apply their knowledge through a semester Practicum. For the Practicum, students typically volunteer in settings pertaining to their career goals. Because the career goals of our students vary, individual students usually are in different practicum sites, including: elementary schools, human resource management offices, senior centers, physical therapy units and various social service agencies.

The faculty of Human Development are active researchers, who regularly include interested students in their research programs. Students who are considering graduate school have the opportunity to work as research assistants on a variety of projects and can help present the findings of those projects at professional conferences. Research experience of this type enhances the likelihood that students will be accepted into the graduate program of their choice.

Human Development graduates pursue a variety of careers. At the B.A. level, many take positions in the social services and business. A substantial number of students enroll in Teaching Credential Programs, while others have gone to graduate school in: Applied Anthropology, Counseling, Criminal Justice, Developmental Psychology, Gerontology, Occupational Therapy, Physical Therapy, School Psychology, Social Work and other fields.

Human Development has an active student club, the Human Development Student Association (HDSA). The HDSA is open to all students enrolled in Human Development courses and has regularly scheduled meetings. Activities sponsored by the HDSA are diverse and include community service projects, sponsoring speakers and films, hosting student-faculty parties, and alumni events. HDSA activities are posted outside the Department Office.

More information on the Human Development Department can be obtained at the Department Office (PSY 205) and the department website. Students who wish to major in Human Development should seek early advising from the Undergraduate Advisor.

## Bachelor of Arts in Human Development (code HDEVBA01) (120 units)

## Requirements

Lower Division: ANTH 120; PSY 100, SOC 100.
Core Courses (24 units):

1. HDEV 250, 307I, 320, 357I, 360, 402 or 403, 470;
2. Twelve units from the following list, including at least one course from each foundation area.
Biological: ANTH 318, 319; BIOL 309I, 301; H SC 420, 421, 425I; W/ST 440;
Psychological: ED P 302, 305; CDFS 311, 3121, 314, 411, 412; GERN 400I, 485; HDEV 300I; PSY 331, 332, 333, 336, 351, 356, 368, 370, 438, 463;
Sociocultural: ANTH 351, 413, 419, 421, 454, 475; ASAM 340, 381; B/ST 410; CHLS 340, 350, 415; CDFS 413; GERN 400I; HDEV 300I, 340; LING 329, 379; SOC 320, 325, 335I, 345, 346, 423, 464; W/ST 401I, 420.
Students must earn a grade of at least " $C$ " in all upper division major courses.

## Minor in Human Development (code HDEVUM01)

The minor in Human Development may be combined with any major at CSULB except Human Development and Liberal Studies, Track II - Human Development Concentration. The minor in Human Development offers students an opportunity to supplement their education with an interdisciplinary study of lifespan development within societal and cultural contexts.

## Requirements

A minimum of 7 courses, chosen in consultation with the Human Development Department Advisor, which must include:

1. HDEV 180 or ANTH 120 or PSY 100 or SOC 100
2. HDEV 250, 307I, 320, 357I, 360
3. One additional Human Development course chosen from HDEV 300I, 340, 402, 403, 470.
All students in this minor must take at least 6 courses in Human Development. All students who complete another course as part of their major that is equivalent to a Human Development course (such as a statistics course equivalent to HDEV 250) must substitute another HDEV course for that one.

## Courses (HDEV)

## LOWER DIVISION

## 180. Lifespan Human Development (3)

Prerequisite/Corequisite: ENGL 100 or equivalent.
Introduction to the cognitive, social emotional and physical development of humans within their ecological niches. Differing worldviews (anthropology, sociology, psychology, and biology) will be used to compare and contrast developmental milestones and issues from conception to death.

## 250. Elementary Statistics in Social and Behavioral

 Sciences (4)Prerequisites: Knowledge of mathematical procedure usually covered in elementary high school algebra, eligibility for GE math. Not open for credit to students with credit in ANTH 202, MATH 180, PSY 110, SOC 250 or C/LA 250.
Introduction to descriptive and inferential statistics and their applications in social and behavioral science research; performance of statistical exercises by interactive computer. Emphasis upon knowledge of which statistical tests to use and how to interpret their results.
(Lec 3 hrs, lab 2 hrs.) Same course as C/LA 250.

## UPPER DIVISION

## 300I. Death and Dying (3)

Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100. Not open for credit to students with credit in HDEV 4001.
Exploration of social, cultural and individual aspects of death experience examined from historical, biological, legal, religious and ethical perspectives. Deathwork, the dying experience, survivorship, ritual and grief examined in light of life-span, cultural and gender diversity.
3071. Approaches to Childhood Through Adolescence (3)

Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100.
Biological, psychological, and sociocultural aspects in the growth of the individual from conception through early adolescence will be considered. Relevant topics and theoretical issues will be treated in an interdisciplinary manner.
Not open for credit to students with credit in NRSG 307.
320. Research Methods in Human Development (4)

Prerequisites: ANTH 120 or PSY 100 or SOC 100 or HDEV 180 or HDEV 250, completion of GE life science requirement.
Research methods in human development. Includes methods and models from anthropology, biology, psychology and sociology as applied to research.
(Lec 3 hrs, lab 2 hrs.) Letter grade only (A-F).
340. Families and Work: Life Course Processes (3) Prerequisites: ANTH 120 or PSY 100 or SOC 100 or HDEV 180.
Examination of the historical transformations over time in Western societies, but especially in the U.S., in the nature of work and how these changes have helped to reshape family forms, relationships and processes.

## 3571. Approaches to Adulthood Through Aging (3)

Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100. Not open for credit to students with credit in NRSG 357 and PSY 365. Biological, psychological and sociocultural aspects in the development of the individual from late adolescence or youth until death will be considered. Relevant topics and theoretical issues will be treated in an interdisciplinary manner.

## 360. Cultural Foundations for Human Development (3)

Prerequisites: HDEV 3071, 3571. Prerequisite or Corequisite: HDEV 320.

Examination of the human life cycle from a global and crosscultural comparative perspective. Consideration of how the phases of human development (and the transitions between them) are conceptualized and dealt with in a variety of sociocultural settings worldwide.
Not open for credit to students with credit in HDEV 401.
364. Interpersonal Skills in Human Development (3)

Prerequisites: HDEV 307I and 357 I.
Designed to develop interpersonal skills identified as necessary to have effective human relations. It includes a presentation of theory and research applicable to processes in interpersonal functioning and human relations. Didactic and experiential learning approaches.
Not open for credit to students with credit in HDEV 434B or ED P 434B.

## 402. Development of Thought: Structure, Process and

 Cultural Influences Across the Life Span (3)Prerequisites: HDEV 320 and 360 .
Examination of theories and current research on the development of thought and problem solving across the lifespan and crossculturally using a multidisciplinary approach. Specific topics include cognition, problem solving, intelligence, language and thought, understanding numbers, literacy and educational implications.

## 403. The Acquisition of Culture: Socialization in Cross-

 cultural Perspective (3)Prerequisites: HDEV 360, or an equivalent upper-level cultural anthropology course (e.g. ANTH 414, 415, 419, 420, 421) and consent of instructor.
Examination of socialization as both a universal and culturally specific phenomenon. Topics include cross-cultural variations in teaching and learning; socialization of children and adult novices; socialization as key aspect of social and cultural reproduction and source of innovation and change.

## 470. Seminar/Practicum (4)

Prerequisites: HDEV 250, 3071, 320, 3571, 360; and consent of the instructor.
Provides for a sequence of observations and supervised participation with individuals in a variety of community agencies and/or educational settings. Practicum is supplemented by topical seminar discussions for two hours each week.
(Seminar 2 hrs, practicum 6 hrs.)
490. Special Topics in Human Development (3)

Prerequisites: HDEV 3071, consent of instructor.
Topics of current interest in human development selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics for a given semester will be announced in the Schedule of Classes.

## 499. Independent Study (1-3)

Prerequisite: Consent of instructor and Program Director.
Student will conduct independent laboratory, field, or library research and write a report of the research.
May be repeated to a maximum of 6 units.

## INFORMATION SYSTEMS

College of Business Administration

Department Chair<br>Robert Chi<br>Department Office<br>College of Business Administration (CBA) 426<br>Telephone<br>(562) 985-4993 (O) 985-5543 (F)<br>Faculty<br>Professors<br>Robert T. Chi, H. Michael Chung, R. Michael Godfrey, Mohammed B. Khan, Melody Y. Kiang, C. Sophie Lee, Khosrow Moshirvaziri, Dee Bruce Sun, C.J. Walter, Yu-Ming Wang, Richard D. Wollmer<br>\section*{Associate Professors}<br>Omer S. Benli, James Kwok, Thang Nguyen<br>Assistant Professors<br>Abraham Asher, Deborah Gaut<br>Administrative Support Coordinator<br>Tammi Baltin

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

In order to graduate with a business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

1. Lower Division: ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115; and PHIL 170.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score (70\%) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300; ACCT 310; ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310, FIN 300, MGMT 300, MKTG 300, IS 301).
C. Completion of Management Information Systems Option requirements.
4. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in Management Information Systems (code IS__BS01) (120 units)

Prepares students for careers in Management Information Systems in business, education, and government. Emphasis on systems management, information process and analysis, and new uses of information technology. Fundamentals of business information systems, computer hardware, system and application software, telecommunications, electronic business, and decision support systems are included providing a solid foundation in this rapidly changing field. Curriculum is based on both the DPMA and ACM models.

Choose one of the following four tracks:

## Applications Development Track

1. IS 340, 355, 380, 385, 485
2. Three units selected from: IS $320,464,470,480$.

Business Telecommunications Track

1. IS $340,355,380$, IS 455,456 ;
2. Three units selected from: IS 457 or 464.

## Electronic Commerce Track

1. IS 340, 355, 380, 445, 484;
2. Three units selected from IS 456, 480, 483, MKTG 437.

Decisions Technologies Track
IS 320, 340, 355, 380, 464, 470.

## Minor in Management Information Systems (code IS__UM01)

## Requirements

1. IS 300
2. 15 units selected from IS $320,340,343,355,380,385$, $445,446,455,456,464,470,480,483,484$, and 485.

## Courses (I S)

## LOWER DIVISION

## 233. Introduction to Computer Systems and

 Applications (3)An introduction to the use of the Internet and e-mail, Windows, word processing, spreadsheet, and database applications; basic computer literacy.
Credit/No Credit grading only.

## UPPER DIVISION

## 300. Management Information Systems (3)

Information systems concepts and components, contemporary organizational applications, development and management of information systems, and future trends. Computer-based team projects requiring integration and application of conceptual and skills-oriented information systems knowledge in business environment.
Letter grade only (A-F).

## 301. Business Communications (3)

Analysis of principles of collecting, organizing, analyzing, and presenting business information. Written and oral communications involving problem solving in the business management process. Letter grade only (A-F).

## 308. Knowledge Management (3)

Prerequisite: Completion of GE Foundation requirements.
A broad introduction to the concepts, methods and practices of knowledge management. Using information systems and management concepts to create workplace environments that encourage learning, innovation and positive change. Hands-on project requiring teamwork and community service.
Letter grade only (A-F).

## 310. Business Statistics (3)

Prerequisite: MATH 114.
Application of statistics to business problems. Data collection and organization, probability theory, measures of central tendency and dispersion, hypothesis testing and estimation, simple regression, and correlation. Use of statistical software.
Letter grade only (A-F)

## 320. Quantitative Analysis for Business Decisions (3) Prerequisite: MATH 114.

Application of quantitative analysis and computer software for solving business problems. Linear programming, integer programming, PERT and CPM, inventory control, queuing models, quality control, number basis, transportation and assignment models, and simulation. Use of computer software.
Letter grade only (A-F).
340. Business Application Programming (3)

Prerequisites: I S 300 . Visual programming systems.
Object-oriented programming (OOP). Labels, buttons and text boxes, menus, dialog boxes and multiple forms, arrays, and drag-and-drop functions. Concepts ranging from simple to advanced.
Letter grade only (A-F).

## 343. Business Programming (3)

Prerequisite: I S 300.
Introduction to business computer programming. Use of C++ programming language to familiarize the student with proper programming style and practice.
Letter grade only (A-F).

## 355. Introduction to Business Telecommunications (3)

Prerequisite: I S 300.
Introduction to concepts and technology of telecommunications and networking in business and organizations. Basics of voice, data, image, and video transmission. Fundamentals of networking, use of Internet technology and telecommunication regulation and standards. Letter grade only (A-F).

## 380. Database Management (3)

Prerequisite: I S 300.
Introduction to database requirements, analysis and specification. SQL query formulation. Database implementation using relational database management system software, such as Oracle. Design of computerized business forms and reports.
Letter grade only (A-F).

## 385. Systems Analysis and Design (3)

Prerequisite: I S 300.
Introduction to current and emerging practices, concepts and methods of systems analysis and design. Development process models, requirements analysis and system modeling, conceptual and physical design, systems implementation and maintenance, project management and teamwork, oles and responsibilities of systems analysts.
Letter grade only (A-F).

## 445./545. Internet Applications Development (3)

Prerequisites: IS 301, 343 or 340.
Design, management, and applications of Internet-based electronic business transaction systems. Special emphasis on Web home page design. Internet applications in functional areas including accounting, finance, marketing, and management. Intranet and groupware. Lecture, hands-on, software project and case studies. Letter grade only (A-F).

## 446. Web Development and User Interface Design (3)

Prerequisites: IS 301, 340 or 343
Theory and applications of Web page and user interface design using development tools such as Adobe Photoshop/lllustrator and FRONT PAGE HTML editor. Internet business opportunities, network security, home page maintenance, and cooperative computing.
Letter grade only (A-F).
455. Local Area Networks (3)

Prerequisites: IS 301, 355.
Technology and system development of local area networks. Network requirement analysis, design, implementation, and operation from user and network administrator perspectives. Network server management, wide area network and Internet connectivity, and network security and control.
Letter grade only (A-F).

## 456. Systems Integration and Security (3)

Prerequisites: IS 301, 355.
Technology, application, operating system, infrastructure, and systems integration in internetworking and enterprise networking. Interoperability, mobile system, multimedia, distributed and collaborative system, network management, fault tolerance, security and middleware. Case studies and hands-on activities.
Letter grade only (A-F).

## 457. Wireless Systems and Mobile Applications (3)

Prerequisites: IS 301 and 355.
Application of information technologies, management in wireless and mobile environment. Technical aspects of wireless internetworking and mobile applications in business. Pervasive and ubiquitous computing environment and applications. Current technical issues, application development, and human interface design
464./564. Network Modeling and Simulation (3)

Prerequisites: IS 301, 310, 355.
Fundamentals of simulation methodology, use in performance measurement and feasibility study of business models of real systems. Topics include; basic probability distributions, random number generation, model formulation, evaluating results, validations, waiting-line simulation, network fundamental, and computer network performance measurement via simulation, computer software simulation packages.
Letter grade only (A-F).

## 470. Decision Support Systems (3)

Prerequisites: IS 301, 310, 380.
Use of information systems technologies to support decision making by managers. Emphasis is given to individual and group decision support systems, expert systems, and executive information systems.

## 480. Advanced Database Management (3)

Prerequisites: IS 301, 380.
Advanced approaches such as object oriented, data warehousing, and client/server methods to database applications and development. Use of entity-relationship analysis to identify objects. Development of relational database systems for a business. Application software development project using cutting-edge database technology.
Letter grade only (A-F).

## 483. Business Applications Using Java (3)

Prerequisites: IS 300, 301
Handling opportunities and challenges in developing the information superhighway. The features, tools and languages of the Web..Assessment of Web services. Organizational development of new functions and new ways of reaching customers.Impact of these changes on society. Familiarization with the tools and technologies underpinning networking. Identification and evaluation of opportunities emerging in electronic business.
Letter grade only (A-F).

## 484./584. Electronic Commerce (3)

Prerequisites: IS 300, 301.
Changes to lifestyle and business transactions in the upcoming decade with technological breakthroughs in electronic commerce. Introduction to emerging concepts and practices in the field of online commerce via the Internet. Shaping of consumer behaviors and business systems by online commerce.
Letter grade only (A-F).

## 485. Information Systems Project (3)

Prerequisites: IS 301, 380.
A comprehensive systems project of moderate complexity for a client-server environment using a team approach for requirements analysis, system design, and prototype creation. Project planning and management techniques.
Letter grade only (A-F).
495. Selected Topics (1-3)

Prerequisites: Consent of instructor and GPA of 3.0 or higher in major, IS 301.
Topics of current interest in the field as announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.

## *497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair; student must be on Dean's List with a GPA of 3.0 or higher in Management Information Systems.
Individual projects, research, or study in the option.

## GRADUATE LEVEL

## 545./445. Internet Applications Development (3)

Prerequisites: IS 602 or equivalent and consent of instructor.
Theory and applications of the Internet. Applications development using tools such as HTML and FrontPage. Use and development of Intranet applications in the Client/Server environment. Issues such as Internet business opportunities, network security, home page maintenance, Internet database interface and cooperative computing.
Letter grade only (A-F).

## 550. Business Telecommunications Management (3)

Prerequisite: IS 602 or equivalent.
Introduction to the technologies and applications of telecommunications and networking. Infrastructure planning and operation of organizational telecommunication networks. Management and control of Internet servers and mobile systems. Telecommunication regulation and standards.
Letter grade only (A-F).

## 564.I464. Network Modeling and Simulation (3)

Prerequisites: IS 601 and 550.
Fundamentals of simulation methodology and its use in performance measurement and feasibility study of business models of real systems. Basic probability distributions, random number generation, model formulation, evaluating results,
validations, waiting-line simulation, network fundamental, and computer network performance measurement via simulation.Use of computer software simulation packages.
Letter grade only (A-F).

## 580. Management Support Systems and Database Management Systems (3)

Prerequisite: IS 602 or equivalent.
Management Support Systems (MSS) with special emphasis on database management techniques. Use of information and database techniques to support management decision making. Individual and group decision support systems, groupware, expert systems, executive information systems, database management systems (DBMS), database analysis and design, database manipulation languages (SQL and QBE), and data warehousing. Hands-on projects on both MSS and DBMS.
Letter grade only (A-F).

## 584./484. Electronic Commerce (3)

Prerequisite: IS 602 or equivalent.
A comprehensive managerial-oriented examination of the development of various electronic commerce applications on the internet. Major applications include advertisement and marketing, customer service, stocks and commodities, trading, market and product research and standard business-to-business transactions. EDI implementation issues such as security and payment methods. Letter grade only (A-F).

## 601. Quantitative Methods for Managerial Decision Making (3)

Prerequisite: MBA standing required.
Statistical analysis includes probability, estimation, hypothesis testing, forecasting and decision process. Management sciences include quantitative modeling, math programming, decision support systems and simulation applicable to various business functions. Use of computer software packages as analytical tools. May be repeated to a maximum of 3 units.
Letter grade only (A-F).

## 602. Management of Information Systems (3)

Prerequisite: MBA standing required.
Foundation and infrastructure of information technology applied to strengthen competitiveness. Effective utilization of strategic information systems, telecommunications, system development process, database concepts and electronic commerce to enhance organizations' operations.
Letter grade only (A-F).

## 695. Selected Topics (3)

Prerequisites: Graduate standing and consent of instructor.
Topics to be announced in the Schedule of Classes.
Letter grade only (A-F).
697. Directed Studies (1-3)

Prerequisites: Graduate standing and consent of instructor. Individual study under the direction of the faculty. Letter grade only (A-F).

# INTERDISCIPLINARY STUDIES <br> University Academic Programs 

Associate Vice President for Academic Affairs, Graduate and Undergraduate Programs<br>Cecile Lindsay<br>Director, Undergraduate Program<br>D. Margaret Costa<br>Director, Graduate Program<br>Bruce L. Berg<br>Office<br>FO5 205<br>Phone<br>(562) 985-7194<br>Website<br>http://www.csulb.edu/divisions/aa/grad_undergrad/isp/

University Academic Programs is the administrative designation for a group of University-wide academic programs that are interdisciplinary in nature. The Interdisciplinary Studies program offers students the opportunity to develop individualized cross-disciplinary majors utilizing courses from appropriate departments at California State University, Long Beach. Each student, with the help of department faculty advisors, must select courses and focus his/her major on the basis of a unifying issue, theme or topic called an area of concentration. The area of concentration must meet three criteria to be acceptable:

- First, the area of concentration must be interdisciplinary. This means the area of concentration must integrate and focus approaches and knowledge from at least two fields or disciplines. The principle of integration can be historical, regional, thematic or problem-focused.
- Second, the area of concentration must not replicate any existing major. The purpose of the Interdisciplinary Studies major is to create an individualized curriculum where no structure or formal program exists.
- Third, the area of concentration must be feasible. Each student's proposed program must be discussed with faculty advisors to ensure that the range and number of courses required will be available.
The student's role in the selection of the area of concentration is active not passive. The student must actively plan his/her program and cultivate relationships with assigned or chosen faculty. Furthermore, the student has the initial responsibility in shaping his/her program, with the guidance of the department advisors.


## Bachelor of Arts in Interdisciplinary Studies (code IDSCBA01) (120 units)

The Interdisciplinary Studies Bachelor of Arts degree allows selected students to engage in an individualized baccalaureate program when legitimate academic and/or professional goals cannot be accommodated by existing academic programs or combinations of such programs (i.e., majors, minors, certificates). Acceptance into the ISP program is a privilege and not a right of CSULB students. Interdisciplinary Studies consist of a closely correlated program of study in two or more departments developed in conference with faculty members from the respective departments who have the academic and professional expertise necessary to support the individualized course of study.

The Interdisciplinary Studies Program is not a means of bypassing normal graduation requirements nor a means by which students may seek to graduate who have failed to gain admission to impacted programs nor to complete a degree major in which they are currently enrolled. Consequently, a candidate must apply for approval of an interdisciplinary Studies major when:

1. At least one full year of academic work ( 30 units) remains to be completed to meet minimum graduation requirements;
2. At least $2 / 3$ of the upper-division (300-400) units in the proposed course of study remain to be completed at the time the application is submitted for approval; and
3. The GPA in the current major is 2.0 or better. A higher grade-point average may be required if the Primary department in the Interdisciplinary Studies program of study is impacted or requires a higher GPA for transfer students.
4. An Interdisciplinary Studies program must be justified by legitimate career, academic, and/or professional goals commensurate with the broader mission of the University in baccalaureate education. Interdisciplinary Studies majors are considered on a case-by-case basis. Approval is determined on the basis of the academic merit of the proposed course of study, the proposal rationale, the applicant's potential for successful completion of the program, the potential application of the resulting degree, and the ability of the University to support the proposed program. It is the student's responsibility to provide a clear written statement of the goals for his or her program of study, and the reasons these goals cannot be accomplished using an existing major, or combination of major and other available programs, and or concentrations of course work.

## Procedures

1. To prepare for the initial interview:
A. Review the CSULB Catalog Interdisciplinary Studies Program requirements.
B. Meet with the ISP Director and consider your reasons for selecting an Interdisciplinary Studies major;
including why a traditional major, double major, major and a minor, or other conventional educational pathway will not suffice. Discuss with the ISP Director what combination of courses in disciplines/departments you are interested in combining, and explain how this combination will:
1) facilitate the achievement of your career and/or educational goals and objectives;
2) provide you with an opportunity to obtain skills and knowledge not otherwise available at CSULB through conventional programs and degree options.
2. Meet with the Department's Undergraduate Advisor, or in the absence of a Department Undergraduate advisor meet with the department chair from each prospective department from which you propose courses to combine in the IS major. With the guidance of these individuals, create a tentative program of study, subject to the Director of ISP's approval.
3. Draft a program of study with the assistance of the Undergraduate Advisors and/or Chairs of the various departments from which courses for your program of study will be used. Arrange a meeting with the Department Undergraduate Advisor and the Department Chair of each of the respective departments. With their guidance develop a list of courses (a program of study) that will constitute your Interdisciplinary Studies degree program. Obtain signatures of approval for the Program of Study from these respective Advisors/Chairs. Any subsequent changes must be made using the official Program Addendum forms.
4. Draft a three-to-four page proposal essay outlining the program of study you have created. State what you foresee will be the length of time you will need to complete your degree. Explain why no existing degree will assist you in terms of achieving your intended goals or propelling your future career.
5. Return your program of study along with your typed interdisciplinary studies proposal to the Interdisciplinary Studies Director. Completed programs must be signed by Undergraduate Advisors and chairs from all departments from which courses included in the Program of Study have been chosen. The Interdisciplinary Studies Director is the final signator on the Program of Study. Be advised that pending final approval of your interdisciplinary studies program, you should proceed with the course work for your previously declared major or with General Education and elective courses. You should delay taking courses that apply exclusively to your proposed Interdisciplinary Studies major until all signatures have been secured. Thus, in the event you are not accepted into the Interdisciplinary Studies program, you will not have impeded your academic progress.

## Requirements

1. An interdisciplinary studies major consists of a maximum of four lower-division courses (100-200) and a minimum of 28 units of upper-division courses (300-400) totaling a minimum of 40 units in the program.
2. An Interdisciplinary Studies Program is based on a thematically cohesive core of classes involving significant work in two or more disciplines. A proposal must accompany the program and be signed by the
faculty advisors when the program is submitted to the Interdisciplinary Studies Program Director for approval.
3. Interdisciplinary courses (1) taken to satisfy General Education requirements may be double-counted to meet Interdisciplinary Studies Program unit requirements, if the program consists of more than 48 units of credit.
4. The maximum amount of course work that may be taken in one department is $60 \%$ of the total course work designated for the program.
5. Students may need more than four lower-division courses to prepare for the upper-division courses in their major. However, no more than four of these lower-division courses will be counted in the official program.
6. Students must maintain a 2.0 or better GPA in their program course work in order to remain in the major.
7. Each Program course and prerequisite course must be completed with a grade of 'C' or better.

## Bachelor of Science in Interdisciplinary Studies (code IDSCBS01) (120 units)

## Requirements

The basic requirements and application procedures for the Bachelor of Science in Interdisciplinary Studies shall be the same as the Bachelor of Arts degree in Interdisciplinary Studies. The Bachelor of Science is awarded when the Primary department typically issues a Bachelor of Science degree.

## Master of Arts (code IDSCMA01) and Master of Science (code IDSCMS01) in Interdisciplinary Studies

The Master of Arts or Master of Science degree in Interdisciplinary Studies permits students to earn an interdisciplinary master's degree when their special needs or interests cannot be met by any existing CSULB graduate degree program. The Interdisciplinary Studies master's degree is not a degree divided between or among disciplines, but is a cohesive program of study, which integrates the methodologies, perspectives, and content of two or more disciplines. A master's degree in Interdisciplinary Studies must be justified by legitimate academic goals.

Acceptance of an applicant to an Interdisciplinary Studies master's program is based on such considerations as the academic merit and rationale of the proposed course of study, the applicant's potential for successful completion of a master's program, the potential application of the degree towards the applicant's career and educational goals, and the ability of the University to support the proposed study with faculty, curricula, and facilities. Candidates should carefully assess goals before proceeding with this degree. The degree program is administered by the Dean of Graduate Studies through the office of the Interdisciplinary Studies Director, Academic Services, room 125.

## Prerequisites

1. A bachelor's degree from an accredited college or university
2. Submission of any standardized test scores (e.g., GRE, GMAT, etc.) or screening activities required by the identified Primary discipline, or primary department (Usually the department issuing the Master's).
3. An interdisciplinary master's program requires demonstration of potential for success in each of the disciplines relevant to the proposed degree work. The relevant Department Graduate Advisors, in consultation with the student will determine the appropriate prerequisite courses for each program; these are listed on the Prerequisite Sheet that accompanies the Application for a Master's Degree in Interdisciplinary Studies.
4. Students must meet the required GPA of their identified Primary discipline in the last 60 units of work completed at an accredited college or university and a 3.0 GPA in all prerequisite course work listed on the Prerequisite Sheet.
5. No more than 9 units of previously completed course work can be included in the program.
6. Students must maintain a 3.0 or better GPA in their program course work in order to remain in the major.

## Acceptance to the Program

Those students who meet all program and University prerequisites for graduate study and whose Interdisciplinary Studies master's programs have been approved by the Interdisciplinary Studies Director will be admitted as Classified graduate students in the Interdisciplinary Studies program. Students who have not met all program and University prerequisites but who demonstrate potential for their successful completion will be encouraged to complete their materials and resubmit during the immediately following full semester.

## Procedures

1. Check our Website: http://www.csulb.edu/divisions/aa/ grad_undergrad/isp/ to see if you might qualify for an Interdisciplinary Studies Program of study.
2. Make a formal application to the University for Admissions, and a separate application to the ISP Director.
3. Make an appointment for a preliminary interview with the Director of ISP in FO5 room 208. For this interview, prepare a written proposal three to four pages in length, which:
A. Identifies by title the interdisciplinary program of study in which you wish to engage (i.e., Interdisciplinary Studies Master's Degree in . . . [Indicate a description with no more than a total of 30 characters];
B. Explaining why this course of study cannot be pursued in one existing department with electives from other departments;
C. Explaining how this program relates to your educational and career goals;
D. Indicating your background, both academic and experiential, for undertaking this course of study; and
E. After meeting with the Department Graduate Advisor from each of the relevant departments, develop a program of study of CSULB courses appropriate to your goals.
4. Make a second appointment to meet with the Interdisciplinary Studies Director. Bring your proposal for review and approval. If the proposal is found promising and University facilities can support the proposed program of study, the Interdisciplinary Studies Director will direct you to the appropriate forms and guidelines necessary to proceed with application to the program as outlined in item 5 below.
5. Complete the Student Program form for the Masters' Degree in Interdisciplinary Studies provided online at the ISP website. Have each of the Department Graduate Advisors from the relevant departments sign this form indicating their approval of your program of study. Submit the proposal, the Prerequisite Check Sheet for the Master's Degree in Interdisciplinary Studies, the Student Program for the Master's Degree in Interdisciplinary Studies, to the Interdisciplinary Studies Director. These materials constitute the Application for a Master's Degree in Interdisciplinary Studies. These materials are reviewed by the Interdisciplinary Studies Director whose signature on the Student Program for the Master's Degree in Interdisciplinary Studies signals acceptance of an applicant to the program. Subsequent modification of an approved Student Program requires approval of the relevant department Graduate Advisors, and the Interdisciplinary Studies Director, on an official Change of Program form to be obtained from the Interdisciplinary Studies Director. It should be noted that all necessary prerequisite courses must be completed before taking courses listed on the Graduate program of Study.

## Advancement to Candidacy

Advancement to candidacy is formally approved by the Assistant Vice President for Academic Affairs-Curriculum and Advising, of the Student Program for the Master's Degree in Interdisciplinary Studies. Graduate students are apprised of their advancement or failure to be advanced by the Dean of Graduate Studies. Any modifications to the Student Program after advancement to candidacy require the approval of the Interdisciplinary Studies Graduate Committee, the Interdisciplinary Studies Director, and the Dean of Graduate Studies on an official Addendum to Program form to be obtained from the Interdisciplinary Studies Director. Students must have advanced to candidacy at least one full semester prior to graduation, but should do so sooner.

In addition to university requirements, the student must have completed all program courses with no grade less than "C". Students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and should make an appointment with the Interdisciplinary Studies Director for Advancement upon completion of at least six units of 500 or 600 level courses.

The Interdisciplinary Studies Director will submit an Interdisciplinary Studies graduate student's program for advancement to candidacy when the following conditions apply:

1. Satisfactory completion of all prerequisite course work with a minimum 3.0 GPA (see item 3 in Prerequisites above) as well as any additional prerequisites (i.e., departmental qualifying exams);
2. Completion of a minimum of six units of graduate-level (500600) program work with a 3.0 GPA;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Approval by the Interdisciplinary Studies Director of the completed Application for Thesis and Committee Form for thesis option programs;
5. Resolution of all incomplete grades (I) on the record;
6. A cumulative 3.0 GPA in all completed program work;
7. Current enrollment in University course work.

## Requirements for the Master of Arts Degree

1. A minimum of $60 \%$ of the units required for the degree must come from the "Primary department" and be in the 500 and 600 level series. The number of units required for the degree shall be the number of units approved on the individual student's program (minimum 30 units).
A. No fewer than 18 units shall be at the 500-600 level to complete residency at CSULB. Extension 500-600 level courses are not acceptable on the Interdisciplinary Studies graduate program towards residency;
B. No more than $60 \%$ of total course work may be taken in any one department;
C. Where appropriate, a research methodology course taken in the area of focus must be included in the graduate student's Program of Study.
D. No less than 15 units shall be completed within a Primary department (The Primary department is normally the degree-issuing department);
E. Up to six units of approved extension or transfer units may be used in fulfillment of the student's program of study. Nine units of extension credit may be used if all nine have been taken at CSULB. These limits may be increased further for degrees requiring more than 30 units that:
1) at least 24 units have been taken in residence at CSULB; and
2) no graduate student program may use extension or transfer credit to satisfy the requirement that at least $60 \%$ of the total units be taken at the 500 and 600 levels.
F. No more than three units of independent study in addition to Thesis on a minimum 30-unit program.
3) Exceptions to this regulation are as follows:
a) Up to six units of independent study in addition to Thesis may be permitted in a minimum 30-unit program when the projected studies are not to be taken in the same department and when the focus of each projected independent study is clearly distinct from the other (as evidenced on the Independent Study Agreement); forms should be submitted with all other materials constituting the Application for a Master's Degree in Interdisciplinary Studies (see item 3, under Acceptance Procedures above), and when each independent study is justified by the student's graduate committee as programmatically essential;
b) In excess of six units of independent study in addition to Thesis may be permitted only in cases when an Interdisciplinary Studies graduate program exceeds the minimum 30 units; when the focus of each projected study is clearly distinct from any others; and when each study is justified by the student's graduate advisors as programmatically essential. Programs with more than six units of independent study will be referred to the Interdisciplinary Studies Advisory Board for final approval.
2. Successful completion of a Thesis or Comprehensive Exam. The selection of the Thesis or Comprehensive examination option will be made by the student, if such an option is available in the Primary department identified in the Graduate Student Program of study. If no option is available, the student will comply with the culminating requirements of the Primary department.
3. Students electing to write a thesis must enroll for thesis credit in their Primary department (the Primary department identified in their Graduate Student program of study);
4. Students opting to write a thesis must identify a thesis committee by the beginning of their second full semester of graduate study, complete a thesis proposal form, and submit it to the ISP director. The Thesis Committee must include a chair (from the primary department) and at least one representative faculty member from each of the disciplines included in the student's Graduate Program of Study. A thesis committee shall contain no fewer than three members, at least two of which must be tenuretrack CSULB faculty. The chair of the committee must be a tenured, or tenure-track faculty member.
5. All requirements of the degree program must be completed within seven years of the date when the program was initiated (i.e., no course on the program at the time of graduation may be more than seven years old).

## Requirements for the Master of Science Degree

The basic requirements and application procedures for the Master of Science in Interdisciplinary Studies shall be the same as the Master of Arts degree in Interdisciplinary Studies. One distinction, however, is commonly a requirement by the programs that issue a Masters of Science degree that a thesis be successfully written. Students will follow the exit requirements of their Primary department.

# INTERNATIONAL BUSINESS <br> College of Business Administration 

## Director

Paul L. Frantz
Co-Director
Clyde Stoltenberg
Phone
(562) 985-5072 or (562) 985-5671

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

1. Lower Division: ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115, and PHIL 160 or 170.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score (70\%) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300, ACCT 310, ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310 or 320, FIN 300; MGMT 300; MKTG 300, IS 301).
C. Completion of International Business Option requirements.
4. Elective courses to total 120 units. Student are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in International Business (code FIN_BS02) (120 units)

The objective of the international business option is to prepare students for the increasingly competitive and interdependent international business world with which they must cope. There is great and growing need for American business school graduates to be better informed about how to compete and do business outside the U. S. as well as in the U. S. market where much of their competition is from foreign firms. Students need to understand how international business practices and customs differ from those in the $U$. S . They need some familiarity with a language other than English as well as knowledge of culture and world geography.

## Requirements

1. ACCT 465; FIN 490; MGMT 405 or 406 ; MKTG 480
2. Any one of the following courses: BLAW 424, HRM 458, MGMT 405 or 406 (whichever was not taken in satisfaction of requirement 3), or any "Short-Term Study Abroad" Special Topics courses and all courses in the "Doing Business Abroad" series.
3. Two years (4 semesters or 6 quarters) at the baccalaureate level of one of the following languages: Chinese, French, German, Italian, Japanese, Russian, or Spanish. Under individual, special circumstances, the Director of the International Business Option may approve a language other than those listed above to satisfy the language requirement for a degree in the option.
4. Choice of the language will determine the country or geographic area of the world about which the student must study a minimum of 2 courses ( 6 units).
These will be in lieu of 6 other elective units, and can be double counted as part of the student's general education requirement, if approved to meet GE requirements.

## G.E. or Elective Courses

Select two courses (6 units), appropriate for your choice of language:
All Languages: ANTH 412I, POSC 371, 485, I/ST 317I, 318I, 319I, 355, LING 413, 425, 470, COMM 330, 452, W/ST 401.

Chinese: ANTH 332, A/ST 301I, 310, 495I, CHIN 370, 301, HIST 382B, 406B, 488, POSC 362, R/ST 101B, 331I, 341I, 343, CWL 403.
French: CWL 330A,B, ECON 361I, GEOG 316, HIST 335, 339, POSC 353, FREN 335, 336 or courses taken at a specified French university with which CSULB has an exchange agreement and taught by instructors from CSULB may be approved by the Director of the International Business Program in partial or full satisfaction of this requirement.
German: CWL 330A,B, ECON 361I, GEOG 316, HIST 335, 339, 437, POSC 353, GERM 309, 415, 416, 380 I.
Italian: CWL 330A,B, ECON 361I, GEOG 316, HIST 332, 335, 339, POSC 353

Japanese: ANTH 335, A/ST 301I, 310, HIST 383B, 384, 406B, 407I, JAPN 350, 451, 471, R/ST 103, 341I, 344, CWL 403.
Russian: ECON 361I, GEOG 318, GERM 410, HIST 341B, 441, POSC 356, RUSS 310, 4101.
Spanish: ANTH 323, 324, ECON 361I, 363, GEOG 320I, HIST 364, 433, 462, 463, POSC 358, 359, 459, SPAN 330, 341, 430, 445, CWL 440.

## Undergraduate Certificate in International Business (code FIN_CT01)

Phenomenal growth of multi-national companies has been apparent in recent years, with increasing internationalization of the business world. Multi-national firms, governmental agencies, and varied international organizations express heightened demand for management personnel with a broad, global perspective. The Certificate in International Business, Undergraduate Program, combines an undergraduate degree in business with additional training in the area of international business beyond that normally included in a traditional business program. The objective of the program is to enhance the scope and perception of the business student to include the international business environment. Courses used to meet requirements for the Certificate in International Business may also apply toward College of Business Administration degree requirements.

## Requirements

1. A bachelor of Science degree in Business Administration. This requirement may be completed concurrently with certificate requirements;
2. Six of the following: CBA 300; ACCT 465; BLAW 424; FIN 490; HRM 458; MGMT 405, 406; MKTG 480 or 481.
3. Grade of " $C$ " or higher required in each course completed;
4. The Certificate Program does not permit use of the Credit/No Credit option. Students with specific geographic areas of interest should consider development of language competence and cultural understanding relative to their area of interest concurrent with their Certificate Program. For additional information or for application to the program, interested persons may contact the Director of International Business Program.

# INTERNATIONAL STUDIES <br> College of Liberal Arts 

## Acting Director

Charles Noble
Program Office
Social Sciences and Public Affairs (SPA) 257
Telephone
(562) 985-4704

Program Secretary
Nancy St. Martin
Telephone
(562) 985-4705

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(562) 985-4979

Website
http://www.csulb.edu/depts/intlst/
Faculty

## Professors

Jutta Birmele (German), Norma Chinchilla (Sociology), Kenneth
R. Curtis (History), Clorinda Donato (French and Italian), Larry
N. George (Political Science), Elaine Haglund (Educational Psychology), Jack Hou (Economics), Arnold Kaminsky (Asian and Asian-American Studies), Claire Martin (Spanish), Harold K. Schefski (Russian), Donald Schwartz (EDSS)

## Associate Professors

Houri Berberian (History), James Curtis (Geography), Arlene Lazarowitz (History), Larry Martinez (Political Science), Teresa Wright (Political Science)

## Assistant Professors

Nielan Barnes (Sociology), James G. Ellison (Anthropology), Thamora Fishel (Anthropology), Richard Haesly (Political Science), Paul Laris (Geography), Elizabeth Philipose (Women's Studies)

## Bachelor of Arts in International Studies (code I/STBA01) (120 units)

The Bachelor of Arts in International Studies is an interdisciplinary degree program designed to provide a rigorous introduction to the complex interrelationships that exist among societies in the modern world. It combines the study of international relations, global and development issues and contemporary belief systems with a concentration on a major world area. In addition, the degree aims to equip students with the skills in language, analytical thinking, research, and economic literacy that are necessary for graduate study and careers in international fields. Further, students in the International Studies program receive direct exposure to an international environment by participating in a foreign study program or an internationally related internship in this country. Because it is interdisciplinary, this program emphasizes the ways in which the expertise and methodologies of various disciplines contribute to the understanding and resolution of international issues.

The program provides a broad understanding of international issues and world cultures through exposure to the various methodologies of the social sciences and liberal arts. It offers pre-professional study for careers in government, communications, business, law, journalism, and international non-profit organizations. Students are encouraged to combine a major in International Studies with a second major or minor in a field appropriate to their career plans.

All International Studies majors are required to develop a program of study in consultation with the program advisor. This program should be balanced among the participating disciplines in order to help the student develop a coherent emphasis in a world region and/or a topical area. Majors should choose their foreign language, foreign study or internship experience, and senior seminar research project to reflect this emphasis. The program director also advises about post-graduate study.

## Requirements

A minimum of 45 units in a program approved by the International Studies advisor.

## Requirements not included in major

Economic Literacy (units not included in total for major; may be fulfilled as part of General Education): ECON 100 and 101; or, with prior permission of the International Studies Advisor, ECON 300.
Foreign Language: Three years of college level study or equivalent proficiency in a language appropriate to the program of study and geographic area concentration selected

## Major Requirements

Lower Division (12 units): I/ST 200; and an additional 9 units chosen from the following: ANTH 120; HIST 212; GEOG 100 or 160 ; POSC 215 or 220.
Upper Division - a minimum of 33 units including:
Cross-Cultural Communication: 3 units, chosen from: ANTH 412I, 413; COMM 330.
Basics of International Relations: Select 6 units from the following: ECON 372; GEOG 470; HIST/I/ST 478; POSC 371, 378, 485.
Development Studies - 6 units, selected from: ANTH/ GEOG 307I; ECON 465; GEOG 460; HSC 420; JOUR 312I; POSC 461I; I/ST 317I, 318I, 319I, 355I; SOC 350; W/ST 401I.
Contemporary Belief Systems: 3 units selected from: ANTH 305I; ECON 313; POSC 306; R/ST 383I; SOC 356.

Area Concentration
Choose 9 units from one of the following six areas:
Asia: A/ST 300I, 301I, 310, 495I; ANTH 332, 333, 335; GEOG 314I; HIST 382B, 383B, 384, 385, 386, 407I, 488; POSC 362, 363, 366
Latin America: ANTH 323, 324; GEOG 320; HIST 364, 462, 463, 466; CHLS 310; POSC 358, 359, 481

Africa: ANTH 336, 426; B/ST 337, 380, 430, 460; GEOG 308I; HIST 391, 392.
North Africa and the Middle East: GEOG 309I, HIST 431; POSC 367; R/ST 331I, 315 I.
Eastern Europe/Former Soviet Union: GEOG 318; HIST 341B; POSC 356, 357
Western Europe: ECON 361I; FREN 440; GEOG 316; GERM 380I, 410, 416; HIST 337, 339, 357, 437; POSC 353; SPAN 430.
Internship or Foreign Study: (I/ST 492, 3 units) An internship or foreign study program related to the course of study selected, as approved by major advisor.
Senior Research Seminar: (I/ST 490, 3 units) As approved by the director of the International Studies program.

## Minor in International Studies (code I/STUM01)

The Minor in International Studies consists of a minimum of 21 units at least 15 which must be upper division courses, together with at least two years of college level of study (or equivalent proficiency) in a language (other than English) relevant to the student's program of study in International Studies.

## Requirements

Economic Literacy: Three units selected from ECON 100, 101, or with the consent of the International Studies advisor, upper division students may take ECON 300. (Units earned in satisfaction of this requirement may not be counted as part of the unit requirement in the minor.)

Lower Division: Three units of I/ST 200 and three units selected from ANTH 120, HIST 212, GEOG 100 or 160; POSC 215 or 220.

Upper Division: Three units selected from the courses grouped under Cross Cultural Communications or from the courses grouped under Contemporary Belief Systems as those groups are defined for the Bachelor of Arts degree in International Studies.

Either six units selected from the Courses grouped under Development Studies or six units selected from the courses grouped under Basics of International Relations as those groups are defined for the Bachelor of Arts degree in International Studies.

Six units selected from one of the geographic Area Concentrations defined for the Bachelor of Arts degree in International Studies.

## Courses (I/ST)

General Education Foundation must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## LOWER DIVISION

## 200. Introduction to International Studies (3)

Prerequisite: Completion of all GE Foundation courses.
Analyses of "the international." Theoretical, political, social and cultural perspectives on contemporary globalization, modern European colonialism, and the historical and contemporary relationship of the United States to global relations and processes.

## UPPER DIVISION

## 317I. Problems in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing. Interdisciplinary analysis of social conflict in the world. Topics may include ethnocentrism; nationalism; globalization; trade; aid; economic development; poverty; inequality; the environment; war; ideological, ethnic, gender, and religious conflict; democratization; social movements; new forms of civil society and social solidarity.
Letter grade only (A-F). Same course as SOC 3171.
3181. Cases in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Case studies will focus on globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest; human rights; democratization; global citizenship; environmental sustainability.
Letter grade only (A-F). Same course as SOC 318I.

## 319I. International Development (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, upper-division standing.
Theoretical and practical analysis of social, political, and economic development and alternative developmental models. Contemporary and historical comparisons of how "developed" and "developing" areas of the world have confronted various economic, social, and political challenges.
Same course as GEOG 319 .
355I. International Environmental Issues (3)
Prerequisites: Completion of the GE Foundation, one Explorations course, and upper division standing.
Examines the deterioration, destruction, maintenance and restoration of environmental systems and resources. Identifies and analyzes major environmental problems that have international dimensions. Investigates ongoing and potential efforts to resolve them.
Same course as GEOG 3551.

## 451. International Women's Movements (3)

Prerequisite: Consent of instructor.
Examines the origins, nature, and impact of global women's movements. Issues include women and violence; war and militarism; economic and political inequalities; environment and development; labor; international tourism; global sex work and trafficking.
Letter grade only (A-F).

## 478. Foreign Relations of the U.S. (3)

Incorporates a global perspective and considers the influence of such issues as domestic politics, bureaucratic rivalry and decisionmaking, economics, ideology, race, and the role of special interest groups on the making of foreign policy.
Same course as HIST 478.

## 490. Senior Research Seminar in International Studies

 (3)Prerequisites: Senior status or consent of the International Studies advisor and instructor.
Capstone research seminar for International Studies majors. Classroom preparation for directed research by students on a topic of their choice integrating international economics, international politics, cross- cultural communication, development studies, contemporary belief systems, language skills, and a geographic area.
Letter grade only (A-F).
492. International Studies Internship/Foreign Study (3)

Prerequisites: Consent of I/ST advisor; completion of a minimum of 15 upper division units required for the major in International Studies.A qualified study abroad program or an internship with internationally-oriented, governmental, non-governmental, and forprofit organizations required of I/ST majors.
Internship conducted under joint supervision of program sponsor and CSULB faculty. Final report required for internships.
Credit grading only.
493. Special Topics (1-6)

Prerequisite: Consent of instructor.
Analysis of contemporary issues and problems in International Studies.
Topics to be announced in the Schedule of Classes.
499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Individually directed studies of special problems in International Studies.
May be repeated to a maximum of 6 units with consent of program director. May not be credited toward the major in International Studies without written department consent in advance of enrollment. (Supervised) Letter grade only (A-F).

ITALIAN
College of Liberal Arts
Department of Romance, German, Russian Languages and Literatures

Department Chair<br>Jutta Birmele<br>Program Director<br>Carlo Chiarenza<br>RGRLL Language Coordinator<br>Markus Muller<br>Single Subject Coordinator for L.O.T.E.<br>Jean-Jacques Jura<br>Department Office<br>McIntosh Humanities Building (MHB), Room 820<br>Telephone<br>(562) 985-4318<br>Faculty<br>Professors<br>Carlo Chiarenza, Clorinda Donato<br>Assistant Professor<br>Teresa Fiore<br>Administrative Support Coordinator<br>Cindy McCarty<br>Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

The Italian Program exists thanks to an agreement between the Italian American community in the area and CSULB. This collaboration led to the establishment of the program itself as well as the Center for Italian Studies, named in honor of Mr. George Graziadio. In acknowledging his Italian origins, his founding gift speaks to his desire to foster Italian Studies in Southern California. Since 2001 the Center has promoted the diffusion of Italian language, culture, and civilization through a variety of cultural events (lectures, conferences, film screenings, etc.) related to Italian and Italian-American Studies. Additionally, the Center offers a number of scholarships to study in Italy and regularly organizes workshops on Italian teaching. Its program of events, which gives students the unique opportunity to be exposed to Italian language and culture in its various facets outside the classroom, is often shaped in collaboration with Italian and Italian American institutions and organizations in the area.

## Bachelor of Arts in Italian Studies (code RGR_BA09) (120 units)

The BA in Italian Studies is a comprehensive program that provides students with a solid humanities-based grounding also applicable to professional fields outside of the humanities. Whereas Italian Studies continues to be a field of choice for students interested in Art, Art History, Music, History, and Comparative Literature, it is increasingly relevant for professions in Fashion, Design, and International Business. The Italian Studies BA Program connects Italy's traditional intellectual and artistic legacy with its dynamic development as a modern industrialized country renowned for combining taste and technological innovation. The job mobility and cultural exchange fostered by the European Community and fueled by the global economy at large have made Italian into a language with vast applicability: the currency of the Italian language worldwide is also reflected in its growth as a subject taught in the American school system. In light of this expansion, the Bachelor of Arts in Italian Studies is a wise choice for students who plan to pursue a teaching career that combines two foreign languages or one foreign language and another subject in the humanities.

In order to meet such diverse needs, the BA Program offers two concentrations: Italian Language and Culture and Interdisciplinary Italian Studies. Regular consultation with advisors is highly recommended to ensure the proper choice of courses in view of future professional careers or continuation of studies at the graduate level.

Students in the BA program are strongly encouraged to study abroad through the CSU International Programs: they can spend from an intensive summer to an entire academic year in Florence and study either at the CSU center and/or at local academic institutions. While expanding their linguistic and cultural knowledge through this full-immersion experience, they earn credits towards their degrees. In addition, the Italian BA Program at CSULB offers internship opportunities at Italian and Italian-American institutions in the area.

Once students have met the first- and second-year general language requirements, in the third year they take a common set of core courses in the target language (composition, grammar, conversation as well as literature, literacy analysis, and civilation). In the fourth year they choose between the two concentrations: students intending to earn the teaching credential select the first, Italian Language and Culture, and take all coursework in the Italian language; students interested in a more interdisciplinary approach may select courses from the variety of department offerings (Music, Political Science, Geography, Art and Comparative Literature) included in the second concentration, Interdisciplinary Italian Studies. Both tracks share a common core.

## Requirements

The student must complete a minimum of 49 units as approved by Italian Studies Advisors.

One year of a second foreign language is required for the first concentration (Italian Language and Culture).

Lower Division
Competency in the Italian Language (16 units of lower division Italian): ITAL 101A, B, and 201A, B are required.

Some of these courses may be waived for students who have completed sufficient high-school Italian or have proved intermediate-level proficiency. Native speakers of Italian may not enroll in ITAL 101A,B or 201 A,B.

Upper Division
A minimum of 33 upper division units selected as follows:
Basic Core (24 units): ITAL 310, 312A, 312B, 314, 335, 336, 340, 482.

Concentration I (Italian Language and Culture):
Electives (9 units): ITAL 411, 414*, 454, 462, 473, 490, 494, 499.

* Candidates who intend to teach Italian language are required to take ITAL 414
Concentration II (Interdisciplinary Italian Studies) Electives (9 units): ITAL 411, 414, 440, 454, 462, 473, 490, 494, 499; AH 423, 424; C/LA 314I, 315I; C/LT 330 A**, $^{* * *}$, 422I, 430, 432, , 449**; HIST 332; MUS 436**; RGR 346I.
**Accepted only when syllabi include a good amount of Italian texts.


## Electives and Other Courses

Close work with the advisor will enable majors in Italian Studies to design a comprehensive study plan for their entire CSULB experience and for life-long learning. General Education courses and electives should be chosen carefully to coordinate with the major.

## Minor in Italian (code RGR_UM02)

The Italian minor can be taken in conjunction with any other major, and it is an excellent choice for students majoring in other Romance languages as well as in Art, Art History, International Business, Comparative Literature, Dance, English, History, Linguistics, Music or the Social Sciences. Besides grammar, composition and conversation classes, it offers courses in literature, civilization, cinema, and language history. The minor in Italian is open to any non-Italian major.

## Requirements

Minimum of 21 upper division units.
Required (9 units) ITAL 312A, 312B, 314
Electives ( 12 units) to be chosen from:
ITAL 310, 335, 336, 340, 411, 414, 440, 454, 462, 482, 490, 494, 499.

## Courses (ITAL)

## LOWER DIVISION

## 101A. Fundamentals of Italian (4)

Prerequisite or corequisite: Any Foundation course.
Practice in grammar, reading, pronunciation, writing, and conversation. For those who are just beginning the study of Italian or who have had one year of high school Italian.
(Lecture 4 hrs.)

## 101B. Fundamentals of Italian (4)

Prerequisite: ITAL 101A or equivalent.
Continuation of ITAL 101A. Practice in grammar, reading, pronunciation, writing and conversation.
(Lecture 4 hrs.)

## 201A. Intermediate Italian (4)

Prerequisite: ITAL 101B and completion of the Foundation requirement (or entering competency equivalent to ITAL 101B and completion or concurrent enrollment in at least one Foundation course.)
Grammar review with further development of reading, writing, speaking and listening skills (first part of a two-part sequence). (Lecture 4 hrs.)

## 201B. Intermediate Italian (4)

Prerequisite: ITAL 201A and completion of the Foundation requirement (or entering competency equivalent to ITAL 201A and completion or concurrent enrollment in at least one Foundation course.
Grammar review with further development of reading, writing, speaking and listening skills (second part of a two-part sequence). (Lecture 4 hrs.)

## 214. Intermediate Conversation (3)

Prerequisite: ITAL 101B. Can be taken concurrently with ITAL 201A or 201B.
Designed to develop basic conversational skills and to prepare for more advanced work in ITAL 314.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 310. Introduction to Analysis of Italian Literature (3)

Prerequisite: Upper division standing in Italian or equivalent.
Imparts literary terminology and the study of the primary genres in Italian literature through an analysis of exemplary texts. A brief overview of methodologies will also be introduced, i.e., structuralism, sociological, gender studies, formalism and deconstruction.

## 312A. Advanced Italian I (3)

Prerequisite: Upper division standing in Italian or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.

## 312B. Advanced Italian II (3)

Prerequisite: Upper division standing in Italian or equivalent.
Review of grammatical principles with regular exercises and composition work for development of increased mastery of written language.

## 314. Advanced Conversation (3)

Prerequisite: ITAL 214 or consent of the instructor.
Continuation of ITAL 214. More advanced use of spoken Italian to establish strong basis for correct and fluent proficiency in oral idiom.

## 335. Survey of Italian Literature I: Middle AgesEighteenth Century (3)

Prerequisites: Upper division standing in Italian or consent of instructor.
Introductory study of the most important Italian literary works, authors, and movements of Italian literature from the Middle Ages to the Eighteenth Century.

## 336. Survey of Italian Literature I: Nineteenth and Twentieth Centuries (3)

Prerequisites: Upper division standing in Italian or consent of instructor.
Introductory study of the most important Italian literary works, authors, and movements of Italian literature of the Nineteenth and Twentieth Centuries.

## 340. Italian Civilization (3)

Prerequisite: Upper division standing in Italian or consent of instructor.
Multidisciplinary study of Italian culture from unification (1861) to present, special emphasis on last thirty years. Crucial historical moments analyzed for social and cultural impact on Italian customs, and ways of thinking. Taught in Italian.

## 411. Advanced Syntax, Grammar, and Stylistics (3)

 Prerequisite: ITAL 312B.Provides an in depth study of Italian syntax in order to improve skills for written Italian. Vocabulary development and analysis and imitation of writing styles and forms will be emphasized.

## 414. History of the Italian Language (3)

Prerequisite: ITAL 312B.
Examines the main developments in the transformation from Latin to Italian, and the debates on what constitutes the Italian language (questione della lingua) 1200 - present, including the contributions of Dante Alighieri, Machiavelli, and Alessandro Manzoni.

## 440. Italian-American Culture (3)

Prerequisite: Upper division standing in Italian or consent of instructor.
Addresses issues of migration, cultural conflict, and ethnic identity formation I the context of the Italian American experience. Interdisciplinary in nature, the syllabus embraces such topics as labor exploitation, discrimination, women's roles, interethnic relations, religion, food, family, etc.

## 454. Italian Cinema (3)

Prerequisite: Senior standing or consent of instructor.
Overview of main movements and directors in the history of Italian cinema. Socio-political and aesthetic analysis will be adopted in reading films from the post-war period to the present.
Letter grade only (A-F). Same course as FEA 454.

## 462. Italian Women Writers (3)

Prerequisites: Upper division standing in Italian or consent of instructor.
Studies roles of women writers within history of Italian literature from Middle Ages through Renaissance to contemporary literature.

## 473. Masterpieces of Italian Renaissance Literature (3)

Prerequisites: ITAL 310, 335, 336 or consent of instructor. Readings in Italian Quattrocento and Cinquecento thought to explore the revolution toward the "new learning" and the valorization of human ability, worldly matters, and secular culture.

## 482 . The Building of the Italian Nation (3)

Prerequisities: Italian 310, 335, 336 or consent of instructor.
Explores literature that promoted creation and building of Italian nation from Middle Ages to present.

## 490. Special Topics in Italian (3)

Prerequisite: Upper division standing in Italian or consent of instructor.
Study of a particular topic or aspect of Italian literature, language or culture. Specific topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 12 units with different topics.

## 494. Internship in Italian (1-3)

Prerequisites: Consent of Instructor and department chair.
Field work in Italian, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directs by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in Italian.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor and department chair. Independent study under the supervision of a faculty member. May be repeated to a maximum of 6 units.

## JAPANESE

College of Liberal Arts
Department of Asian and Asian American Studies

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John N. Tsuchida
Vice Chair
Hsin-sheng C. Kao
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## Center

Center for Asian Pacific American Studies
Website
http://www.csulb.edu/dept/as
Faculty

## Professors

Arnold P. Kaminsky, Hiroko Kataoka, Hsin-sheng C. Kao, San-pao Li (Emeritus), Yoko Pusavat (Emeritus), John N. Tsuchida

## Associate Professors

Linda N. España-Maram, Tianwei Xie

## Assistant Professors

Masako O. Douglas, Atsuko Hayashi, Barbara W. Kim, Feng-Ying Ming, Dean S. Toji
Graduate Advisor
Hsin-sheng C. Kao
Undergraduate Advisor
Hsin-sheng C. Kao
Associate Faculty
Christine Bhat (Educational Psychology, Administration and Counseling), Jeffrey Broughton (Religious Studies), Kendall Brown (Art History), Pamela Bunte (Anthropology), Chi-Ah Chun (Psychology), Vincent Del Casino (Geography), Thamora Fishel (Anthropology), Frank Gossette (Geography), Lisa Grobar (Economics), Sarath Gunatilake (Health Science), Jack W. Hou (Economics), Tomotaka Ishimine (Economics), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), William Mulligan (Journalism), Kim Oanh Nguyen-Lam (CLMER), Alan T. Nishio (Public Policy), Eve Oishi (Women's Studies), Karen Quintiliani (Anthropology), Eugene Ruyle (Anthropology), George Scott (Anthropology), Sharon Sievers (History), Paul Tang (Philosophy), Teresa Wright (Political Science), R. Scott Wilson (Anthropology), and Teri Yamada (Comparative World Literature and Classics).
Administrative Support Coordinator
Yuriko Toma
Students desiring information should contact the department office for referral to one of the faculty advisors.

## Bachelor of Arts in Japanese (code A/STBA03) (120 units)

The Bachelor of Arts program in Japanese at CSULB is designed to provide students with linguistic and cultural preparation supported by international perspectives and understanding of humanities for personal, social, intellectual and cognitive development as well as development of skills for economic self-sufficiency in the ever-intertwining world of global economy. The degree is intended to produce graduates who will have the communicative proficiency, critical thinking skills, and a sociocultural understanding for effective intercultural communication. The program will provide students with an opportunity and preparation to pursue a career involving the Pacific Rim nations, to go on to post-baccalaureate programs in the fields such as international affairs, business, law, journalism, public administration, or education, and/or to obtain a single subject teaching credential in Japanese.

The program is different from a traditional literature-oriented language program. It emphasizes pragmatic language studies aiming for acquisition of communication skills through communication based instruction, and providing knowledge of language and culture to develop appropriate understanding and attitudes for intercultural communication. The program will be supported by a variety of discipline-specific courses as well as interdisciplinary courses in Anthropology, Art, Asian Studies, Asian American Studies, Business, Comparative Worldn Literature, Economics, Education, Geography, History, International Studies, Linguistics, Philosophy, Political Sciences, Religious Studies, Speech Communication, and other programs offering Japan-related topics.

## Planning a Program of Study

The student and undergraduate advisor should plan a coherent program that both fulfills the requirements of the major and covers the student's areas of interest in allied fields outside the Japanese language.

Students with background in Japanese language competency gained through home use or through primary or secondary school work in the U.S. or Japan must take a placement test administered by the department.

Students are encouraged to study in Japan, either through the CSU Study Abroad Program or independently, after completing at least two years of study (or its equivalent) of Japanese at CSULB.

## Residence Requirement for the Majors

At least five upper division courses required for the major must be completed successfully at CSULB. Students are encouraged, however, to complete up to a year of their language study in approved programs of study abroad.

## Requirements

A minimum of 44 units is required, including at least 15 units earned in residence at CSULB. JAPN 101 and 102 are prerequisite to the major and may be satisfied by appropriate
high school preparation or by examination. Required courses include 23 units core courses and 21 units electives from the following three areas; 1. language and language-related courses (12 units), 2. Japanese civilization courses (6 units), and 3. Japan-related or intercultural communication courses (3 units).
Lower Division Required Core Courses (8 units): JAPN 201, 202
Upper Division Required Courses ( 36 units):

1. Core Courses ( 15 units): JAPN 301, 302, 311, 312, 451 (in Japanese);
2. Electives (21 units):
A. Language and Language Related Courses - 12 units selected from: JAPN 350, 370, 385, 421, 422, 461, 462, 471, 481, 490, 492, 497;
B. Japanese Civilization (taught in English): 6 units selected from: ANTH 335, A/ST 393, AH 470A/B, HIST 383A, 383B, 384, 405, 406A, 407I, 409, POSC 363, R/ST 344;
C. Japan-Related or Intercultural Communication Courses - 3 units selected from: ANTH 307I, 412I, 413, 490*, ASAM 330, 345, A/ST 300I, 301I, 310, 320, 406A, 490*, 492, 495I, CWL 403, COMM 309, 330, ECON 372, EDSS 450F, GEOG 307I, H SC 420, HIST 382B, 406B, 478, 495*, I/ST 317I, 318I, 319I, 478, JOUR 312, PHIL 306, POSC 362, 363, 371, 378, 469*, 485*, 489, 497*, PSY 439, R/ST 341I, SOC 350, W/ST 401I, 406A.
*Special topics courses in departments which regularly offer topical courses pertinent to the program.

## Certificate in Japanese (code A/STCT03)

The Certificate Program in Japanese offers students an opportunity to develop spoken and written competency in modern Japanese, and to acquire a broad introduction to various aspects of traditional and modern Japan.

The program is designed for students who intend to pursue a career in the private or public sectors, for which knowledge of Japan and the command of the language is useful or necessary, and also for students who intend to pursue a graduate program in which such knowledge and competency are required.

## Requirements

1. A bachelor's degree (may be earned concurrently with the certificate);
2. 15 units of upper division level Japanese language courses;
3. 12 units of Japan-related upper division work from at least two disciplines. These units must be selected with the approval by a member of the advisory committee.

## Approved Courses

For Major in Asian Studies, Minor in Asian American Studies, Certificate in Asian Studies and Certificate in Asian American Studies:
A/ST 190, 290, 299, 300I, 301I, 310, 320, 393, 406AB, 441, 442, 443, 444, 490, 492, 495I, 499; ANTH 332, 333, 335,
*416, *417, *419, *490; AH 113A-B, 466, 467, 468, 469, 470A/B, 471, *497, 498; ASAM 200, 220, 260, 290, 299, 305, 310, 319, 330, 331, 332, 333, 334, 335I, 340, 345, 346, 347, 352, 360, 370, 380, 381, 401, 410, 490, 495, 499; CWL 334,

336, 350, 403, 415I, *448, *499; CHIN 101, 102, 201, 202, 250, 260, 301, 302, 321, 350, 360, 370, 380, 390, 410, 430ABC, 451, 490, 492, 499; ECON *490; ENGL 375; GEOG 120, 314I, *326, *494, *497; HIST 381, 382A-B, 383A-B, 384, 385, 386, 401I, 405, 406AB, 407I, 409, 488, *495, *498; I/ST *317I, *318I, *319I; JAPN 101, 102, 201, 202, 311, 312, 350, 370, 421, 422, 451, 461, 462, 471, 481, 490, 492, 497; PHIL 306, *499; POSC 362, 363, 364, 366, 455, 469*, 485*, *489, *497, *499; R/ST 103, 331I, 341I, 343, 344, 351, 352, 353I, *490, *499; W/ST 318I, 319, 381, 401I, 406AB, *490, *499.
( $^{*}$ ) on an approved Asia-related topic.

## Single Subject Credential in Japanese (code 155)

The Japanese subject matter credential program at CSU Long Beach is designed to provide students with linguistic and cultural preparation and understanding of humanities for personal, social, intellectual and cognitive development as well as development of skills for economic self-sufficiency in the ever-intertwining world of global economy. It is intended to produce educators prepared in teaching Japanese with the communication proficiency, critical thinking skills, and sociocultural understanding essential for effective intercultural communication as well as pedagogical knowledge and training in teaching Japanese to diverse populations in our society.

The program requires a minimum of 30 semester units of upper division courses in Japanese as listed below under the four subject categories: Language, Linguistics, Culture, and Literature. Students should take 21 units of core courses and 9 units of electives. All upper division courses are conducted in the target language and require completion or equivalent of the four semesters of lower division Japanese language courses.

All upper division language courses are designed to develop competency in four skills and content. However, JAPN 311 and 312 emphasize spoken Japanese at advanced level, while JAPN 301 and 302 emphasize reading and writing at advanced level. The content courses represent three areas of study Japanese culture, linguistics, and literature. The culture courses provide an overview of Japanese history from the prehistoric times to contemporary Japan, and an insight into Japanese culture and society. The linguistics courses introduce the sound, meaning, syntactic and discourse structure of language, and offer a comparison of Japanese and English as well as other languages. The literature course introduces selected major literary works, which will provide sources to cultivate literary appreciation and to develop cultural understanding of Japan.

A grade of " $C$ " or better is required in all courses accepted for the Japanese program. The exit requirement is "Advanced" level Japanese language proficiency.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective teachers of Japanese are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject)
for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the Japanese Education Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

The Japanese Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Core Requirements

24 upper division units selected from the following areas:

1. Language: JAPN 301, 302, 311, 312;
2. Linguistics: JAPN 461;
3. Literature: JAPN 471 plus 421 or 370 ;
4. Culture: JAPN 451.

Electives: a total of 6 units selected from at least two
different areas in consultation with a program advisor based
on the student's background, interest, and teaching plans.
Language: JAPN 421, 422;
Linguistics: JAPN 462, 481;
Literature: JAPN 370;
Culture: JAPN 350; 492;
Variable Subjects: JAPN 490; 497.

## Courses (JAPN)

## LOWER DIVISION

## 101. Fundamentals of Japanese (4)

Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for JAPN 101.
Introduction to pronunciation, reading, writing, conversation, and structure of the Japanese language.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 102. Fundamentals of Japanese (4)

Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for advanced study in Japanese
Introduction to pronunciation, reading, writing, conversation, and structure of the Japanese language.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 201. Intermediate Japanese (4)

Prerequisites: Completion of GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
Continuation of first year Japanese. Further development of listening, speaking, reading, writing, and communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 202. Intermediate Japanese (4)

Prerequisites: Completion of GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
Continuation of first year Japanese. Further development of listening, speaking, reading, writing, and communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 301. Advanced Japanese (3)

Prerequisites: JAPN 202 or its equivalent as determined by the instructor.
Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 302. Advanced Japanese (3)

Prerequisites: JAPN 301 or its equivalent as determined by the instructor.
Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 311. Advanced Spoken Japanese (3)

Prerequisites: JAPN 202 or its equivalent as determined by the instructor.
Advanced study in modern spoken Japanese and Japanese communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.
312. Advanced Spoken Japanese (3)

Prerequisites: JAPN 311 or its equivalent as determined by the instructor.
Advanced study in modern spoken Japanese and Japanese communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

## 350. Japanese Language, Culture, and Communication

 (3)Study of Japanese language and culture through sociolinguistic perspectives. Exploration of the interrelationship between the language and culture by focusing on verbal and nonverbal communicative behaviors.

Letter grade only (A-F).

## 370. Japanese Literature in English Translation (3)

Readings in translation of representative works of major literary genres in Japan covering both the classical and modern periods. Previous knowledge of the language is highly desirable, but not necessary.
(Lecture-discussion 3 hours.)

## 385. Japanese Language and Culture for Heritage Learners (3)

Prerequisite: By consent of instructor or a placement test.
Designed to address the particular needs of students of Japanese as a heritage language, the course emphasizes individual learning to improve formal use of the language in listening, speaking, reading and writing, and cultural knowledge.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F)
421./521. Selected Readings/ Writing in Japanese (3)

Prerequisites: JAPN 302 or consent of instructor.
Readings from a selection of contemporary materials including literary works, magazines, newspapers, instructional and technical materials.

Undergraduates register in JAPN 421; graduates register in JAPN 521. May be repeated to a total of 9 units with different topics. (Lecture)

## 422./522. Technical Japanese (3)

Prerequisites: JAPN 421 or equivalent.
Development of receptive and productive skills using authenthic materials drawn from business, humanities, sciences, and others that will be selected according to students' interest.
Undergraduates register in JAPN 422; graduates register in JAPN 522. (Lecture) Letter grade only (A-F).

## 451./551. Japanese Civilization (3)

Prerequisites: JAPN 302 or equivalent.
Introduction and exploration of characteristic features of Japanese civilization and culture through studying selected topics and themes in fields such as arts, humanities, sciences, and social sciences.
Udergraduates register in JAPN 451; graduates register in JAPN 551. (Lecture)
461./561. The Structure of the Japanese Language (3) Prerequisites: JAPN 302 or equivalent.
Introduction to phonology, morphology, syntax, semantics and discourse of modern Japanese.
Undergraduates register in JAPN 461; graduates register in JAPN 561. (Lecture) Letter grade only (A-F).
462./562. Contrastive Analysis of English and Japanese (3)

Prerequisites: JAPN 302 or equivalent.
Contrastive analysis of phonological, morphological, syntactic and discourse aspects of English and Japanese.
Undergraduates register in JAPN 462; graduates register in JAPN 562. (Lecture) Letter grade only (A-F).

## 471. Readings in Modern and Contemporary Japanese Literature (3)

Prerequisites: JAPN 302 or equivalent.
Readings of representative works of modern and contemporary Japanese literature including short stories, novellas, diaries, memoirs, poetry, and excerpts from novels and plays.
(Lecture) Letter grade only (A-F).

## 481./581. Principles and Practice of Teaching Japanese

 (3)Prerequisites: JAPN 302, 312, 350, and at least one 400-level course, or equivalents.
Introduces Japanese language pedagogy in the U.S. with principles of second language acquisition, and explore linguistic/ pedagogical/sociocultural issues.
Letter grade only (A-F). Undergraduates register in JAPN 481; graduates register in JAPN 581.

## 490. Special Topics in Japanese (3)

Prerequisite: Consent of instructor.
Select topics related to advanced Japanese study.
May be repeated to a maximum of 6 units with different topics
492./592. Japanese Internship (3-6)

Prerequisites: Consent of instructor; completion of a minimum of 15 upper division units required for the major in Japanese.
Field work in Japanese under joint direction of activity sponsor and faculty.
Undergraduates register in JAPN 492; graduates register in JAPN
592. Credit/No Credit grading only.

## 497. Directed Studies (1-6)

Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.

## GRADUATE LEVEL

## 521./421. Selected Readings/ Writing in Japanese (3)

Prerequisites: JAPN 302 or consent of instructor.
Readings from a selection of contemporary materials including literary works, magazines, newspapers, instructional and technical materials.
Undergraduates register in JAPN 421; graduates register in JAPN 521. (Lecture) May be repeated to a total of 9 units with different topics.

## 522./422. Technical Japanese (3)

Prerequisites: JAPN 421 or equivalent.
Development of receptive and productive skills using authenthic materials drawn from business, humanities, sciences, and others that will be selected according to students' interest.
Undergraduates register in JAPN 422; graduates register in JAPN 522. (Lecture) Letter grade only (A-F).
551./451. Japanese Civilization (3)

Prerequisites: JAPN 302 or equivalent.
Introduction and exploration of characteristic features of Japanese civilization and culture through studying selected topics and themes in fields such as arts, humanities, sciences, and social sciences.
Undergraduates register in JAPN 451; graduates register in JAPN 551. (Lecture)
561./461. The Structure of the Japanese Language (3) Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 461; graduates register in JAPN 561. Lecture.
Introduction to phonology, morphology, syntax, semantics and discourse of modern Japanese. Undergraduates register in JAPN 461; graduates register in JAPN 561. (Lecture.)

## 562./462. Contrastive Analysis of English and Japanese (3)

Prerequisites: JAPN 302 or equivalent.
Contrastive analysis of phonological, morphological, syntactic and discourse aspects of English and Japanese.
Undergraduates register in JAPN 462; graduates register in JAPN 562. (Lecture) Letter grade only (A-F).

## 581./481. Principles and Practice of Teaching Japanese (3)

Prerequisites: JAPN 302, 312, 350, and at least one 400 level course, or equivalents.
Introduces Japanese language pedagogy in the U.S. with principles of second language acquisition, and explore linguistic/pedagogical/ sociocultural issues.
Undergraduates register in JAPN 481; graduates register in JAPN 581. Letter grade only (A-F).

## 592./492. Japanese Internship (3-6)

Prerequisites: Consent of instructor; completion of a minimum of 15 upper division units required for the major in Japanese.
Field work in Japanese under joint direction of activity sponsor and faculty.
Undergraduates register in JAPN 492; graduates register in JAPN
592. Credit/No Credit grading only.
695. Directed Readings (1-3)

Prerequisites: Consent of Graduate Advisor.
Readings in Japanese on an individual basis.
Letter grade only (A-F).
697. Directed Research (1-3)

Prerequisites: Consent of Graduate Advisor.
Research in Japanese on an individual basis.
Letter grade only (A-F).

## JEWISH STUDIES <br> College of Liberal Arts

## Director

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Jewish Studies Faculty
Hour Berberian (History), Jeffrey Blutinger (History), Carl Fisher (Comparative Literature and Classics), Yechiel Goldberg (Religious Studies), Arlene Lazarowitz (History), Amit Schitai (Hebrew), Donald Schwartz (History), Sherry Vatter (History)

## Bachelor of Arts in Modern Jewish Studies (code COLABA01)

The Consortial Bachelor of Arts in Modern Jewish Studies is an interdisciplinary major that consists of courses in a variety of disciplines, including literature, history, religion, geography, Hebrew Language, and politics. It will be taught in residence at CSULB when courses are available. When CSULB does not offer courses, they will be supplemented by a variety of distance-learning modalities offered through other CSU campuses.

Students will gain an understanding of Jewish civilizations as the result of interactions of Jewish culture, history, and religion within both societies where Jews have been the dominant majority (the first two Jewish commonwealths and modern Israel) and the minority. Students will explore the constants and diversity of the Jewish experience in different eras and geographical settings. They will be able to define the parameters of the Diaspora and its significance on both Jewish and nonJewish life. They will understand the significant Jewish beliefs, ethics, philosophies, and religious texts. Students will comprehend the place and role of Israel and Zionism in Jewish life, politics, culture, and religion. They will understand the history of the Holocaust/Shoah and its impact on both the Jewish and non-Jewish worldviews. Students will also gain a basic comprehension of and proficiency in Hebrew.

Requirements (minimum of 43 units)
Core (minimum of 37 units)
Introductory course (3 units) being developed;
Language (4 units) HEBW 101A, 101B,
Culture and Society (9 units) CWL 342, 344, course from other CSU campuses;
History area (9 units) chosen from HIST 304, 369, 431, 432;
Religion and Thought (9 units) R/ST 311, 314, 315I;
Capstone course (3 units);
Senior Seminar being developed.

## Elective Requirements

Electives (6 units) chosen from GEOG 309I, POSC 367, additional course from other CSU campuses.

## Minor in Jewish Studies (code HISTUM02)

The Minor in Jewish Studies consists of a minimum of 19 units. Jewish Studies encourages undergraduate students to acquire the academic breadth and depth to comprehend the major issues, themes, and concepts of a culture and heritage that has had a distinct impact on world civilization. The interdisciplinary minor consists of courses in a variety of disciplines, including literature, history, religion, geography, Hebrew language, and politics. Students will expand their understanding of the broader dynamics of the Jewish experience through different eras and geographic settings, both in Israel and the Diaspora.

## Requirements

1. Required core courses: HEBW 101A, HIST 369, R/ST 314;
2. Three units from the following elective courses: CWL 342, HIST 431, R/ST 311;
3. Six units from the following elective courses: GEOG 309I; HIST 304, 432, 389; POSC 367; R/ST 315.

## Hebrew Courses (HEBW)

## 101A. Modern Hebrew (4)

Prerequisite or corequisite: Any Foundation course.
Designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

## 101B. Modern Hebrew (4)

Prerequisite or corequisite: HEBW 101A. Corequisite: Any Foundation Course.
Continuation of HEBW 101A, designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

Department Chair<br>William A. Babcock<br>Office<br>Social Sciences and Public Affairs (SS/PA) Room 024<br>Telephone<br>(562) 985-4981<br>Faculty<br>Professors<br>William A. Babcock, William A. Mulligan, Emma Daugherty Phillingane<br>Associate Professor<br>Mathew Cabot, Raul Reis<br>Assistant Professors<br>Christopher Burnett, Jennifer Fleming, Christopher Karadjov, Carla Yarbrough

The Department of Journalism offers undergraduate curricula in journalism and public relations. The Bachelor of Arts in Journalism is intended to educate for beginning competency and continued professional growth and achievement.

The Department of Journalism's curriculum embraces the current best practices in journalism education, including media convergence and the ability of advisers and students to craft meaningful, individualized programs. The departmental program is offered in a context of a broad liberal education that emphasizes liberal arts and sciences. These traditional areas remain the solid basis of professional education in journalism and mass communication here and elsewhere. The Department of Journalism is an institutional member of the Association of Schools of Journalism and Mass Communication.

Courses in the department prepare students to be newspaper or magazine writers, reporters and editors; photojournalists; internet, radio or television reporters and editors; and public relations practitioners in corporate, agency and public sectors of the economy.

Students should get in touch with the Department of Journalism office for referral to an appropriate faculty adviser for developing a study plan.

The Department of Journalism houses the campus newspaper, the Daily Forty-Niner, which serves a campus community of more than 33,000 students, the university faculty and staff and other constituencies. Also housed in the Department of Journalism are Dig magazine, Online Forty-Niner, Dig Online, and Summer Forty-Niner.

Broadcast journalism students work at KKJZ-FM 88, which is heard throughout southern Los Angeles County and northern Orange County. Students also work with Advanced Media Productions to produce a weekly cable television program. Advanced students are strongly encouraged to participate in the Department of Journalism's internship program. Within the limits of its resources, the department helps graduating seniors and alumni find professional positions.

## Bachelor of Arts in Journalism (code JOURBA08) (120 units)

## General Requirements

Computer Prerequisites to Entering Journalism Classes: All students entering journalism production classes must be familiar with at least one established word-processing program at the level of at least 40 words per minute.
Professional Skills: JOUR 120 and 311 are the basic writing and reporting courses for journalism, and are prerequisites for most upper-division skills courses in the department.
Residency Requirements: Transfer students must complete at least 50 percent of their upper-division journalism units at CSULB. Journalism courses taken on another campus may not be substituted for CSULB journalism courses without the approval of the CSULB Department of Journalism.
Distribution of Units: Journalism majors may apply no more than 40 units of journalism courses toward the 120 units required for the degree of Bachelor of Arts. A minimum of 65 units must be in the traditional liberal arts and sciences - courses offered by the Colleges of Liberal Arts and the College of Natural Sciences and Mathematics.
With a minimum of 65 units of liberal arts, Journalism majors may elect up to 15 units outside journalism and liberal arts and sciences in courses that fall into other categories. Often these are in areas such as business, the arts or health. No more than 15 units in such areas may count toward the 120 units required for graduation. Students should meet with a journalism adviser before declaring the major, the minor or a minor concentration.

Journalism majors are required to have a minor or a minor concentration. Each CSULB department defines its own minor, and these vary between 18 and 24 units. The minor concentration is composed of 15 units, usually two lowerdivision and three upper-division courses, and it is selected in consultation with a journalism adviser.

Students interested in pursuing the Single-Subject Credential in English/Journalism should consult the teaching credential adviser in the Department of English.

## Specific Requirements

This degree program requires a minimum of 33 and a maximum of 40 units in the major, of which six are lower division and 27 to 33 are upper division.

Lower Division: JOUR 110 and 120.
Upper Division: JOUR 311, 430, 431, 495, two courses chosen from among 312I, 315, 370, 412, 415, 418 and 494 and three courses chosen from among 300, 305, 316, 320, 321, 331, 340, 374, 380, 382, 420, 422, 424, 440, 471, 478, 480 and 482. In addition, students may take up to five additional units chosen from either of the preceding two lists and/or JOUR 490, 498 and 499.

In addition to the "C" average in the overall major and the "C" average in the upper division major at CSULB, both of which are required by the University, journalism majors must earn a "C" or better in each of these core courses: JOUR 110, 120, 311, 430, 431 and 495.

## Minor in Journalism (code JOURUM01)

A minimum of 21 units including: JOUR 110, 120, 311, 430 and 431.

## Courses (JOUR)

## LOWER DIVISION

## 110. Introduction to Mass Communications (3)

Prerequisites/Corequisites: One GE Foundation Course. Origins, development and contemporary role of newspapers, magazines, radio, television, books, new media and films, and such related fields as advertising and public relations.
(Lec, discussion 3 hrs.) (CAN JOUR 4)

## 120. Writing Across the Media (3)

Provides introductory overview on writing techniques used in the print media, in broadcast media, in online media and in preparation of materials for media professionals by public relations practitioners. Focus is on writing news stories and meeting deadlines.

A grade of ' $C$ ' or better is needed to pass this course. Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours. (CAN JOUR 2)

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. Beginning Photojournalism (3)

Prerequisites: JOUR 311 with a grade of " C " or better.
Techniques of photojournalism for newspapers, magazines, corporate communications, new media and public relations. Course covers types of photos needed for all aspects of editorial photography, including lighting, use of filters, working with subjects and the photo picture page.
\$50 materials fee for those using university supplies. Letter grade only (A-F).

## 305. Media Design (3)

Prerequisites: JOUR 311 with a grade of " C " or better.
Gives students experience in design of printed and online materials. Examines theories, principles and techniques of contemporary media design. Covers historical roots of media design and acquaints students with use of photographs, illustrations, graphs, type and color in visual communication. Letter grade only (A-F).

## 311. Reporting and Information Gathering (3)

Prerequisites: JOUR 120 with a grade of "C" or better.
Teaches students to report, gather, process and transform messages. Involves seeking sources in libraries, public records, books, magazines, journals, corporate reports, computer databases and personal interviews.
Letter grade only (A-F).

## 312I. Global News Media (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses and upper-division standing.
Analysis of world's news media with an emphasis on structure, ownership, social and political roles and the degree of government pressure and control. Particular attention paid to economic, political and mass media globalization and its effects on developing countries.
Letter grade only (A-F).

## 315. Journalism as Literature (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing.
Set criteria for defining journalism and literature. Examines great journalistic work of the last 2,000 years, from Plato and Caesar to Addison, Steele and Swift, through Twain, Crane, Mencken and Camus, to E. B. White, Updike, Didion and Tom Wolfe.

## 316. Feature Writing (3)

Prerequisites: JOUR 311 with a grade of " C " or better.
Covers the feature article for newspapers, magazines and online media. Discusses style, organization, human interest, use of quotes, leads and article ideas. Emphasis is on clear readable prose.
Letter grade only (A-F).

## 319A. News Reporting (3)

Focuses on news reporting and writing, including study of different types of stories. Students work as staff writers on Daily Forty-Niner or University Magazine.
May not be taken concurrently with JOUR 319B or JOUR 422. Letter grade only (A-F).

## 319B. Advanced Publication Writing and Reporting (3)

Focuses on news reporting and writing, including study of different types of stories. Students work as staff writers on Daily Forty-Niner or University Magazine.
May not be taken concurrently with JOUR 319A or JOUR 422. (Activity/Laboratory 9 hours) Letter grade only (A-F).

## 320. Reporting Public Affairs (3)

Prerequisite: JOUR 311 with a grade of " C " or better.
News coverage of police, courts and city, county, state and federal government. Study and practice in methods of investigative reporting.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.
321. Introduction to Broadcast Writing (3)

Prerequisite: JOUR 311 with a grade of " C " or better.
Techniques for information gathering, scripting, selecting video and choosing sound bites for news and feature stories.
Letter grade only (A-F). Lecture two hours, Laboratory 2 hours.)
324A,B. Photography for Publication $(3,3)$
Prerequisites: JOUR 120 and 300 (with a grade of " B " or better), or consent of instructor.
Students with qualifying photo skills will comprise staff of the Daily Forty-Niner newspaper and University Magazine. Staffers will be responsible for photographic coverage of campus news and feature events for daily and special edition use. Photographers will practice techniques of newspaper photography through assigned stories as well as personally developed enterprise stories. Individual approach and skills are assessed daily, with staff efforts analyzed at weekly photo conference. Students must provide own camera.
Course fee may be required. (Laboratory 6 hours)
325. Radio News Writing and Reporting (3)

Prerequisites: JOUR120 with a grade of " C " or better or consent of instructor.
Techniques for information gathering, scripting, and selecting actualities for news and feature stories. Emphasis is on radio news writing.

## 331. Publication Editing and Makeup (3)

Prerequisite: JOUR 311 with a grade of "C" or better.
Study of methods in newspaper, magazine and online production and practice in preparing copy for publication, including editing, proofreading, headline writing, using photographs and other
display materials, handling news service copy and basic page design.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 340. Introduction to Online Journalism (3)

Prerequisite: JOUR 311 with a grade of "C" or better.
An introduction into the Internet and World Wide Web from the perspective of online journalism. Course provides an introduction to the basics of online publishing and writing. Students work with the tools and technologies to create their own websites and write content for the online environment.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 370. Principles of Public Relations (3)

Public relations fundamentals: research, planning, communication and evaluation. Study of targeting special publics, the use of public relations tools, developing public relations programs and the importance of social responsibility.
Letter grade only (A-F).

## 374. Written Communication for Public Relations (3)

Prerequisite: JOUR 311 with a grade of " C " or better, 370 .
Students learn to write a wide variety of internal public relations materials, including backgrounders, position papers, proposals, letters, memos, speeches and crisis communication plans. Students develop a crisis communication plan for a nonprofit organization as a service-learning project.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 375. External Communication for Public Relations (3)

## Prerequisites: JOUR 120 and 370.

Students are exposed to the various techniques used in media relations and learn to write news releases, feature stories, media alerts, pitch letters, biographies, op-ed pieces, captions, and public service announcements. Students develop a comprehensive press kit for a nonprofit organization as a service-learning project.

## 376. Publications for Public Relations (3)

Prerequisites: JOUR 120 and 370.
Theories and principles of layout and design and most effective writing techniques for array of publications. Develop newsletters, brochures, corporate identification systems, advertisements, fliers, and online materials. All publications are created electronically, using various desktop-publishing programs. Develop a brochure and newsletter for nonprofit organization as service-learning projects.
Letter grade only (A-F).

## 380. Advanced Photojournalism (3)

Prerequisite: JOUR 311 with a grade of " C " or better, 300 .
Photographic reporting with a camera. In-depth study of photojournalism with emphasis on creation of photo story ideas, photo essays and feature photos; photo editing and layout as applied to newspapers, magazines and online media.
Course fee may be required. Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 382. Radio News Production (3)

Prerequisite: JOUR 311 with a grade of " C " or better, 321.
Reporting, writing and editing news and feature stories for radio news program. Special emphasis is on radio production techniques.
Letter-grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 412. Theories of Mass Communication (3)

Prerequisites: JOUR 110 or consent of instructor.
Contemporary theories of mass communication. Overview of development of communication theory as it relates to mass media. Evaluation of theories of communication process through analysis of original research upon which theories were founded. Source, message and audience effects of communication process. Letter grade only (A-F).

## 415. Minorities and the Media (3)

Analysis of the issues pertaining to minorities (ethnic, racial, national origin, gender, sexuality, physical, age and mental ability) and how they intersect with the mass media.
Letter grade only (A-F).

## 418. Media History (3)

Overview of development of the mass media in United States and around the world. Major media figures, trends and industries are examined. Examines how individuals' interpretations of past historical events affect their sense of the present and what should occur in the future.
Letter grade only (A-F).

## 420. Investigative Reporting (3)

Prerequisite: JOUR 311 with a grade of "C" or better.
Students work in an editor-reporter relationship with instructor in researching and writing in-depth pieces on such complex issues as mass transit, air pollution, city government, poverty, crime, housing and drug abuse. Computer-assisted research and investigative and interviewing techniques stressed.
Letter-grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 422. Senior Media Production (1)

Prerequisite: JOUR 120 and consent of Instructor.
Advanced work on Forty-Niner Publications as editors.
Credit/No Credit grading only. May be repeated for a maximum of 3 units in different semesters with consent of instructor.

## 424. Computer Assisted Reporting (3)

Prerequisite: JOUR 311 with a grade of "C" or better, 340.
Advanced techniques of new media research stressed.
Development of skills in document retrieval and analysis discussed, with emphasis on publication of in-depth pieces.
Letter grade only (A-F).
430. Law of Mass Communications (3)

Prerequisite: Junior or senior status.
Principles and case studies of law of the press, radio ,television, advertising, public relations and new media with emphasis on constitutional guarantees, prior restraints, libel, contempt, privacy, taxation, licensing, shield laws, free press vs. fair trial, copyright and other laws affecting the mass media.
A grade of 'C' or better is needed to pass this course. Letter grade only (A-F).

## 431. Mass Media Ethics (3)

Prerequisite: Junior or Senior Status.
Study of ethical codes and value systems used in writing, producing and presenting news in the United States. Philosophical foundations of moral theory and various approaches to ethical decisionmaking for journalists and other media practitioners.
A grade of ' $C$ ' or better is needed to pass this course. Letter grade only (A-F).

## 440. Writing for the Web (3)

Prerequisite: JOUR 311 with a grade of "C" or better, 340.
Understanding online journalism and tools and technologies necessary for online publication. Students develop skills in computer-assisted reporting methods to conduct online journalistic research. Students publish work on class website and other professional venues.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 471. Public Relations Management and Campaigns (3)

Prerequisite: JOUR 311 with a grade of "C" or better, 370.
Students work in agency situation to develop a business proposal for client involving a formal written plan and oral presentation. Students serve as consultants and develop programs for a nonprofit organization as a service-learning project.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 478. Public Relations Case Studies (3)

Prerequisite: JOUR 311 with a grade of " C " or better, 370 .
Case studies used to acquaint students with problems encountered when working in profit and nonprofit sectors. Emphasis placed on analytic planning, critical thinking and programmatic skills. Students develop research study examining a public relations issue in-depth.

## 480. Advanced Media Graphics and Photo Editing (3)

Prerequisite: JOUR 311 with a grade of " C " or better, 305.
Principles of graphics and picture selection for newspaper, magazine and online media. Emphasis on preparing material -written and visual -- for use as single picture or layout presentation.
Course fee required. Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.

## 482. Television News Production (3)

Prerequisite: JOUR 311 with a grade of "C" or better, 321 .
Scripting, voicing, shooting and editing news and feature stories for cablecast student program. Special emphasis on videography and editing.
Letter grade only (A-F). Lecture 2 hours, Laboratory 2 hours.
490. Special Topics in Mass Communications (1-3)

Prerequisite: JOUR 311 with a grade of "C" or better.
Topics of special interest in mass communications selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units.
494. Research Methods in Mass Communications (3)

Prerequisite: Consent of instructor.
Basic techniques of research in mass communications and mass media. Overview of theory building and hypothesis testing procedures as applicable to current problems in the mass communication field. Scientific methods, survey and experimental design, field studies, analysis of data.
Letter grade only (A-F).

## 495. Senior Seminar (3)

Prerequisite: JOUR 311 with a grade of " C " or better, senior status.
Analysis of issues and problems in journalism and mass communications. Examines theoretical and applied issues related to the media. Discussion topics may include international communication, copyright, social responsibility, ethics, free speech and journalism history, among others.
A grade of ' $C$ ' or better is needed to pass this course. Letter grade only (A-F).

## 498. Internship (3)

Prerequisite: JOUR 311 with a grade of "C" or better, Junior or senior status.
Work of an editorial or writing nature at least 10 hours a week with journalism or PR organization in the Los Angeles-Orange County area. Work edited and evaluated by on-site supervisors. Regular reports to faculty supervisor and meetings with supervisor. Credit/No Credit grading only.

## 499. Special Projects (1-3)

Prerequisite: Open to journalism major only.
Advance approval of instructor; (permit required to enroll). Research in the field of journalism in broadcast, newspaper, magazine, public relations, advertising, new media or other related fields. Students must meet once a week with instructor.
May be repeated to a maximum of 6 units with different topics.

## KINESIOLOGY

College of Health and Human Services

Department Co-Chairs<br>Keith W. Freesemann<br>Sharon R. Guthrie<br>\section*{Department Office}<br>Health and Human Services (HHS) 2, Room 105<br>Telephone<br>(562) 985-4051<br>\section*{Website}<br>http://www.csulb.edu/kinesiology<br>\section*{Faculty}<br>\section*{Professors}

D. Margaret Costa, James A. Davis, Janet M. Fisher, John J. Garhammer (Emeritus), John F. Gonsalves (Emeritus), Dixie A. Grimmett (Emeritus), Sharon R. Guthrie, Karen L. Hakim-Butt, Grant M. Hill, Michael G. Lacourse, Barry W. Lavay, Clayre K. Petray, Ralph Rozenek, William A. Sinclair (Emeritus), Douglas E. Young

## Associate Professors

Ketra L. Armstrong, Keith W. Freesemann, Mary Ellen Leach (Emeritus), Jan M. Schroeder, Emyr W. Williams, Alison M. Wrynn

## Assistant Professors

Jill A. Crussemeyer, Daniel W. Jones, Paul J. Krawietz, Jeff L. Kress, T. Michelle Magyar

## Department Coordinator

Stacia Ticer

The mission of the Department of Kinesiology is to facilitate wellness among individuals through the study and application of human movement principles across the lifespan and through the management of and participation in physical activity, exercise, and sport. This is accomplished by providing excellence in instruction, scholarship, and service through a multidisciplinary approach including: 1) programs at the undergraduate and graduate levels designed to prepare professionals in human movement, sport, and exercise-related careers; 2) courses that promote general education and interdisciplinary concepts; 3) activity courses and programs designed to induce physical, cognitive, and affective adaptations; and 4) specialized service programs for the community.

The Department's programs offer a course of study for students wishing to prepare for professional careers or related disciplines in physical education teaching (Adapted, Elementary, and Secondary), athletic training, fitness-wellness, exercise science, kinesiotherapy, sport psychology and coaching. The programs have been developed from physiological, psychological, biomechancal, and sociological principles. The Department also serves the needs of students completing majors in other fields who find that certain aspects of kinesiology and physical
education are important to their professional objectives and personal interests. In meeting the educational needs of these students, the Degrees, Certificates, and Minor available in the Department of Kinesiology include:

- Bachelor of Arts in Kinesiology in three options.
- Bachelor of Science in Kinesiology in five options.
- Master of Arts in Kinesiology in seven options.
- Master of Science in Kinesiology in three options.
- California Single Subject Preliminary Teaching Credential Programs in Physical Education (K-12)
- Adapted Physical Education Specialist Credential (K-12)
- Minor in Physical Education: Single Subject Credential Add-on


## - Wilderness Studies Certificate

- Kinesiotherapy Certificate

The Department of Kinesiology, in addition to its Degrees, Certificates, and Minor, assumes the responsibility for the psychological, physiological, and sociological needs and interest of the college student through general education, interdisciplinary, and physical activity course offerings. Students enrolling in physical education activity courses assume responsibility for satisfactory health status appropriate to the class activity.

In addition to the degree requirements for the Bachelor of Arts in Kinesiology and the Bachelor of Science in Kinesiology, the Major must meet the following Department policies and requirements for University graduation:

1. Each major course and prerequisite course must be completed with a grade of " C " or better. A course in which a grade lower than a "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite;
2. Upper-division courses may not be waived by substitution or examination without Department petition and approval;
3. Current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent);
4. Department approval;
5. Bachelor degree Majors must also have Department clearance of lower division courses/activities and skill proficiencies.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Kinesiology

Students pursing a Bachelor of Arts degree in Kinesiology must complete lower division and upper division core courses and skill proficiency requirements plus courses in a specific area (Option). Students may select their area of
specialization from one of the three Options described below. In meeting the requirements of this degree, the Department offers three specialized Options for study which permit students to develop a conceptual understanding related to human movement and to focus on preparation for one or more specific occupations. The student must demonstrate 1) physical skill proficiency, 2) knowledge of physical fitness, and 3) knowledge in the personal performance activity courses completed according to the lower division core requirements for specific Options prior to graduation. A minimum of 120 units are required for graduation.

## Physical Skill Proficiency

Each Bachelor of Arts Major is required to demonstrate physical skill proficiency at a 3.5 (1-5 scale) overall average level in fitness (KIN 263 or 343) and the personal performance activity courses required in each Option prior to graduation. Physical skill proficiency examinations are administered in the appropriate personal performance activity courses. Only physical skill proficiency scores in the range of a 2.0-5.0 are recorded and computed to determine a student's physical skill proficiency average.

## Option in Adapted Physical Education (code KPE_BA02) (120 units)

This option is designed for the preparation of students seeking a California Single Subject Preliminary Teaching Credential in Physical Education (K-12) with a specialist credential in adapted physical education. The emphasis is placed upon teaching public school physical education to students with disabilities in preschool through grade 12. The academic and professional course work is designed to provide students with philosophical, theoretical and applied concepts of teaching adapted physical education.

Lower Division: BIOL 207, 208; PSY 100; KIN 149A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 268, 270; Select one course from 237, 238.

Upper Division: KIN 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 387, 388, 427, 460.

A fieldwork, field experience or internship course requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

Completion of this option meets Commission on Teacher Credentialing requirements for subject matter competence for the Single Subject Credential in Physical Education. In addition to subject matter competence, prospective teachers must complete professional preparation through the Single Subject Credential Program. Refer to the Single Subject Teacher Education section of the Catalog for details. Note: The Option in Adapted Physical Education is being revised to meet new state standards for subject matter competence for physical education teachers. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements for the Option in Adapted Physical Education will be in effect and supersede current requirements.

## Option in Elementary School Physical Education (code KPE_BA03) (120 units)

This option is designed for the preparation of students seeking a California Single Subject Preliminary Teaching Credential in Physical Education (K-12). The emphasis is placed upon teaching public school physical education to students in grades K through 6 . The academic and professional course work is designed to provide students with philosophical, theoretical and applied concepts of teaching elementary school physical education.

Completion of this option meets the subject matter competence requirement for the Single Subject Preliminary Credential in Physical Education (code 175). In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Physical Education teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Physical Education Advisor early to plan their program.

The Physical Education Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: BIOL 207, 208; PSY 100; KIN 149A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 268, 270; Select one course from 237, 238.

Upper Division: KIN 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 460, 477, 483, NUTR 430.

A fieldwork, field experience or internship course requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Option in Secondary School Physical Education (code KPE_BA04) (120 units)

This option is designed for the preparation of students seeking a California Single Subject Preliminary Teaching Credential in Physical Education (K-12). The emphasis is placed upon teaching public school physical education to students in grades 6 through 12. The academic and professional course work is designed to provide students
with philosophical, theoretical and applied concepts of teaching secondary school physical education.

Completion of this option meets the subject matter competence requirement for the Single Subject Preliminary Credential in Physical Education (code 175). In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Physical Education teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Physical Education Advisor early to plan their program.

The Physical Education Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower Division: BIOL 207, 208; PSY 100; KIN 149A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 268, 270; Select one course from 237, 238.

Upper Division: KIN 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 457, 460, 461, 483.

A fieldwork, field experience or internship course requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Bachelor of Science in Kinesiology

Students pursuing the Bachelor of Science degree in Kinesiology must complete the course requirements and the physical fitness proficiency of each Option. Students may select their area of specialization from the Options described below. These Options develop a student who has an integrated conceptual understanding of the discipline and its relationship to human movement. Each Option focuses on foundation preparation for a specific occupation or graduate work.

## Physical Fitness Proficiency

Each Bachelor of Science Major is required to demonstrate a physical fitness proficiency at the minimum level of a 3.0 before graduation. The physical fitness proficiency examination is administered in KIN 263 Techniques of Fitness.

## Option in Exercise Science (code KPE_BS01) (120 units)

This option is designed primarily for those students interested in careers in exercise physiology, biomechanics, or motor control/learning as well as those students contemplating graduate work in these areas or one of the health professions, e.g., physical therapy.

## Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filing period is greater that the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Exercise Science is an impacted program and has the following supplementary admission criteria:

To be eligible for admission to the Bachelor of Science in Kinesiology Option in Exercise Science, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed the following prerequisite courses, each with a grade of "C" or better: BIOL 207, BIOL 208, CHEM 111A, ENGL 100, MATH 112, PHYS 100A, and PSY 100. Applicants must show proof of current First Aid (Community) certification and CPR (Community) certification. Applicants must submit a supplemental application to the CSULB Department of Kinesiology by February 1 for the fall semester or by October 1 for the spring semester. The supplemental application is available from the KIN Department Office or the KIN web site (www.csulb.edu/kin). The supplemental application must be accompanied by 2 letters of recommendation, preferably one letter from a natural sciences faculty member. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average.

## Requirements

Core Courses: BIOL 207, 208; KIN 300, 301, 312.
Lower Division: CHEM 111A, 111B; KIN 263; PHYS 100A, 100B, PSY 100.

Upper Division: KIN 405, 441, KIN 430 or 431; KIN 483 or BIOL 260; Select three courses from KIN 339I, 462, 465, 466.

Elective Courses: select 18 units (minimum 6 units from KIN) from the following courses: BIOL 200, 211A, 211B, 301, 340, 341, 342 and 342L, 345, 441, 442, 443, 445, 446; CHEM 327, 448; NUTR 132, 331A, 331B; HHS 374, 401, 460, 471; H SC 150; KIN 315, 320, 3391*, 363, 430*, 431*, 462*, 465*, 466*, 471, 494, 495, 497.

* If not taken as one of the major required upper division courses.

A fieldwork, field experience or internship course requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Option in Fitness (code KPE_BS02) (120 units)

This option is designed for students interested in careers in the fitness industry, e.g. fitness director, manager, program specialist, coordinators, personal trainer, or group instructors in corporate, commercial, YMCA, or other public/private facility.

Core Courses: BIOL 207, 208; KIN 300, 301, 312.
Lower Division: NUTR 132; PSY 100; KIN 215, 263, and eight physical activity units distributed over a minimum of two activity categories:
Aquatics: KIN 125A, 125B, 237, 238;
Combatives: KIN106A, 148A, 149A;
Dance: KIN 185, 260;
Fitness: KIN 142, 151A, 152A, 198A;
Individual/Dual Sports: KIN 100A, 100B, 112A, 112B, 264,
265, 266, 267, 268;
Wilderness Studies: KIN 242, 244, 246A, 247A;
Team Sports: KIN 250, 253, 255, 257.
Upper Division: HSC 435; KIN 332I or 335, 339I, 363, 364, 367, 368, 405, 467, 469, 483, 489D.

Elective Courses: Select twelve units from the following courses: FCS 433, 439; HSC 421, 423, 429; KIN 207, 309, 315, 332I*, 335*, 462, 465, 495, REC 421, 423, 425, 427. * If not taken as one of the major required upper division courses.

A fieldwork, field experience, or internship requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Option in Kinesiotherapy (code KPE_BS03) (120 units)

This option is designed primarily for those students interested in careers which provide therapeutic physical activities in rehabilitation settings including clinics, hospitals, schools, universities, convalescent homes and other private and public institutions. Students interested in certification by the American Kinesiotherapy Association (AKTA) must complete additional requirements. Please consult the Department Coordinator and the Kinesiotherapy Certificate Program for additional information.

## Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filing period is greater that the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Kinesiotherapy is an impacted program and has the following supplementary admission criteria:

To be eligible for admission to the Bachelor of Science in Kinesiology Option in Kinesiotherapy, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman
or transfer student. Applicants must have completed the following prerequisite courses, each with a grade of "C" or better: BIOL 207, BIOL 208, PSY 100, and KIN 210. Applicants must have completed PSY 200 with a grade of " B " or better. Applicants must have completed a minimum of 100 hours of observation or active participation in a therapeutic or rehabilitation setting. Applicants must submit a supplemental application to the CSULB Department of Kinesiology by February 1 for the fall semester or by October 1 for the spring semester. The supplemental application is available from the KIN Department Office or the KIN web site (www.csulb.edu/kin). The supplemental application must be accompanied by 3 letters of recommendation, one letter must be from the therapeutic or rehabilitation setting noted above. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission for admission based on cumulative grade point average, with a minimum of 2.75 .

## Requirements

Core Courses: BIOL 207, 208; KIN 300, 301, 312.
Lower Division: PSY 100, 110, 141, 200; KIN 210,
217, 263, and six physical activity units distributed over a minimum of four activity categories:
Aquatics: KIN 125A, 125B, 237, 238;
Combative: KIN 106A, 149A;
Dance: KIN 185, 260;
Individual/Dual Sports: KIN 100A, 112A, 112B, 264, 265, 266, 267, 268;
Wilderness Studies: KIN 242, 244, 246A;
Team Sports: KIN 250, 253, 255, 257.
Upper Division: GERN 400 I or BIOL 301; HHS 374; KIN 309, 315, 320, 332I or 335, 427, 489F; PSY 341, 370.

A fieldwork, field experience or internship course requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Option in Sport Psychology and Coaching (code KPE_BSO4) (120 units)

The Option in Sport Psychology and Coaching has two Concentrations - one in Sport Psychology and one in Coaching. The course work for both concentrations is the same except for the elective courses. The Option is designed for students interested in careers in: 1) sport psychology; and 2) coaching outside the public school system (K-12), e.g., coaching professional athletes, coaching college athletes, coaching youth-sport athletes, and coaching in sport academies.

Core Courses: BIOL 207, 208; KIN 300, 301, 312.
Lower Division: NUTR 132; KIN 263; PSY 100, 110, 200; and eight physical activity units to be distributed over a minimum of two activity categories:

Aquatics: KIN 125A, 125B, 237, 238;
Combatives: KIN 148A;

Individual/Dual Sports: KIN 264, 265, 266, 267, 268;
Team Sports: KIN 250, 253, 255, 257.
Upper Division: KIN 315, 332I, 335, 339I, 472, 475; PSY 333, 356.

Elective Courses for the Concentration in Sport Psychology: Select 15 units (minimum 6 units from KIN) from the following courses: HHS 374; H SC 427; KIN 471, 489B, 495, 497; PSY 141, 332, 370, 373, 475.

Elective Courses for the Concentration in Coaching: Select 15 units (minimum 6 units from KIN) from the following courses: ACCT 310; COMM 411; HRM 360; H SC 427; I S 300; KIN 489B, 497, 499; MKTG 300, 330; REC 321, 322, 324, 427.

A fieldwork, field experience, or internship requires current certification in First Aid (American Red Cross: Community First Aid \& Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment.

## Option in Athletic Training (code KPE_BS05) (120 units)

This Option is designed for students interested in an athletic training career in the specialization of injury and illness prevention, assessment, treatment and rehabilitation for athletes and all physically active people, including the general public. A National Athletic Trainers' Association Board of Certification, Inc. (BOC) certified athletic trainer works in physician offices, rural and urban hospitals, hospital emergency rooms, urgent and ambulatory care centers, military hospitals, physical therapy clinics, high schools, colleges/universities, commercial settings, professional sports teams and performing arts companies. A minimum 120 units are required for graduation

The athletic training option presents students two paths of educational study. One path of study offers students an overview of athletic training courses that may be applied to related allied health programs. The second path of study prepares a student for a career in athletic training. In addition to the Option's course work, a student to be eligible to take the National Athletic Trainers' Association Board of Certification, Inc. (BOC) examination requires the completion of a two year program in clinical education. The BOC requires the student to be a graduate of a Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited athletic training education program.

The Athletic Training Education Program (ATEP) is currently in Joint Review Committee - Athletic Training (JRC-AT) candidacy for accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Candidacy Statement Disclaimer: Athletic Training Education Programs in JRC-AT candidacy are not guaranteed the awarding of CAAHEP Accreditation at the end of the candidacy process.

Students interested in the Athletic Training Education Program and/or certification by the National Athletic Trainers' Association Board of Certification, Inc. (BOC) should meet with the Program Director for Athletic Training Education for additional information.

## Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filling period is greater that the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Athletic Training (code KPE_BS05) is an impacted program and has the following supplementary admission criteria:

To be eligible for admission to the Bachelor of Arts in Kinesiology, Option in Athletic Training, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed the following prerequisite courses, each with a grade of "C" or better: BIOL 207, BIOL 208, and PSY 100. Applicants must have completed KIN 207 (Prevention and Care of Athletic Injuries) with a grade of "B" or better. Applicants must have completed a minimum of 150 hours of athletic training experience. At least 100 of these hours must be attained by participation in a traditional athletic training setting under the supervision of a NATABOC-certified athletic trainer. A maximum of 50 of these hours may be attained in an allied clinical setting, such as sports medicine clinics, summer sports camps, sports performance facilities, hospital facilities, or dance performance centers. Applicants must show proof of current First Aid (Community) certification, CPR (Community) certification, and AED certification. Applicants must submit a supplemental application to the CSULB Department of Kinesiology by October 1 for the spring semester. The supplemental application is available from the KIN Department Office or the KIN web site (www.csulb.edu/ kin). The supplemental application must be accompanied by 3 letters of recommendation; one letter must be from the athletic training setting noted above. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average.

## Requirements

Core Courses: BIOL 207, 208; KIN 300, 301, 312.
Lower Division: CHEM 100 or 111A or 140; NUTR 132 or 430; HSC 210; KIN 207, 263; PHYS 100A; PSY 100; BIOL 260 or MATH 180 or KIN 483.

Upper Division: HSC 427; KIN 304, 306, 308A, 308B, 309, 310, 315, 332l or 335, 3391, 368, 407.

A fieldwork, field experience, or internship course requires current certification in First Aid (American Red Cross: community First Aid \& Safety or Emergency Response or Workplace Training: Standard first Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant \& Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant \& Child CPR or ACLS Provider or equivalent) prior to enrollment

## Adapted Physical Education Specialist Credential (code 490)

This program is designed for students interested in the administration and implementation of physical activity programs for persons with disabilities. Completion of this credential authorizes the California Adapted Physical Education Specialist Teaching Credential.

## Requirements

1. Bachelor's degree with a teaching major in Kinesiology;
2. Must be obtained concurrently or after completion of the Single Subject Physical Education Teaching Credential, K-12;
3. KIN 320, 387, 388, 427, 526, 546; EDSP 350; Select two courses from CD 280; ED P 405, 526, 579B; EDSP 546A-F, 564.

## Minor in Physical Education Teaching (code KPE_UM01)

The minor in Physical Education Teaching is available to any non-Kinesiology major. This minor is designed for those students who are striving for an additional credential. With completion of this minor, the University will recommend the additional credential in Physical Education.

## Requirements

A minimum of 34 units as follows: BIOL 207 and KIN 301 or BIOL 208 and KIN 300; KIN 315, 343, 370, 380, 460, 483; EDSS 300P; Eight physical activity units including: KIN 237 or $238 ; 265 ; 250$ or 257 ; 253 or 255 ; 264 or $268 ; 266$ or $267 ; 270$.

In addition to the above, each student is required to demonstrate skill proficiency at an average 3.5 level on a 5 point scale in KIN 343 and the 8 physical activity units completed to satisfy requirements for this minor. Only physical skill proficiency scores in the range of 2.0-5.0 are recorded and computed to determine a student's physical skill proficiency average.

## Concentration in Physical Education Elementary Teaching

## Requirements

A minimum of 21 units as follows: KIN 301, 312, 315, 370, 427, 476, 477.

Concentration in Physical Education Coaching

## Requirements

A minimum of 20 units as follows: KIN 301, 207, 332I; a minimum of 11 units selected in consultation with appropriate Kinesiology Advisor from the following: KIN 312, 363, 475, 489B.

## Certificate Programs

The Department of Kinesiology offers two different certificate programs each of which is related to a special emphasis provided in the curriculum. All certificate programs are open to students enrolled in the University who meet general admission requirements as follows:

1. Completion of 30 hours of course work;
2. A minimum 2.75 GPA in all completed course work;
3. Admission application and approval by a faculty committee in the certificate program selected.

## Wilderness Studies Certificate (code KPE_CT02)

This program is designed to develop leaders who can provide safe and challenging situations for individuals seeking self-fulfilling experiences in wilderness environments. The program of study will enable the student to acquire appropriate knowledge and skills, and to develop a personal philosophy
reflecting understanding and concern for the protection of the environment and safety of participants in wilderness activities.

## Requirements

1. Certification in First Aid and Cardiopulmonary Resuscitation;
2. Completion of Log of Outdoor Experiences;
3. Course work (31-33 units as follows): BIOL 100, KIN 346,448 , REC 490 with advisement. The following coursework must be taken in consultation with the advising coordinator: select four courses from KIN 131, 153, 242, 244, 247A; select two courses from KIN 243A, 243C, 245, REC 430; select one course from KIN 141, 446, 497, 499; select one course from NUTR 132, REC 407, 431, 433.

## Kinesiotherapy Certificate (code KPE_CT04)

This program is designed to prepare the student to pass the American Kinesiotherapy Association (AKTA) Certification Test. AKTA certification will qualify the therapist to provide therapeutic physical activities in rehabilitation settings including clinics, hospitals, schools, universities, convalescent homes and other private and public institutions or in private practice. The student will complete the Kinesiotherapy Option in the undergraduate curriculum plus 27 additional units. Information concerning the certificate can be obtained from the Director of the Kinesiotherapy Program in the Department of Kinesiology.

Students seeking National Kinesiotherapy Certification need to complete the Undergraduate Option in Kinesiotherapy, the Undergraduate Kinesiotherapy Certificate, plus 12 post-baccalaureate Internship units with consensus of the Kinesiotherapy Advisor.

## Requirements

1. Admission application and approval by Director;
2. Completion of the degree requirements of the Bachelor of Science: Option Kinesiotherapy;
3. Specialization course work requires a " B " or better grade for AKTA Certification;
4. Course work: BIOL 301 or GERN 400I; H SC 210 or 411A or 411B or 427; KIN 210, 309, 320, 405 or 499, 427, 438/538, 488/588, 485, 489F; PSY 341.

## GRADUATE PROGRAMS

Two degree programs are available to the student: Master of Arts degree in Kinesiology with seven Options and Master of Science degree in Kinesiology with three Options. The student may select the thesis/project track or the comprehensive examination track. The student who chooses the thesis/project track is required to complete a thesis or a project. The student who chooses the comprehensive examination track is required to take KIN 695. The minimum unit requirement for the MA degree major program is 30 units for thesis/project students and 36 units for comprehensive examination students. The minimum unit requirement for the MS degree major program is 33 units for thesis/project students and 39 units for comprehensive examination students.

## Admission Criteria

1. A bachelor's degree from an accredited institution with a major in Kinesiology/Physical Education or the equivalent;
2. If a prospective graduate student has a baccalaureate degree in a field other than Kinesiology or Physical Education, he/she may be required to take prerequisite or foundational upper-division undergraduate coursework in Kinesiology. Students must consult with the Graduate Coordinator and/or major advisor before enrolling in foundational courses. The courses, which vary depending on the student's academic background and Option, may be taken at CSULB or another college/university. All foundational coursework must be completed prior to Advancement to Candidacy.
3. An overall undergraduate GPA of 2.5 or better and an upper division Kinesiology/Physical Education major GPA of 2.75 or better;
4. A minimum cumulative score of 450 on the verbal, 450 on the quantitative and 3.5 on the analytical writing sections of the Graduate Record Examination.

## Advancement to Candidacy

1. Completion of the general University requirements for advancement to candidacy;
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
3. A graduate program must have approval of the student's advisor, Department Graduate Coordinator, and Associate Dean of Graduate Students, Research, and Faculty Affairs for the College of Health and Human Services.

## Master of Arts in Kinesiology

Seven Options are under the Master of Arts degree in Kinesiology and are described below. The core courses for thesis students are KIN 590, 696, and 698. The core courses for comprehensive examination students are KIN 590, 695, and 696.

## Option in Adapted Physical Education (code KPE_MA04)

This Option is designed to provide advanced preparation in adapted physical activity and the study of individuals with disabilities across the lifespan (preschool to adult).

## Requirements

1. KIN 590 and 696;
2. Minimum of 12 units selected from the following: KIN 537, $538,546,638$, and 697;
3. KIN 698 (4 units) for thesis/project students plus a minimum of 8 elective units;
4. KIN 695 for comprehensive exam students plus a minimum of 15 elective units.

## Option in Coaching (code KPE_MA07)

This Option provides an in-depth study in the scientific, mechanical, emotional, and methodological realms of coaching.

## Requirements

1. KIN 590 and 696;
2. Minimum of 12 units selected from the following: KIN 524, $540,551,560,562,575,630$, and 633 ;
3. KIN 593 (3-6 units) required after advancement to candidacy;
4. KIN 698 (4 units) for thesis/project students, plus a minimum of 2-5 elective units;
5. KIN 695 for comprehensive examination students, plus a minimum of 12-15 elective units.

## Option in Motor Behavior (code KPE_MA06)

This Option is designed to provide advanced preparation in human movement from a behavioral perspective; this includes the examination of motor learning, control and development across the lifespan.

## Requirements

1. KIN 590 and 696;
2. Minimum of 12 units selected from the following: KIN 540, 546, 630, 633, and 697 (3 units);
3. KIN 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
4. KIN 695 for comprehensive examination students, plus a minimum of 15 elective units.

## Option in Pedagogical Studies (code KPE_MA02)

This Option provides preparation in student design, instructional development, and evaluation to improve the supervision of skills and develop expertise in behavioral research methods.

## Requirements

1. KIN 524, 525, 526, 590, 696, and 697;
2. KIN 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
3. KIN 695 for comprehensive examination students, plus a minimum of 15 elective units.

## Option in Sport Studies (code KPE_MA05)

This Option examines sport from the perspective of sociology, anthropology, history, psychology, and philosophy.

## Requirements

1. KIN 590 and 696;
2. Minimum of 12 units from the following: KIN 573, 574, 577, 633, and 697 ( 3 units);
3. KIN 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
4. KIN 695 for comprehensive examination students, plus a minimum of 15 elective units.

## Option in Sport Management (code KPE_MA03)

This Option prepares individuals for careers in athletic administration and sports management. Upon completion of this program ( 36 units), individuals will be prepared to work in the sports industry in a variety of settings, including professional, intercollegiate, and interscholastic sports and sport-related businesses.

Instruction in this Option is presented in an accelerated cohort program format over 18 months.

## Requirements

1. KIN 511, 512, 513, 514, 521, 577, 590, 591, 592A (6 units) and 696.
2. KIN 698 (4 units) for thesis/project students (Not available to students in the cohort format).
3. KIN 695 for comprehensive exam students.

## Option in Individualized, Program, and Generalized Areas (code KPE_MA08)

This Option is designed to provide the student with curriculum activities that combine one or more Option areas into a program of study. This Option is developed by the student with the advisement of a graduate faculty member and/or the Graduate Advisor. A statement of rationale for the proposal must accompany the program of study.

## Requirements

1. KIN 590 and 696;
2. Minimum of 15 units from 500 and/or 600 level coursework in KIN;
3. KIN 698 (4 units) for thesis project students, plus a minimum of 5 elective units (individualized);
4. KIN 695 for comprehensive examination students, plus a minimum of 12 elective units (generalized and program areas only).

## Master of Science in Kinesiology

Three Options are under the Master of Science degree in Kinesiology and are described below. The core courses for thesis/project students are KIN 580, 590, 696, and 698. The core courses for comprehensive examination students are KIN 580, 590, 695, and 696.

## Option in Exercise Science (code KPE_MS01)

This Option is designed to provide up-to-date theoretical principles and practical experiences in exercise physiology and biomechanics.

## Requirements

1. KIN $540,550,551,552,580,590,696$, and either 594 or 697;
2. Select two of the following four courses or select 6 other units with advisor's approval: KIN 541, 562, 565, and 566;
3. KIN 698 (4 units) for thesis project students;
4. KIN 695 for comprehensive examination students, plus a minimum of 6 elective units.

## Option in Sport and Exercise Psychology (code KPE_MS02)

This Option is designed to prepare students for careers in sport and exercise psychology, in particular as athletic performance enhancements specialists and/or as researchers and teachers in academic settings.

## Requirements

1. KIN 572, 575, 580, 590, 633, 696 (18 units);
2. Two of the following courses: KIN 571, 573 or $574,577,630$, 697 (6 units);
3. KIN 698 (4 units) for thesis students, plus a minimum of 5 units from PSY/E DP and/or additional KIN electives with advisor approval;
4. KIN 695 (3 units) for comprehensive examination students, plus 12 units from PSY/ED P courses and/or additional electives in KIN with advisor approval.

## Option in Sports Medicine and Injury Studies (code KPE_MS03)

This Option is designed to provide an in-depth study in the many health-related problems related to individuals who are physically active.

## Requirements

1. KIN 540, 551, 560, 561, 562, 580, 590, 633, 696, and 697;
2. KIN 698 (4 units) for thesis/project students;
3. KIN 695 for comprehensive examination students, plus a minimum of 6 elective units.

## Option in Exercise Physiology and Nutrition (code KPE_MS04)

This option is designed to prepare students for careers in exercise physiology and nutrition.

## Requirements

1. Completion of a minimum of 34 units for thesis/project students and a minimum of 39
units for comprehensive examination students;
2. KIN 551, 566, 580, 590, and 696 or FCS 696;
3. Select two from the following list of courses: KIN 550, 552, 553,562 , and 565 ;
4. Select three from the following list of courses: NUTR *436 and *439; FCS 530A, 530B, 531, 562, and 655A;
5. KIN 698 or FCS 698 (4 units) for thesis/project students;
6. KIN 695 for comprehensive examination students plus a minimum of 6 elective units
from KIN 594, 595, and \#2 and \#3 above.

## Courses (KIN)

## ACTIVITY COURSES

## 100-198. Physical Education Activity (1)

Broad range of physical education activities designed to provide opportunities to meet health, physical and recreational needs and interests.
Maximum of 8 units may be applied toward University graduation requirement. Students assume responsibility for satisfactory health status appropriate for class activity. May be offered at beginning (I), intermediate (II), and advanced (III) levels. All classes are co-educational, students may enroll in activity courses offered by Department of Kinesiology. Classes offered within areas are:
Individual/Dual Activities (1)
100A. Archery. Course fee may be required.
102A. Badminton
104A. Bowling. Course fee may be required.
108A. Golf
112A,B. Racketball
114A,B,C. Tennis
145A. Gymnastics
152A. Yoga
Combative Activities (1)
106A. Fencing-Foil
107A. Fencing-Sabre
148A. Karate
149A. Self Defense

Aquatics (1)
121A. Sailing. Course fee may be required.
124A. Surfing
125A,B. Swimming
126A. Swimming Conditioning
133A. Windsurfing. Course fee may be required.
Fitness Activities (1)
142. Low Impact Aerobics

146A. Jogging
151A. Weight Training and Conditioning
Team Activities (1)
161A. Basketball
162A. Beach Volleyball
165A. Flag Football
166. Rugby

167A. Soccer
169A. Softball
172A,B,C. Volleyball
Recreational Dance
183A. Recreational Dance Workshop
185. Social Dance
198. Special Activities (1-3)
A. Aqua Aerobics
B. Triathlon Fitness
E. Individual Adapted Activities

* See Physical Education professional courses for additional activities open to non-majors.


## PROFESSIONAL COURSES

Kinesiology majors and minors will be given priority enrollment in classes required for the major. Selected courses are available to the general student body to receive credit toward general education requirements.

## LOWER DIVISION

## 122. Introduction to Scuba Diving (2)

Prerequisite: Swim test.
General activity course designed for students who are interested in exploring the concept of becoming a Scuba Diver. It does not require any ocean dives, nor is Scuba certification issued upon completion.
(Lecture 1 hour, Activity 2 hours.)

## 143. Individual Conditioning (1)

Designed to introduce the student to the activities, equipment, and techniques used in the development of conditioning programs tailored to one's individual needs.
May be repeated to a maximum of 8 units.

## 156. Sports Appreciation (3)

Prerequisite: One of the GE Foundation courses (may be taken concurrently).
Introduction to the study of sport as a social institution in American society.

## 157. Fitness for Living (3)

Prerequisite: One of the GE Foundation courses (may be taken concurrently).
Analysis and implementation of the concepts related to exercise for health and fitness.
(Lecture 2 hours, Activity 2 hours.)

## 159. Aerobic Teacher Training (2)

Prerequisite: KIN 142 or equivalent.
Instruction in organizing and teaching methodology of aerobic fitness concepts including movement principles, and exposure to a variety of activities applicable to aerobic teacher training.
(Lecture 1 hour, Activity 2 hours.)

## 189. Country Dancing (1)

Instruction and practice in various country dance forms including line dancing, two-step, waltz, contra dancing, round dancing, and mixers. This course is useful for lifelong fitness, socialization, and recreation. May be repeated to a maximum of 8 units.

## 200. Psychological Skills for Peak Performance in Sport

 (3)Introduction of psychological strategies and skills designed to help individuals achieve optimal performance. Skills such as imagery, goal setting, self-talk, attentional focusing, arousal regulation, and coping are presented.
(Lecture, 3 hours)

## 207. Prevention and Care of Athletic Injuries (3)

Prerequisites: KIN 210 or equivalent.
Principles and techniques of the prevention and care of common athletic injuries.
(Lecture 2 hours, Activity 2 hours).

## 210. Advanced Emergency Care (3)

Theory and practice of first aid for the injured. Successful completion of course requirements leads to the American National Red Cross advanced first aid and personal safety and community CPR certificate.
Course fee may be required.

## 215. Career Perspectives in Human Movement (1)

Overview of human movement including professional preparation and employment opportunities. Orientation to current programs and proficiency requirements.
Students entering the Kinesiology major are required to enroll in this course their first semester of study.

## 217. Introduction to Kinesiotherapy (2)

Introduction to profession of Kinesiotherapy intended to provide student with information regarding history of the profession, its educational expectations, standards and scope of practice and a survey of basic skills needed to enter this field of study.
Letter grade only (A-F).

## 237. Techniques and Analysis of Aquatic Skills (2)

Prerequisites: KIN 125A or 125B or consent of instructor, American Red Cross Community First Aid and CPR certifications or equivalent. Open to Kinesiology majors in the Adapted, Elementary, and Secondary Physical Education options. To maintain enrollment, students must pass the swimming proficiency examination that will be administered the first week of instruction.
Instruction and techniques in individual aquatic skills, hydrodynamic and movement principles, and an exposure to a variety of learning procedures applicable to the development of aquatic skills.
Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)

## 238. Water Safety Instructor (2)

Prerequisites: KIN 125A or 125B or consent of instructor, American Red Cross Community First Aid and Safety and Cardiopulmonary Resuscitation certifications or equivalent. To maintain enrollment, students must pass the swimming proficiency examination that will be administered the first week of instruction.
Comprehensive analysis of principles of movement, organizational strategies utilized in presenting aquatic activities and advanced swimming skills in physical education classes. Includes an opportunity to qualify for the American Red Cross Water Safety Instructor certification.
Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)
239. Lifeguard Training (2)

Prerequisites: American Red Cross Community First Aid and Safety or equivalent.
Provide lifeguard candidates with the skills and knowledge necessary to keep the patrons of aquatic facilities safe in and around the water. (Lecture 1 hour, Laboratory 3 hours.)

## 242. Backpacking (2)

An experiential examination and analysis in the judgment, knowledge, equipment and skills necessary to safe wilderness travel and living.
2-3 day field experience required. Course fee may be required.
243A. Winter Mountain Expedition (3)
Introduction to winter mountaineering skills; study of the mountain environment.
(Activity 6 hours) (2-3 day field experience required) Course fee may be required.

## 243B. Summer Mountain Expedition (3)

Instruction and extended experience developing the attitudes, judgment, knowledge and skills for safe mountain travel and living. Trip planning, logistics, navigation, mountain medicine, mountaineering techniques, safe and ecological camping will be learned and practiced while on a ten-day expedition. Throughout the wilderness expedition group process, leadership, problem solving and judgment all provide growth and experiential education opportunities that develop the successful wilderness traveler.
Letter grade only (A-F). (Activity 6 hours) Course fee may be required.

## 243C. Desert Expedition (3)

Introduction to the skills, attitudes and knowledge required for safe use and enjoyment of desert areas. An interdisciplinary introduction to the meaning and significance of the desert. Trip planning, map use, methods of safe travel.
Course includes field trip. Course fee may be required. (Activity 6 hours.)

## 244. Kayaking (2)

An experiential examination and analysis of the judgment, knowledge, equipment and skill development necessary to safe flat and whitewater kayaking.
2-3 day field experience required. Course fee may be required.
(Activity 4 hours.)

## 245. Wilderness Water Expedition (3)

Introduction to the skills, attitudes and knowledge required for safe use of varied types of wilderness waters. The skills and techniques of boat handling and trip planning. An interdisciplinary introduction to the study of waterways.
(Activity 6 hours.) 2-3 day field experience required. Course fee may be required.

## 246A. Mountaineering (2)

An experiential examination and analysis in the judgement, knowledge, equipment and skills necessary to safe mountaineering. Course includes field trip. Letter grade only (A-F). (Activity 4 hours.) Course fee may be required.

## 247A. Techniques of Rockclimbing (2)

Introduction to the basic skills, judgment and safety for technical rockclimbing. The skills and techniques of top roping, belaying rappels and self rescue.
Course includes a field trip. Course fee may be required. (Activity 4 hours.)

## 250. Techniques of Basketball (1)

Instruction in individual and team skills and techniques utilized in the sport of basketball for successful performance.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 253. Techniques of Soccer (1)

Instruction in individual and team skills and techniques utilized in the sport of soccer for successful performance.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 255. Techniques of Softball (1)

Instruction and practice in catching, throwing, hitting, sliding, base running, and bunting. Comprehensive teaching of skills and techniques in softball.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 257. Techniques of Volleyball (1)

Instruction in individual and team techniques utilized in the sport of volleyball.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 260. Fundamental Rhythms (2)

Instruction and practice in fundamental rhythms involving folk and social dance forms.
Designed for Kinesiology majors and minors, but open to all students. (Activity 4 hours.)

## 261. Techniques and Analysis of Fundamental Rhythms

 (2)Instruction, practice and analysis of social and folk dances necessary for successful teaching of basic social and folk dances in the public schools. Includes instruction in the fundamental rhythms that are sequenced to make up the basic rhythm patterns of nearly all social and folk dances. Various floor pattern and rhythm variations are taught and analyzed in terms of their appropriateness for various age groups and skill levels.
Open to Kinesiology Pedagogy Majors only. Letter grade only (AF). (Activity 4 hours.)

## 263. Techniques of Physical Fitness (2)

Consists of instruction, practice, and evaluation in physical fitness. Cardiorespiratory, muscular strength and endurance, and flexibility activities will be emphasized within the course.
Open to Kinesiology majors only or consent of instructor. Not open for credit to Kinesiology majors in the pedagogy options. Letter grade only (A-F). (Discussion 1 hour, Laboratory 3 hours.)
264. Techniques of Golf (1)

Instruction and techniques in individual skills and strategies for successful performance in golf.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 265. Techniques and Analysis of Gymnastics (2)

Techniques, instruction and comprehensive analysis of the principles of movement in gymnastics. Organizational strategies utilized in presenting gymnastics in Physical Education classes.
Open to Kinesiology majors and minors only. Letter grade only (AF). (Lecture 1 hour, Laboratory 3 hours)

## 266. Techniques of Badminton (1)

Instruction and techniques in the skills and strategies for successful performance in badminton.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 267. Techniques of Tennis (1)

Instruction, techniques and analysis in the concepts of teaching, coaching, and playing tennis.
Open to Kinesiology majors and minors only. (Activity 2 hours.)

## 268. Techniques of Track and Field (1)

Instruction, techniques and analysis in the concepts of teaching, coaching, and performance in track and field.
Open to Kinesiology majors and minors only. Letter grade only (AF) (Activity 2 hours.)

## 270. Professional Practices in Public School Physical

 Education (3)Prerequisite: Students must meet the University GE writing course requirement. Corequisite: Community CPR/First Aid/Safety or current certification.

Provides an overview of current professional practices in public school physical education. Students plan, teach, and self-evaluate lessons. Required introductory course for Adapted, Elementary and Secondary Pedagogy options after 30 units of college course work.
Open to Adapted, Elementary, and Secondary Option students in Kinesiology only. Letter grade only (A-F). (Lecture 2 hours, Laboratory 2 hours.)

## UPPER DIVISION

## 300. Biomechanics of Human Movement (3)

Prerequisites: BIOL 208 or equivalent.
Anatomical structure and function, and mechanical principles relating to human motion, including analytical application.
(Lecture 2 hours, laboratory 3 hours.)

## 301. Exercise Physiology (3)

Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3 -hour lecture and 3 -hour laboratory with grade of " C " or better or consent of instructor.
Basic concepts of the physiology of muscular exercise with emphasis on the responses and adaptations of the circulatory system, the respiratory system, and skeletal muscles to the physical stress of acute and chronic exercise.
(Lecture 2 hours, Laboratory 3 hours). Course fee may be required.

## 304. Clinical Aspects of Athletic Training (3)

Prerequisites: BIOL 207, 208; KIN 207.
Principles and techniques of related clinical concepts applicable to the athletic training setting.
Open to Kinesiology majors in athletic training or consent of instructor. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours).
306. Medical Aspects of Athletic Training (3)

Prerequisites: BIOL 207, 208; KIN 207.
Principles and techniques of related medical concepts applicable to the athletic training setting.
Open to Kinesiology majors in athletic training or consent of instructor. Letter grade only (A-F).
308A. Athletic Training Evaluation I (2)
Prerequisites: BIOL 207; KIN 207, 300.
Theoretical concepts and clinical skills related to the assessment of athletic injury and illness. The first semester of a two-semester sequence (KIN 308A and 308B). Emphasis is on the injury evaluation process, injury nomenclature, lower extremity, thoracic and lumbar spine, and cervical spine.
Open to Kinesiology majors in Athletic Training or consent of instructor. Letter grade only (A-F). (Lecture 1 hour, Activity 2 hours)
308B. Athletic Training Evaluation II (2)
Prerequisites: BIOL 207; KIN 207, 300, 308A.
Theoretical concepts and clinical skills related the assessment of athletic injury and illness. The second semester of a two-semester sequence (KIN 308A and 308B). Emphasis is on the thorax and abdomen, upper extremity, eye, face, head and neck, environmental, selected cardiopulmonary conditions, and selected general medical conditions.
Open to Kinesiology majors in Athletic Training or consent of instructor. Letter grade only (A-F). (Lecture 1 hour, Activity 2 hours)

## 309. Developmental and Therapeutic Exercise (3)

Prerequisites: KIN 300, 301 or consent of instructor, Principles, techniques, and prescription of exercises for development or rehabilitation of the body.
(Lecture 2 hours, Activity 2 hours.)
310. Therapeutic Approaches in Athletic Training (3)

Prerequisites: KIN 308A or 309 or consent of instructor.
Theory and application therapeutic modalities and exercise rehabilitation commonly used in athletic training programs.
Open to Kinesiology majors in the athletic training option only. (Lecture 2 hours, Activity 2 hours).

## 312. Motor Control and Learning (3)

Prerequisites: BIOL 207, 208; PSY 100.
Basic concepts of the neuro-motor and psychological contributions in the control and acquisition of skilled performance.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

## 315. Motor Development (3)

Prerequisites: BIOL 207, 208; PSY 100 or equivalent.
Developmental perspective of factors contributing to acquisition of motor control from infancy through adolescence.
(Lecture 2 hours, Activity 2 hours)
320. Adapted Physical Education (3)

Prerequisites: BIOL 208.
Kinesiology majors learn to teach physical activity to persons with disabilities. Discussed are the etiology characteristics and best teaching practices (i.e., inclusion) for persons with mental, learning physical, emotional, sensory, health, and/or multiple disabilities.
(Lecture 2 hours, Activity 2 hours).

## 332I. Sociocultural Dimensions of Sport and Human

 Movement (3)Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Socio-cultural and psychological correlations to human movement.

## 335. Historical and Cultural Foundations of Sport and Kinesiology in America (3)

Prerequisites: Upper division standing.
Survey of the history of sport and kinesiology. Historical identification of the cultural trends and functions of sport and kinesiology in America.
Open to Kinesiology Majors only.
3381. Women in Sport (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of women's historical and contemporary involvement with sport. The social, cultural and developmental implications of sports participation for women.
Same course as W/ST 3381.

## 3391. Psychology of Sport Behavior and Athletic Performance (3)

Prerequisites: Completion of GE Foundation, PSY 100, and upperdivision standing
Psychological dimentions of attitudes, behaviors, and performance in sport and exercise environments.
Same course as PSY 3391.

## 343. Techniques and Analysis of Physical Fitness and

 Activity (2)Prerequisite: KIN 270.
Knowledge needed to plan and implement physical activity programs in public school. Analysis of development, maintenance, implementation, and self-assessment of physical fitness. Designed to prepare for FitnessGram assessments and Department's Physical Fitness Proficiency Examination.
Open to Kinesiology/Physical Education Pedagogy Majors and Minors only. Letter grade only (A-F). (Lecture 1 hour, Activity 3 hours).

## 346. Wilderness Emergency Care (2)

Prerequisites: One wilderness skill course or equivalent; KIN 210 or current certification in first aid and cardiopulmonary resuscitation.
Techniques concerned with wilderness emergencies, including advanced first aid, cardiopulmonary resuscitation, search and rescue and emergency evacuation methods.
(Lecture 1 hour, Activity 2 hours.) Course fee may be required.

## 354. Technology in Physical Education (3)

Overview of education technology applications, specifically wordprocessing, spreadsheet, video technology, web-based information, internet related software and technologies, pdf documents, personal digital assistants (PDAs) and use of commercially produced education software.
Meets computer technology requirement for California Single Subject Preliminary Teaching Teaching Credential. Letter grade only (A-F). (Lecture 2 hours, laboratory 2 hours).
363. Theory and Analysis of Group Fitness Instruction (2)

Prerequisite: KIN 263. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Learn to become effective group exercise leaders by understanding responsibilities of fitness leaders, principles of fitness, and leadership skill. Techniques for various group exercise activities will be taught.
Letter grade only (A-F). (Discussion 1 hour, Activity 2 hours.)
364. Fitness for Adult Populations with Unique Health Considerations (3)
Prerequisites: KIN 301. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Scientific information regarding exercise testing and exercise prescription for adult special populations. Topics include pregnancy, diabetes, arthritis, stroke, respiratory disorder, coronary artery disease, hypertension, and obesity.
Letter grade only (A-F).

## 367. Fitness and the Aging Process (3)

Prerequisites: KIN 301. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Provides knowledge in the area of fitness and the older adult. Topics include theories of aging, age-related changes that affect physical capacity, exercise and its impact on the aging process, and physical activity programming for the older adult.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 2 hours.)

## 368. Resistance Training for Fitness (3)

Prerequisites: KIN 300, 301. Open to Fitness and Athletic Training Option students in Kinesiology only, or consent of instructor.
Designed to provide the student with theoretical knowledge and practical skills needed to become a personal trainer. The course covers such topics as the business of personal training, clienttrainer relationships, fitness and health assessments and exercise prescription.
Letter grade only (A-F). (Discussion 2 hours, Activity 2 hours.)
370. Movement Theory and Practice of Elementary Physical Education (3)
Prerequisite: KIN 270.
Provides Kinesiology Physical Education Teacher Education (PETE) Option candidates with movement theory and practice in elementary school physical education based upon California Physical Education Framework and Content Standards. Practice includes fieldwork experiences in elementary school physical education.
Designed for Kinesiology majors. (Lecture 2 hours, Activity 2 hours)

## 380. Principles, Organization and Management of Secondary School Physical Education (3)

Prerequisites: KIN 149, 237 or 238, 250, 253, 255, 257, 261, 264, 265, 266, 267, 268, 343, 370 or consent of instructor. Corequisite: EDSS 300P.
Principles, organization and management of activities taught in secondary schools, includes basic organization and management strategies and fieldwork experience in public secondary school physical education.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours.)
387. Physical Activities for the Disabled (3)

Prerequisites: KIN 320, 427. Corequisite: KIN 489A.
Adaptation of physical activities, equipment, and facilities for individuals with permanent disabilities affecting motor performance.
(Lecture 2 hours, Activity 2 hours)

## 388. Program Planning and Instruction in Adapted Physical Education (3)

Prerequisite: KIN 387. Corequisite: KIN 489A.
Emphasis on program planning and the development of teaching skills in Adapted Physical Education.
(Lecture 2 hours, Activity 2 hours)

## 405. Cardiopulmonary Aspects of Health-Related Exercise Programs (4)

Prerequisites: KIN 210 or current First Aid and CPR certificates, KIN 301.

Theory and practical application of physical fitness assessment. Emphasis will be placed on the use of assessments to design and implement basic fitness programs for apparently healthy individuals. Letter grade only (A-F). (Lecture 3 hours, Laboratory 3 hours)

## 407. Management Strategies in Athletic Training (3)

Prerequisites: Senior standing or consent of instructor.
Professional issues, administration, and management strategies of athletic training programs.
Open to Kinesiology majors in the athletic training option only.

## 427./527. Physical and Motor Assessment (3)

Prerequisites: KIN 315 or equivalent and KIN 320 or equivalent; upper-division undergraduate or graduate standing; consent of instructor required for graduate students prior to registration.
The selection, administration, and interpretation of standardized and informal tests used in the physical and motor assessment practices of individuals with disabilities.
Upper-division students register in KIN 427; Graduate students register in KIN 527. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

## 430. Motor Control Principles and Theory (3)

Prerequisite: KIN 312 or equivalent.
Study of the principles, models, and theories of human movement control. Instruction is directed toward understanding the fundamental principles, theoretical propositions, and neuro-kinesiological models, with applications to sport, physical education, human factors, and human performance.
Letter grade only (A-F).

## 431. Scientific Foundations of Locomotion (3)

Prerequisites: KIN 300, 312.
Instruction is directed towards understanding the influence of motor control theories, biomechanical principles, and constraints to human movement on locomotion.
Letter grade only (A-F).

## 438./538. Motor Dysfunction and the Exceptional Person

 (3)Prerequisites: A basic undergraduate course in Adapted Physical Education or its equivalent.
Recognition, analysis, assessment and remediation of movement problems in a child with minor nervous system dysfunctions.

## 441./541. Applied Biomechanics: Lifting and Work Capacity (3)

Prerequisite: KIN 300 or equivalent (Trigonometry and PHYS 100A recommended).
Study of the mechanical properties of bone, ligament, tendon and skeletal muscle. Development and description of selected biomechanical models with application to the evaluation of weight-lifting and rehabilitation exercises, as well as occupational lifting tasks. Critical analysis of methods used to test and evaluate strength.
Letter grade only (A-F).
448. Wilderness Studies: Leadership Practicum (3) Prerequisites or corequisites: KIN 346.
Analysis and practice of the leadership and teaching techniques appropriate to the conduct of wilderness adventure programs.
Course fee may be required.

## 457. Applied Theory of Teaching Team Sports (3)

Prerequisites: KIN 250, 253, 255, 257 or consent of instructor.
Comprehensive analysis of the principles of movement, corrections of performance, and organizational strategies utilized in presenting
team sports: basketball, flag football, soccer, softball, volleyball, floor hockey, speedball, and team handball.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours.)
460. Applied Theory and Analysis of Non-Traditional Physical Education Games and Activities (2)
Prerequisites: KIN 370, senior standing.
Organization and management to effectively plan and implement a variety of non-traditional physical education games and activities such as cooperative games, problem solving activities, collaborative learning groups, and outdoor educational experiences.
Open to Kinesiology majors and minors only. Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)

## 461. Applied Theory of Teaching Individual and Dual Sports (3)

Prerequisites: KIN 237 or 238, 264, 265, 266, 267, 268, or consent of instructor; senior standing.
Comprehensive analysis of the principles of movement and organizational strategies utilized in archery, badminton, golf, paddle tennis, pickleball, racquetball, tennis, swimming, orienteering, and track and field.
Open to Kinesiology majors in the Adapted, Elementary, and Secondary Physical Education options. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours.)
462./562. Advanced Strength and Conditioning (3)

Prerequisites: KIN 300, 301.
Study of biomechanical and kinesiological factors which are important in understanding the function and proper techniques for execution of a wide variety of standard and advanced weight training exercises. Physiological bases for strength training and adaptations caused by different training regimes are emphasized.
Letter grade only (A-F).

## 465./565. Clinical Exercise Electrocardiography (3)

Prerequisites: BIOL 207, KIN 301, and/or consent of instructor.
Study of the physiology and patho-physiology of the electrical activity of the heart. Instruction is directed toward pattern recognition of normal and abnormal resting and exercise electrocardiograms.
466./566. Biochemical and Hormonal Adaptations to Physical Activity (3)
Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent.
Study of the biochemical and hormonal changes that occur as a result of acute and chronic physical activity. Emphasis will be placed on the application of concepts to the development of exercise training programs.
Consent of instructor required for upper-division undergraduate students prior to registration. Upper-division undergraduate students register in KIN 466; graduate students register in KIN 566. Letter grade only (A-F). Same course as NUTR 466.

## 467. Fundamentals of Personal Training (3)

Prerequisites: KIN 368. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Designed to provide the student with theoretical knowledge and practical skills needed to become a personal trainer. The course covers such topics as the business of personal training, clienttrainer relationships, fitness and health assessments and exercise prescription.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)

## 469. Fitness Management (3)

Prerequisite: KIN 368.
Provides knowledge in the area of management of fitness programs. Topics will include program development, personnel issues, financial and legal considerations, equipment purchasing, and marketing strategies for fitness programs.
Open to Fitness Option students in Kinesiology only, or by permission of instructor. Letter grade only (A-F).

## 471./571. Biofeedback Applications in Sport and Exercise Science (3)

Prerequisites: Upper-division or graduate standing and consent of instructor.
Application of biofeedback in enhancing athletic performance, developing exercise and bodybuilding skills, and preventing sport and exercise-related injuries.
Undergraduates register in KIN 471; graduates register in KIN 571. A written report is required for KIN 571 students. Letter grade only (A-F).

## 472./572. Applied Sport and Exercise Psychology (3)

Prerequisites: Upper division status and consent of instructor or graduate standing.
Application of psychological skills and interventions to enhance athletic performance and exercise adherence.

## 475./575. Psychology of Coaching (3)

Current topics of psychological concern and application as related to athletic performance.

## 476. Physical Education for the Elementary School

 Teacher (3)Prerequisite: Junior Standing.
Provides Multiple Subject Credential candidates with knowledge and experiences necessary to teach quality physical education lessons based upon the California Physical Education Framework and Content Standards. Content Includes the FITNESSGRAM Program (state fitness test) and subject integration activities. (Lecture 2 hours, Activity 2 hours)

## 477. Innovative Curriculum in Elementary School Physical Education (3)

Prerequisites: KIN 370 or 476 or consent of instructor.
Theory and application of elementary school physical education curriculum. Designed for students specializing in elementary school physical education programs.
(Lecture 2 hours, Activity 2 hours)
483. Measurement and Evaluation in Physical Education (3)

Prerequisites: Senior Standing.
Principles and techniques of construction, organization, administration, interpretation and evaluation of measuring devices used in Kinesiology.
(Lecture 2 hours, Activity 2 hours)
485. Neurological and Pathological Foundations for Kinesiotherapy (3)
Prerequisites: BIOL 207, 208; KIN 300, 301, 320, 489F, or consent of instructor.
Survey of neurological control of normal movement and the implications of various medical pathologies for rehabilitation. Emphasis on inflammatory processes, metabolic and vascular disturbances, traumatic injuries, nutritional deficiencies, neoplasms, degenerative conditions and congenital disorders as related to the practice of Kinesiotherapy.
Letter grade only (A-F).

## 487./587. Supervised Activity Instruction Experience

 (1-3)Prerequisite: Upper division or graduate standing and consent of instructor.
Experience in the organization of and methods for the activity component of a course in kinesiology. A written report is required for KIN 587 students.
Undergraduates register in KIN 487; graduates register in KIN 587. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open for credit to graduate students with credit in KIN 487. (Conference 1 hour, Laboratory 2 hours per unit.)

## 488./588. Clinical Basis of Kinesiotherapy (3)

Prerequisites: Completion of Bachelor's degree in Kinesiology, Physical Therapy, Exercise Physiology, or Kinesiotherapy and admission into the Kinesiotherapy Certificate Program and successful completion of a course(s) in pathological and neurological foundations of rehabilitation or approval of the Director of the Kinesiotherapy Certificate Program.
The theoretical foundations of clinical practice in Kinesiotherapy. Letter grade only (A-F).

## 489. Field Work in Physical Activity Settings (1-3)

Prerequisite: Completion of Kinesiology course requirements for the major Option in which field work is taken.
Supervised practice in working with individuals or small to large groups in public or private agencies and schools.
Credit/No Credit grading only. May be repeated to a maximum of 9 units.

## A. Fieldwork in Adapted Physical Education

B. Fieldwork in Athletic Coaching
C. Fieldwork in Athletic Training

## D. Fieldwork in Fitness

Additional Prerequisites: KIN 467, completion of 200 hours in a corporate fitness setting, 200 hours in a traditional fitness setting, and 100 hours of approved fitness experience. Open to Fitness Option students in Kinesiology only. Supervised fitness experience in working with individuals or small to large groups in public or private agencies.

## F. Fieldwork in Kinesiotherapy

G. Fieldwork in Motor Development

## K. Fieldwork in Wilderness Studies

Additional Prerequisites: KIN 242, 244, 246 or 247, 243B or 243C or 245 . Completion or corequisite of KIN 448 , certification in CPR and First Aid, and consent of instructor. Supervised experience and practice working with individuals and groups in public/private agencies and schools involved in wilderness activities. May enroll in 1-3 units of fieldwork. Each unit is equivalent to 40 hours of fieldwork assignment. 120 hours minimum required for 3 units, of which at least 40 hours with CSULB Wilderness Studies Program. Balance of hours with public/private agencies.
490A. Clinical Practicum in Athletic Training (2)
Prerequisites: Consent of instructor and Grade of "B" or better in KIN 207; satisfactory completion of CSULB ATEP Physical Exam Form and satisfactory completion of CSULB ATEP Technical Standards Form.
Supervised clinical experiences in athletic training. Designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. Requires the completion of a minimum of 150 hours of clinical experience performed under the supervision of an BOC Approved Clinical Instructor.
Credit/No Credit grading only.

## 490B. Clinical Practicum in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of KIN 490A; satisfactory completion of CSULB ATEP Physical Exam Form and satisfactory completion of CSULB ATEP Technical Standards Form.
Continuation of laboratory and clinical experiences designed to provide formal instruction and evaluation in Entry Level Athletic Training Clinical Proficiencies. Requires completion of 300 hours minimum clinical experience performed under supervision of an BOC Approved Clinical Instructor
Credit/No Credit grading only.

## 490C. Clinical Practicum in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of KIN 490B.
Continuation of laboratory and clinical experiences designed to provide formal instruction and evaluation in Entry Level Athletic Training Clinical Proficiencies. Requires completion of 300 hours minimum clinical experience performed under supervision of a BOC Approved Clinical Instructor
Credit/No Credit grading only.

490D. Clinical Practicum in Athletic Training (2).
Prerequisites: Consent of instructor and successful completion of KIN 490C; Continuation of laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. Requires the completion of a minimum of 300 hours of clinical experience performed under the supervision of an BOC Approved Clinical Instructor.
Credit/No Credit grading only.

## 490E. Clinical Practicum in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of KIN 490D; Continuation of laboratory and clinical experiences designed to provide students with formal instruction and evaluation in the Entry Level Athletic Training Clinical Proficiencies. This course requires the completion of a minimum of 300 hours of clinical experience performed under the supervision of an BOC Approved Clinical Instructor
Credit/No Credit grading only.

## 494./594. Exercise Science Internship (3)

Prerequisites: Upper-division or graduate standing with a grade of "B" or better in KIN 300 for a biomechanics internship or KIN 301 for an exercise physiology internship or KIN 312 for a motor control and learning internship; consent of instructor required prior to registration.
Povides practical experience in applying exercise science concepts in a fieldwork setting such as cardiac rehabilitation in a medical setting.
Upper-division undergraduate students register in KIN 494;
Graduate students register in KIN 594. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 495./595. Supervised Laboratory Methods (1-3)

Prerequisites: Upper division or graduate standing and consent of instructor.
Provides experience in the methods of the laboratory component for a Kinesiology course, for example, assisting students with their experiments and laboratory reports.
Undergraduates register in KIN 495; graduates register in KIN 595. A written report is required for KIN 595 students. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open for credit to graduate students with credit in KIN 495. (Conference 1 hour, Laboratory 2 hours per unit.) May be repeated to a maximum of 4 units.

## *497. Independent Study (1-3)

Prerequisites: Major or minor in physical education, senior status and consent of Kinology Department.
Student will conduct independent library or laboratory research under the supervision of a faculty member and write a report of the investigation.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
*499. Special Studies (1-3)
Group investigation of topics of current interest in kinesiology or athletics. Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.

## GRADUATE LEVEL

511. Sports Marketing, Development, and Fund Raising (3)

Prerequisites: Graduate standing and a Baccalaureate Degree in Kinesiology/Physical Education or related field and admission to the Kinesiology Graduate Sports Management Program.
Provides students with an overview of sport marketing. It presents basic marketing terminology and discusses the application of marketing concepts to the development and promotion of the business of sport.
Letter grade only (A-F).

## 512. Legal and Ethical Issues in Sport (3)

Prerequisites: Graduate standing; admission into the Kinesiology Graduate Sport Management Program.
Examines the legal and ethical issues associated with managing sport.
Letter grade only (A-F).
513. Personnel and Facility Management in Athletics (3)

Prerequisites: Graduate standing admission into the Kinesiology Graduate Sport Management Program.
Examines the principles and practices associated with managing personnel and facilities in interscholastic, intercollegiate, amateur, international, and professional sport.
Letter grade only (A-F).

## 514. Sport Finance

Prerequisites: Graduate standing; admission into the Kinesiology Graduate Sport Management Program.
Discusses financial management principles for use in interscholastic, intercollegiate, amateur, international, and professional sports. Special emphasis is placed on understanding various means by which sport organizations control costs and increase revenue. Letter grade only (A-F).

## 521. Foundations of Sport Management (3)

Prerequisite: EDSS 450P or equivalent, or teaching experience (including student teaching).
Introduces students to the business of sport and the functional areas of Sport Management. Discusses the leadership/supervisory philosophies, principles, and practices of managing interscholastic, intercollegiate, amateur, international, and professional sport.

## 522. Non-Traditional Activities in K-12 Physical Education

 (3)Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
Plan, implement, and evaluate nontraditional games and activities. Emphasis is on meeting needs of diverse populations, including students with disabilities, problem- solving, assessment, safety and injury prevention, ethical issues, group discussion, analysis of school outdoor educational experiences.
Letter grade only (A-F).

## 523. Theory and Practice of College Teaching in Kinesiology (3) <br> Prerequisite: Graduate standing.

Designed to enhance the teaching knowledge and skills of persons who aspire to become or are currently college and university instructors of kinesiology through an examination of the principles and techniques of adult education associated with the discipline.
Letter grade only (A-F).

## 524. Analysis of Teaching in Physical Education (3)

Analysis of teachers and teaching in physical activity environment: focus on developing observational competencies, analysis of research completed and future research designs.

## 525. Instructional Design in Physical Education (3)

Prerequisites: Undergraduate major in physical education, EDST 300.

A systems approach to designing instruction for the physical education program.

## 526. Applied Behavior Analysis in Physical Education (3)

Application of applied behavior analysis principles to physical education (sport) with particular emphasis on single subject research designs and behavior analysis in the physical education setting.
527./427. Physical and Motor Assessment (3)

Prerequisites: KIN 315 or equivalent and KIN 320 or equivalent. Upper-division undergraduate or Graduate standing.
Includes the selection, evaluation, administration and interpretation
of various tests used in the physical and motor assessment practices of individuals with disabilities.
Consent of instructor required for graduate students prior to registration. Requirement toward the Adapted Physical Education Specialist Credential. Upper-division students register in KIN 427; Graduate students register in KIN 527. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

## 528. Promoting Physical Activity and Fitness in K-12 Physical Education (3)

Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
Develop physical education program plans that are in compliance with California State Content Standards for promoting physically active lifestyles and healthy physical fitness levels for all children, including those with special needs.
Letter grade only (A-F).

## 530. Neuromotor Control (3)

Prerequisites: Graduate standing, KIN 312 or equivalent.
Study of the neurological and muscular contributions to the control of human movement with emphasis on application of concepts to sports, physical activity, and human factors. Instruction is directed toward understanding the fundamental principles of motor control. Letter grade only (A-F).

## 537. Physical Education for Special Populations (3)

Foundations in the organization and conduct of Adapted Physical Education.
538./438. Motor Dysfunction and the Exceptional Person (3)

Prerequisite: A basic undergraduate course in Adapted Physical Education or its equivalent.
Recognition, analysis, assessment and remediation of movement problems in a child with minor nervous system dysfunctions.

## 540. Biomechanical Factors in Human Movement (3)

Prerequisite: KIN 300 or equivalent.
Study of film, video and force plate data collection for human movement evaluation, including data smoothing techniques. Quantitative kinematic and kinetic analysis examples including gait, jumping and lifting activities. Comparison of 2D versus 3D analyses of movement activities.
Letter grade only (A-F).

## 541./441. Applied Biomechanics: Lifting and Work Capacity (3)

Prerequisite: KIN 300 or equivalent (Trigonometry and PHYS 100A recommended).
Study of the mechanical properties of bone, ligament, tendon, and skeletal muscle. Development and description of selected biomechanical models with application to the evaluation of weight-lifting and rehabilitation exercises, as well as occupational lifting tasks. Critical analysis of methods used to develop and test strength.
Letter grade only (A-F).

## 546. Developmental Aspects of Motor Behavior (3)

Prerequisite: KIN 315 or equivalent.
The study of major factors which contribute to the development of motor skillfulness from birth to maturity.
Letter grade only (A-F).
550. Instrumentation in the Exercise Sciences (3)

Prerequisites: Graduate standing and KIN 301 or equivalent.
Study of the theory and operation of equipment typically found in the exercise science laboratory. Instrumentation included are those used for the assessment of cardiopulmonary function, body composition, and muscular strength and power.
Letter grade only (A-F).

## 551. Advanced Exercise Physiology (3)

Prerequisites: KIN 301 or equivalent and BIOL 207 or equivalent. Advanced concepts in exercise physiology. Letter grade only (A-F).
552. Physiology of Exercise Testing and Training (3) Prerequisites: KIN 301 or equivalent and BIOL 207 or equivalent.
Physiological principles of exercise testing and exercise training in healthy individuals and patients with diseases such as coronary artery disease.
Letter grade only (A-F).
553. Environmental Aspects of Human Performance (3)

Prerequisites: Graduate standing; KIN 301 or equivalent with a grade of "C" or better or consent from the instructor.
Study of the physiological responses and adaptations associated with exposure to environmental stressors including heat, cold, microgravity, air pollution, and elevated and reduced atmospheric pressures. Emphasis will be placed upon physical performance and its limitations under various environmental conditions.
Letter grade only (A-F).

## 560. Health Related Problems in Sport (3)

Prerequisites: KIN 207 and 301 or their equivalents and BIOL 207 and 208 or their equivalents.
Examination of health problems related to engaging in vigorous physical activity.
Letter grade only (A-F).

## 561. Musculoskeletal Injuries in Sport (3)

Prerequisites: KIN 207 and 300 or their equivalents and BIOL 208 or its equivalent.
An in-depth study of the most prevalent musculoskeletal injuries occurring in sports activities, including mechanisms, tissue responses, and management procedures.
Letter grade only (A-F).
562./462. Advanced Strength and Conditioning (3)

Prerequisites: KIN 300, 301.
Study of biomechanical and kinesiological factors which are important in understanding the function and proper techniques for execution of a wide variety of standard and advanced weight training exercises. Physiological bases for strength training and adaptations caused by different training regimes are emphasized. Letter grade only (A-F).

## 565./465. Clinical Exercise Electrocardiography (3)

Prerequisites: BIOL 207, KIN 301, and/or consent of instructor.
Study physiology and patho-physiology of electrical activity of the heart. Instruction directed toward pattern recognition of normal and abnormal resting and exercise electrocardiograms.

## 566./466. Biochemical and Hormonal Adaptations to

 Physical Activity (3)Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration.
Study of biochemical and hormonal changes that occur as a result of acute and chronic physical activity. Emphasis on application of concepts to development of exercise training programs.
Upper-division undergraduate students register in KIN 466; graduate students register in KIN 566. Letter grade only (A-F). Same course as NUTR 566.

## 571./471. Biofeedback Applications in Sport and Exercise Science (3)

Prerequisites: Upper-division or graduate standing and consent of instructor.
Application of biofeedback in: 1) enhancing athletic performance; 2 ) in developing exercise and bodybuilding skills; and 3) preventing sport and exercise-related injuries.

Undergraduates register in KIN 471; graduates register in KIN 571. A written report is required for KIN 571 students. Letter grade only (A-F).
572./472. Applied Sport and Exercise Psychology (3)

Prerequisites: Upper division status and consent of instructor or graduate standing.
Application of psychological skills and interventions to enhance athletic performance and exercise adherence.

## 573. History of Sport in the U.S.A. (3)

Prerequisite: KIN 335 or equivalent.
An analysis of the history of American sport as it reflects the dominant themes in American society.

## 574. Contemporary International Sport (3)

Investigation of contemporary international sport in various world cultures.

## 575./475. Psychology of Coaching (3)

Current topics of psychological concern and application as related to athletic performance.

## 577. Sport in U.S. Culture (3)

Prerequisite: KIN 332I or equivalent.
Analysis of physical activities in U.S. culture. Consideration of the relationships between sports and games and the factors of status, values, environment and cultural change.

## 580. Computer Applications in Physical Education (3)

Prerequisites: Graduate standing, consent from instructor. Introduction to computer hardware and software used in Kinesiology including DOS/Windows and Apple Macintosh operating systems.
Topics include: hardware, operating systems, word-processing, spreadsheets, data exchange, presentation graphics/authoring tools, and video capture. Emphasis will be placed on integrating the use of hardware and software into a variety of Physical Education environments.
587./487. Supervised Activity Instruction Experience (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor.
Experience in the organization of and methods for the activity component of a course in kinesiology and physical education.
Undergraduates register in KIN 487; graduates register in KIN 587. A written report is required for KIN 587 students. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open for credit to graduate students with credit in KIN 487. (Conference 1 hour, Laboratory 2 hours per unit.)
588./488. Clinical Basis of Kinesiotherapy (3)

Prerequisites: Completion of Bachelor's degree in Kinesiology, Physical Therapy, Exercise Physiology, or Kinesiotherapy and admission into the Kinesiotherapy Certificate Program and successful completion of a course(s) in pathological and neurological foundations of rehabilitation or approval of the Director of the Kinesiotherapy Certificate Program.
The theoretical foundations of clinical practice in Kinesiotherapy. Letter grade only (A-F).
588L. Kinesiotherapy Clinical Training I Laboratory (6) Corequisite: KIN 588.
Instruction and observation at the Long Beach Veterans Administration Medical Center.
589. Kinesiotherapy Clinical Training II (3)

Prerequisite: Satisfactory completion of KIN 588.
Theory and practice of kinesiotherapy techniques in a medical center setting. 500 hours of instruction and observation at Long Beach Veterans Administration Medical Center.

589L. Kinesiotherapy Clinical Training II (3)

Corequisite: KIN 589.
Laboratory instruction and observation at the Long Beach Veterans Administration Medical Center.

## 590. Statistical Analysis and Measurement in Kinesiology and Physical Education (3) <br> Prerequisites: EDSE 421, EDSS 450P or 450W, KIN 483 or equivalent.

Introduces students to the logic and application of basic descriptive and inferential statistics (i.e., correlation, regression, and analysis of variance) and includes a critical analysis of selected research publications.
Required of all master's degree candidates. To be completed within first 12 units of 500-600 series courses.

## 591. Field Studies in Sport Event Management (3)

Prerequisites: Graduate standing; admission to the Kinesiology Graduate Sports Management Program.
Practical field-based course requires students to complete
15 hours of classroom seminar instruction and 120 hours of supervised practical experience in a managed sport setting. Letter grade only (A-F).

## 592A. Sports Management Internship (3)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; KIN 521 or 685; approval of Intern Coordinator.
A minimum of 20 hours per week for 16 weeks of supervised work experience in an approved sport management/administrative setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity.
Note: 6 units in one semester may not be taken if student is full-time employed. May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 592B. Sports Management Internship (6)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; KIN 521 or 685; approval of Intern Coordinator.
A minimum of 40 hours per week for 16 weeks of supervised work experience in an approved sport management/administrative setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity.
Note: May not be taken if student is full-time employed. Letter grade only (A-F).

## 593A. Coaching Internship (3)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; advancement to candidacy and approval of Intern Coordinator.
A minimum of 20 hours per week for 16 weeks of supervised work experience in an approved coaching setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity.
Note: 6 units in one semester may not be taken if student is full-time employed. May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 593B. Coaching Internship (6)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; advancement to candidacy and approval of Intern Coordinator.
A minimum of 40 hours per week for 16 weeks of supervised work experience in an approved coaching setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity.
Note: May not be taken if student is full-time employed. Letter grade only (A-F).
594./494. Exercise Science Internship (3)

Prerequisites: Upper-division or graduate standing with a grade of "B" or better in KIN 300 for a biomechanics internship or KIN 301 for an exercise physiology internship or KIN 312 for a motor control and learning internship.
Provides a minimum of 120 hours of practical experience in applying exercise science concepts in a fieldwork setting. The internship will provide such experiences as conducting the biomechanical/ physiological exercise testing and/or leading the exercise training of selected subject populations such as patients undergoing cardiac rehabilitation, asymptomatic adults, and athletes.
Consent of instructor required prior to registration.
Upper-division undergraduate students register in KIN 494; Graduate students register in KIN 594. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 595./495. Supervised Laboratory Methods (1-3)

Prerequisites: Upper division or graduate standing and consent of instructor.
Experience in the organization of and methods for a laboratory in kinesiology and physical education. Includes assisting students with their experiments and laboratory reports.
Undergraduates register in KIN 495; graduates register in KIN 595.) A written report is required for KIN 595 students. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open for credit to graduate students with credit in KIN 495. (Conference 1 hour, laboratory 2 hours per unit) May be repeated to a maximum of 4 units.

## 596. Practicum in Physical Education Pedagogy (3)

Prerequisites: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
Students equired to evaluate their teaching and provide documentation they are addressing of physical education standards for individuals ages 3-18 established by National Board for Teacher Certification (NBPTS). Students are also required to apply concepts associated with physical education subdisciplines to instructional issues.
Letter grade only (A-F).
597. Independent Research (1-3)

Prerequisites: Consent of Kinesiology faculty member and graduate advisor.
Independent research under the guidance of a faculty member. Varied learning activities utilized to achieve competency related to Physical Education not offered in regular classes.
Written report required. Letter grade only (A-F). (Independent Study)

## 630. Seminar in Motor Learning (3)

Prerequisites: KIN 312, 590 and 696 (may be taken concurrently). Identification and analysis of motor learning principles and theories applicable to training, learning, and rehabilitation in sport, physical education, recreation, and therapeutic settings.
633. Seminar in Sport Psychology (3)

Prerequisites: KIN 332 or equivalent and PSY 100; teaching or coaching experience (including student teaching).
Study of psychological theories and their relationship to human behavior in sport and other physical activity settings.

## 638. Seminar in Trends in Adapted Physical Education (3)

Prerequisite: KIN 537 or 538, or equivalent.
An examination and analysis of the current trends in Adapted Physical Education.

## 671. Seminar in Current Trends and Issues in Kinesiology

 (3)Prerequisite: Graduate standing.
Examines current trends and issues in Kinesiology, develop and defend personal perspective on significant issues, and identify problems and develop plans for problem-solution In organizational/ professional contexts.
Letter grade only (A-F).
685. Seminar in Athletics (3)

Experience in the field. Special problems related to the administration of an athletic program including current issues and practices and supervised research in selected areas.

## 695. Seminar In Professional Literature (3)

Prerequisites: KIN 590, 696.
Critical analysis and synthesis of professional literature in
Kinesiology.
Required of all candidates not electing thesis option.
696. Research Methods (3)

Prerequisite: Undergraduate major in Kinesiology, Physical Education, or related field.
Presents diverse methodological approaches to contemporary problems in Kinesiology, research design, data collection, and analysis.
Required of all Master's degree candidates. To be completed within the first 12 units of 500-600 series courses.

## 697. Directed Studies (1-3)

Prerequisites: KIN 590, 696, advancement to candidacy.
Research in an area of specialization under the direction of a faculty member.

## 698. Thesis/Project (1-4)

Prerequisites: KIN 590, 696, advancement to candidacy.
Planning, preparation and completion of an approved thesis/ project.
699. Seminar in Selected Topics (3)

Intensive study of salient problems of current professional importance to experienced physical educators.
May be repeated to a maximum of 6 units with different topics. Topics to be announced in the Schedule of Classes.

## LATIN AMERICAN STUDIES

College of Liberal Arts

## Director

Norma Stoltz Chinchilla

## Phone

(562) 985-4760

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PSY 131
Assistant Directors
Alicia del Campo
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Affiliated Faculty

## Professors

Luis Arroyo (Chicano and Latino Studies), Roland E. Bush (Comparative World Literature), Norma Stoltz Chinchilla (Women's Studies/Sociology), Margaret Costa (Kinesiology), Alejandra Cox Edwards (Economics), Jim Curtis (Geography), Jayne Howell (Anthropology), José López (Chicano and Latino Studies), Claire E. Martin (Romance, German, Russian Languages and Literatures), Carlos Piar (Religious Studies), José Sánchez (Film and Electronic Arts), John Tsuchida (Asian and Asian American Studies)

## Associate Professors

Alicia Del Campo (Romance, German, Russian Languages and Literatures), Gary Hytrek (Sociology), Jill Pinkney Pastrana (Educational Psychology), Raúl Reis (Journalism), José Rodríguez (Communication Studies), Victor Rodríguez (Chicano and Latino Studies), Anna Sandoval (Chicano and Latino Studies), Carlos Silveira (Art Education)

## Assistant Professors

Grace Delgado (Chicano and Latino Studies), Bonnie Gasior (Romance, German, Russian Languages and Literatures), Liesl Haas (Political Science), Catherine Komisaruk (History), Javier López-Zetina (Health Sciences)

## Certificate in Latin American Studies (code COLACT01)

Latin American Studies administers an interdisciplinary program which offers students interested in this field the opportunity to pursue courses leading to a Certificate in Latin American Studies. Courses used to meet this certificate requirement may be counted also, where applicable, toward the General Education requirements, and the major or minor requirements of the cooperating departments.

## Requirements

1. The following are the requirements for the Latin American Studies Certificate Program:
A. Bachelor's Degree with major in a traditional discipline; may be completed concurrently with certificate.
B. Successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to area of concentration.
C. Must consult with and receive approval from program advisor.
2. Instruction Program (24 units) may be completed concurrently, distributed as follows:
A. Core (Required of all students) 3 units. Choose either LAS/HIST/SOC 161 or SPAN 445.
B. Electives: 21 additional units from the following courses, selected from at least two disciplines. Cannot duplicate courses taken in the core: ANTH 323, 324, 345, 440*, 490*, 499*; AH 457/557, 458/558, 459/559 CHLS 352, 380, 395, 400, 420, 490*, 499*; CWL 440, 499*; ECON 490*, 499*; FEA 392C; GEOG 320; HIST362, 364, 366, 461, 462, 463, 466A, 466B, 466C, 490*, 495*, 498*; LAS 161/HIST 161/SOC 161; POSC 358, 359, 481, 497*, 499*; SOC 341, 490*, 499; SPAN341, 441, 445, 490*, 492, 495*, 550
*Special Topics and Independent Study courses in the area of Latin American Studies (including Short Term Study Abroad) must be approved by the advisor.

## Minor in Latin American Studies (code HISTUM03)

The Minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of Latin America. The minor's flexible program of study is ideal for students interested either in intellectual enrichment or professional development in their major. Courses used to meet this minor requirement may be counted also, where applicable, toward General Education requirements, and the major or minor requirements of the cooperating departments.

## Requirements

1. The following are the requirements for the Latin American Studies minor.
A. Successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to student's area of concentration or equivalent fluency as determined by program advisor.
B. Consultation with program advisor, including formal declaration of minor, and application for graduation.
2. Completion of 21 units distributed as follows:
A. Core (required of all students) 3 units. Choose either LAS 161/HIST 161/SOC 161 or SPAN 445.
B. Electives: 18 additional units from the following courses, selected from at least two disciplines: ANTH 323, 324, 345, 440*, 490*, 499*; AH 457/557, 458/558, 459/559 CHLS 352, 380, 395, 400, 420, 490*, 499*; CWL 440, 499*; ECON 490*, 499*; FEA 392C; GEOG 320; HIST362, 364, 366, 461, 462, 463, 466A, 466B, 466C, 490*, 495*, 498*; LAS 161/HIST 161/SOC 161; POSC 358, 359, 481, 497*, 499*, SOC 341, 490*, 499; SPAN 341, 441, 445, 490*, 492, 495*, 550
*Special Topics and Independent Study courses in the area of Latin American Studies (including Short Term Study Abroad) must be approved by the advisor.

## Courses (LAS)

## LOWER DIVISION

## 161. Introduction to Latin American Studies

Prerequisite: Completion or concurrent enrollment in ENGL 100. Interdisciplinary overview of history, society, and culture in Latin American - Mexico, Central America, the Caribbean, and South America. Examines political, economic, social and cultural conditions that have produced conflict, change, and continuity in Latin America over the last five hundred years.
Same course as HIST 161 and SOC 161.

## LEGAL STUDIES

College of Liberal Arts

## Director

Albie Burke (History)

## Telephone

(562) 985-4458

## Certificate in Legal Studies (code COLACT03)

The Certificate Program in Legal Studies is designed for students who are interested in the study of law as a cultural product and as a field of critical inquiry. It is not a professional program in para-legal education. The certificate may be earned in conjunction with any baccalaureate degree and should be especially useful to those preparing for careers in government service, business, journalism and education. Courses taken in the program may be used to satisfy major, minor, other credential or general education requirements. No more than 12 units, however, may be in the candidate's major.

The Legal Studies Certificate may be earned concurrently with or following the award of the baccalaureate degree from CSULB or another accredited institution. See pp. 102 and 114.

## Requirements

Twenty-four total units distributed as follows:

1. Twenty-one units which must include HIST 308I and an additional 18 units from the courses listed below. The courses taken in the program must be from a minimum of three departments. The selection of courses is made by the student in consultation with an adviser in the program;
2. Project paper (3 units). To be written during the senior year under the supervision of a faculty member participating in the Certificate Program. The paper can be either an exploratory project (in which a subject is researched in a detailed and original manner) or an analytic effort (where fewer sources are used but the discussion of the material is developed more fully).

## Legal Studies Courses

ASAM 346; B/ST 332; CRIM 301, 351; ECON 355;
BLAW 220, 320; HIST 306I, 308I, 479, 480, 489; PHIL 352,
451I, 452I; POSC 311, 312, 318, 376, 412, 414, 419; SW
350; COMM 441I; WIST 308.
Persons interested in the Program for Legal Studies should contact Dr. Albie Burke, Director, Department of History.

## Chair

Daniel J. O'Connor

## Advisors

Nancy Brown
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Faculty
Professor
Kenneth R. Curtis
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## Assistant Professors

Gervacio Brondial, Timothy Keirn, Catherine Martin-Dunlop, Daniel J. O'Connor, Nancy Sheley, Jessica Zacher, Carol Zitzer-Comfort

Office Coordinator
Estela Montiel

View the College of Education website at www.ced.csulb.edu

## Bachelor of Arts in Liberal Studies (120 units)

The Liberal Studies major provides a rich, rigorous crossdisciplinary liberal arts program of study. There are three programs in the major: 1) The Integrated Teacher Education Program (ITEP) is for students intending to become teachers who wish to combine subject matter preparation for elementary teaching with coursework leading to a Multiple Subject teaching credential; 2) Track I is for students who seek subject matter preparation for elementary teaching as preparation for a post-baccalaureate credential program;
3) Track II is for students with more varied professional or career goals who prefer a sound generalist program to one requiring early specialization. The Track II program is in the process of being discontinued and is no longer admiting new students.

## General Education and the Liberal Studies Major

The General Education requirements for students majoring in Liberal Studies are unique. The Liberal Studies program is not only an approved major, but also an approved alternate general education program. In completing the Liberal Studies major, students concurrently satisfy their general education requirements. Students changing to another major from Liberal Studies, however, will be subject to the standard university General Education requirements and will want to consult the Academic Advising Center for G.E. advising.

## The Liberal Studies Program

The Liberal Studies Integrated Teacher Education Program (ITEP) combines the study of academic subject matter for elementary school teaching with professional preparation and student teaching. Successful completion of ITEP includes both a Bachelor of Arts degree and a Multiple Subject teaching credential.

The program of study for the Liberal Studies Track I and Track II majors is composed of two parts: Core and Concentration.

Track I of the Liberal Studies program is designed for those students who wish to pursue a Bachelor of Arts degree to prepare them in the academic subject areas relevant to elementary and special education teaching. Track I is an approved pre-professional program of subject matter preparation consistent with the standards established by the California Commission on Teacher Credentialing.

Track II of the Liberal Studies program is designed for those students who seek a rich, non-specialized, multidimensional and cross-disciplinary course of study as a foundation for life-long learning, enlightened citizenship, and a wide range of academic and career opportunities. The Track II program is in the process of being discontinued and is no longer admiting new students.

## INTEGRATED TEACHER EDUCATION PROGRAM

## Bachelor of Arts in Liberal Studies (code L/STBA04)

## Multiple Subject Credential - Cross Cultural and Academic Development Emphasis (code 200)

The Integrated Teacher Education Program (ITEP) combines the study of academic subjects aligned to California standards for the K-8 curriculum with professional preparation courses and field experiences leading to a Multiple Subject Credential.

Upon successful completion of the program, students will receive both a Bachelor of Arts in Liberal Studies and a Preliminary Multiple Subject Credential. Within the Integrated Teacher Education Program there are 107 units of required baccalaureate-level coursework and 28 units of credentialspecific coursework.

Students in the ITEP program who do not advance to the Credential portion of the program will be eligible to receive a B.A. in Liberal Studies Track I and may apply for admission to the post-baccalaureate Multiple Subject Credential Program.

There are multiple pathways to the teaching profession. ITEP is designed for students who begin their undergraduate education at CSULB or who transfer into the University in pursuit of both a baccalaureate degree as well as a Multiple Subject teaching credential. Prospective credential candidates who already hold a bachelor's degree, or who need information about other pathways and options in teacher credentialing, should refer to the sections of this
catalog which describe programs in Teacher Education, Single Subject Teacher Education, and Educational Psychology, Administration and Counseling. Further information about teacher preparation programs can also be obtained from the College of Education at (562) 985-9259 or by e-mail: cedinfo@csulb.edu or online at www.ced.csulb. edu.

## General Education and the Integrated Teacher Education Program

As with other Liberal Studies majors, students in the Integrated Teacher Education Program have unique General Education requirements. ITEP is not only an approved major, but an approved alternate general education program. ITEP students receive their General Education advisement within the Liberal Studies office. In completing ITEP, students concurrently satisfy their general education requirements. Students changing their major from ITEP to a major other than Liberal Studies, however, will be subject to the standard University General Education requirements and will want to consult the Academic Advising Center for G.E. advising.

## The ITEP Curriculum

The ITEP curriculum has two interrelated components. Students complete required coursework in the ITEP Core and they complete coursework in the methodology of teaching, including student teaching. Admission to this final, credential portion of the program requires that students apply and be accepted into the Multiple Subject Credential Program at CSULB. In addition, a minimum of 125 hours of service learning, coordinated by the SERVE Program in the College of Education, must be completed prior to graduation. All courses in the ITEP core must be completed with a grade of " C " or better.

## Admission to the Multiple Subject Credential Program

Prior to enrollment in EDEL 300, ITEP students must be formally admitted into the Multiple Subject Credential Program (MSCP). Students should apply to the MSCP during the semester prior to enrolling in EDEL 300. Admission to the MSCP requires that the candidate: 1) purchase the MSCP for ITEP Handbook; 2) complete EDEL 200; 3) attempt the California Basic Educational Skills (CBEST) examination; 4) attain a cumulative grade point average of at least 2.67 or 2.75 in the last 60 units of study; 5) submit a portfolio which includes a SERVE evaluation as well as a typed personal statement describing why you have chosen teaching as a career, what you hope to accomplish as a teacher, and how you view the role of the teacher; 6) attend an interview panel; 7) submit a negative tuberculosis skin test or chest X-ray taken within the last three years. Note: The California Subject Examinations for Teachers: Multiple Subjects (CSET) must be passed to advance to student teaching. All ITEP credential courses must be completed with a GPA of 3.0 or higher and no individual grade lower than "C."

## The ITEP Core

A minimum of 106 units distributed in Areas I, II, III, IV, V, VI and VII. No Core classes may be taken Credit/No Credit.

Area I: Language Studies (minimum 22 units)
Group 1. Composition in English: Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100
Group 2. Applied Composition: ENGL 309
Group 3. Oral Communication in English: Choose one course from COMM 130, 335
Group 4: Survey of Literature: Choose one course from ENGL 180, 184, 250 A or B, 270 A or B, 375
Group 5. Children's Literature: ENGL 481
Group 6. Language Acquisition: Choose one course from CD 329, EDSP 454, LING 329
Group 7. Integration and Assessment: L/ST 400
Area II: Mathematics (minimum 12 units)
Group 1. Probability and Activities-Based Statistics: MTED 105
Group 2. Real Numbers: MTED 110
Group 3. Geometry and Measurement: MTED 211 or 312
Group 4. Integration and Assessment: MTED 402
Area III: Natural Science (minimum 15 units)
Group 1. Physical Science: CHEM 105, PHSC 112
Group 2. Earth Science: Choose from: GEOL 102+104 or $106^{*}$ (*GEOL 106 is the preferred course)
Group 3. Life Science: BIOL 200
Group 4. Integration and Assessment: SCED 401
Area IV: History/Social Science (minimum 19 units)
Group 1. American History: Choose one course from HIST 172, 300
Group 2. California History: HIST 473
Group 3. American Institutions :Choose one course from POSC 100, 326*, 391 (*POSC 326 is limited to and only required of students who have met the U.S. Constitution requirement in a state other than California or through Advanced Placement credit and who must meet the Title V California State and Local Government requirement.)
Group 4. Multicultural Dimensions: Choose one course from AIS/ASAM/BST/CHLS/ 215, AIS/ ASAM/BST/ CHLS/WST 319, ANTH 421/LING 425
Group 5. World History/Geography: Take either HIST/ GEOG $250^{*}$, or HIST $211+$ GEOG 100 (*HIST/GEOG 250 is the preferred course)
Group 6. Integration and Assessment: L/ST 471
Area V: Arts and Humanities (minimum 15 units)
Group 1. Music: MUS 180
Group 2. Visual Art: ART 300
Group 3. Dance or Theater: Choose one course from: CWL 124, 324I, DANC 110, 179, THEA 113, 122, 124, 324I
Group 4. Ethics, Values and Beliefs: Choose one course from PHIL 100, 160, 160W, 203, 204, 405I, R/ST 100, 202, 485
Group 5. Integration and Assessment: L/ST 404
Area VI: Critical Issues in Teaching and Learning (minimum
16 units)
Group 1. Information and Technology Competencies: Choose one course from ETEC 110*, 444 (*ETEC 110 is the preferred course)
Group 2. Critical Thinking: Choose one course from: A/ST 190, COMM 131, ENGL 102, HIST 101, PHIL 170, POSC 105, PSY 130
Group 3. Family and School Partnerships: EDP 355

Group 4. Child Development and Learning: Choose one course from: EDP 301, HDEV 3071
Group 5. Physical Education: KIN 476
Group 6. Health Science: H SC 411A
Area VII: Introduction to Elementary Education (Minimum 7 units)
Group 1. Teaching and Learning: EDEL 100, 200, 300

## Credential Coursework in ITEP

(Minimum 28 units)

1. Teaching and Learning Reading, K-8: EDEL 452
2. Teaching and Learning Mathematics, K-8: EDEL 462
3. Teaching and Learning Social Science in Diverse Classrooms, K-8: EDEL 472
4. Teaching and Learning Science, K-8: EDEL 475
5. Student Teaching in Diverse Classrooms: EDEL 482D

## Student Teaching in ITEP

As the final phase of the credential program, student teaching is a half-day for four days and a full day for one day per week for two semesters. All student teachers have one placement in a K-2 classroom and one in a 3-6 classroom.

A separate application is required to advance to student teaching. Applications for student teaching must be submitted in person to the Field Programs Office one semester prior to the first assignment. Application packets are distributed at the Student Teaching Application meetings, which are held during the first two weeks of each semester. Dates, times, and locations are announced in methods courses, are posted throughout the ED1 and ED2 buildings and appear on the Department of Teacher Education Website well in advance of actual meeting dates. Deadlines for submitting applications to student teach are:

March 1-to begin student teaching in the Fall semester
October 1-to begin student teaching in the Spring semester.
Students should note that these deadlines are firm. Late applications are not accepted.

Students must meet the following requirements to advance to student teaching:

1. Demonstration of subject-matter competence by passage of all three parts of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
2. Passage of the California Basic Educational Skills Test (CBEST).
3. A negative tuberculosis skin test or chest x-ray valid through the completion of student teaching.
4. Proof of character clearance (fingerprint background check).
5. Completion of professional preparation courses (in the MSCP) with a grade-point-average of 3.0 in all subjectspecific pedagogy (methods) courses with no grade lower than "C."
6. Submission of a Student Teaching Application by the appropriate deadline.

## Asian Language BCLAD

## Requirements

The Bilingual Cross-Cultural Language and Academic Development (BCLAD) Emphasis authorizes teachers to work in dual language classrooms or where a language other than English is required for instruction, support, and communication
with parents and other professional communication. The BCLAD Asian Language Emphasis is part of a six campus CSU consortium offering BCLAD preparation and certification in Cambodian (Khmer), Chinese (Mandarin or Cantonese), Korean, or Vietnamese. Courses are taken at CSULB and at other area CSU campuses.

Students seeking dual language certification in Asian Languages must complete the ITEP program requirements. They also must fulfill the following additional requirements in one of the Asian language emphases (Mandarin or Cantonese, Khmer, Korean, Vietnamese):

1. Culture of Emphasis (one of the following, 3 units):

Chinese: EWS 301, Ethnic Identity: Chinese Americans (Cal Poly Pomona)
Cambodian: ASAM 334, Cambodian American Experience (CSU Long Beach)
Korean: AAS 450, The Asian American Child and the Schools (CSU Northridge)
Or TED 495 Introduction to Korean Culture \& Korean American Communities (CSU Dominguez Hills)
Vietnamese: ASAM 333 Vietnamese American Experience (CSU Long Beach)
2. Bilingual Pedagogy in the Language of Emphasis (one of the following, 3 units):
Chinese: EDEL 400 Proseminar: Curriculum and Teaching of Reading (CSU Los Angeles)
OR EDEL 452C Biliteracy: Teaching English and Chinese, K-8 (CSU Long Beach)
Cambodian: EDEL 452K, Biliteracy: Teaching English and Khmer, K-8 (CSU Long Beach)
Korean: EED 520K, Teaching Reading in the Elementary School (CSU Northridge) OR TED 515A, Bilingual Education: Reading, Language Arts and Content in the Primary Language (Korean) (Cal Poly Pomona)
OR TED 494S, Teaching for Biliteracy Development in Culturally and Linguistically Diverse Settings: Korean Bilingual Instruction (CSU Dominguez Hills)
Vietnamese: EDEL 452V, Biliteracy: Teaching English and Vietnamese, K-8 (CSU Long Beach)
OR EDEL 448 Methods \& Inquiry for Vietnamese BCLAD Candidates (CSU Fullerton)
Note: Culture of Emphasis and Bilingual Pedagogy courses may be taken before admission to the MSCP. See the Coordinator of the Asian BCLAD Consortium for information.
3. Passage of BCLAD subtest \#6 in Cantonese, Khmer, Korean, Mandarin or Vietnamese language (listening, speaking, reading, and writing).
4. Student teaching in Bilingual Classrooms EDEL 482E (8 units). This requirement may be used as a substitute for one semester of 482D.

## Spanish Language BCLAD

## Requirements

The Bilingual Cross-Cultural Language and Academic Development (BCLAD) Emphasis authorizes teachers to work in dual language classrooms or where a language other than English is required for instruction, support, and communication with parents and other professional communication. The BCLAD Spanish Emphasis is offered on campus or through the BCLAD in Mexico program.

Students seeking dual language certification must complete the ITEP program requirements. They also must fulfill the following additional requirements for Spanish/English BCLAD:

1. Culture of Emphasis (one of the following, 3 units) CHLS 340 Latinos and Education, or CHLS 350, Latino Population in the US.
2. Bilingual Pedagogy of Emphasis (3 units): EDEL 452B, Teaching Reading in Spanish \& English, K-8 (BCLAD).
3. Passage of BCLAD subtest \#6 Spanish (4 parts: listening, speaking, reading and writing).
4. Student Teaching in Bilingual Classrooms: EDEL 482F (8 units), This requirement may be used as a substitute for one semester of EDEL 482D.

## Education Specialist ITEP

## Requirements

The Education Specialist ITEP Pathway allows students to work toward a Level I Education Specialist Credential while completing their MSCP ITEP requirements. Students should formally apply to the Education Specialist Credential program at the same time they apply to the MSCP as described earlier. Education Specialist ITEP students must complete all ITEP program requirements taking EDP 454 in Area I, Group 6 and EDP 301 in Area VI, Group 4. Education Specialist ITEP students must complete all MSCP ITEP credential coursework and requirements as well with the following exception: Students will complete only one semester of student teaching in a general education classroom instead of two.

Education Specialist ITEP students will then complete all Education Specialist Level I coursework and Field Study as listed below:

- Education of Exceptional Individuals EDSP 350
- Foundations of Inclusive Education EDSP 480
- Positive Strategies in Classroom Management EDP 405
- Assessment and Evaluation of Students with Disabilities EDSP 564
- Curriculum and Instruction for Students with Disabilities: Literacy, Communication, Social, and Physical Education EDSP 567
- Curriculum and Instruction for Students with Disabilities: Math, Science, and Life Skills EDSP 569
- Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate or Moderate/Severe Disabilities EDSP 587 or 588B


## TRACK I (code L/STBA01)

## Requirements

The minimum unit requirement for the Liberal Studies Track I major is 114 units, which includes both Core and Concentration. The Track I program is both a major and an approved General Education program. This means that both General Education and major requirements are satisfied by completion of the Track I program.

The Track I Core consists of a minimum of 102 units distributed across six areas: I. Language Studies (minimum 22 units); II. Mathematics (minimum 9 units); III. Natural Sciences (minimum 14 units); IV. History and Social Sciences (minimum 24 units); V. Arts and Humanities (minimum 15 units) and VI. Learning and Well-Being (minimum 18 units).

No course in the Track I core may be taken Credit/No Credit.
The Track I Concentration consists of 12-15 units of integrated course work with advisor approval. No course in the Track I concentration may be taken Credit/No Credit, and no course used to meet Core requirements may be counted toward the concentration.

In addition 120 hours of approved service-learning in an elementary or middle school must be completed prior to graduation as a means to learning about cultural diversity in the community, about current problems besetting students in the public schools, about successful intervention strategies for students needing special attention, and promotion of individual civic responsibility.

## Requirements

## Service Learning

The way to earn the required 120 hours of Service Learning is participation in the SERVE (Service Experience for Revitalizing Education) program, which provides orientation and training in addition to school placements. To participate in SERVE, students must have a 2.0 grade-point average, current TB clearance, and be available for either 2 two-hour time blocks or 1 four-hour time block during public school hours over a 10 week period during the semester. For further information and the schedule for orientation and training sessions, contact the Liberal Studies office or SERVE office (ED1-17 or online at www.ced.csulb.edu).

## Track I Core

A minimum of 102 units distributed as specified in Areas I, II, III, IV, V and VI. No core classes may be taken Credit/No Credit Area I: Language Studies (minimum 22 units)

Group 1. Composition in English:
a) Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100;
b) ENGL 309

Group 2. Oral Communication in English: Choose one course from COMM 130, 335
Group 3. Literature in English:
a) Choose one course from CWL 100, ENGL 180, 250A, 250B, 270A, 270B;
b) Choose one course from ENGL 481, COMM 352

Group 4. Language Acquisition: Choose one from either a) or b):
a) C/D 329, EDSP 454, LING 329;
b) CHIN 201, 202, FREN 201A, 201B, GERM 201A, 201B, ITAL 201A, 201B, JAPN 201, 202, RUSS 201A, 201B, SPAN 201A, 201B (Students with more advanced language competencies substitute appropriate higher level language courses for those listed here.)
Group 5. Integration and Assessment: L/ST 400
Area II: Mathematics (minimum 9 units)
Group 1. Real Numbers: MTED 110
Group 2. Geometry and Measurement:
Choose one course from MTED 211* or 312
(*Students who choose a Math Concentration must take MTED 312.)
Group 3. Integration and Assessment: MTED 402
Area III: Natural Sciences (minimum 14 units)
Group 1. Life Science: BIOL 200
Group 2. Physical Science: PHSC 112

Group 3. Earth Science: GEOL $102+104$
Group 4. Integration and Assessment: SCED 401
Area IV: History and Social Sciences (minimum 24 units)
A. American History, Culture, Society

Group 1. U.S. History:
a) Choose one course from HIST 172, 300;
b) HIST 473

Group 2. American Institutions:
Choose one course from POSC 100, 391, *326 (*POSC 326 is limited to and only required of students who have met the U.S. Constitution/ Government requirement in a state other than California or through Advanced Placement Credit and who must meet the Title V California State and Local Government requirement.)
Group 3. Multicultural Dimensions:
Choose one course from AIS 319, ANTH 421/LING 425, ASAM 319, B/ST 319, CHLS 319, W/ST 319
B. World History, Culture, Society

Group 1. Geography:
Choose one course from GEOG 100, 100W
Group 2. World History:
Choose one course from HIST 211, 212
Group 3. Cultural Anthropology:
Choose one course from ANTH 120, 314, 412I
Group 4. Integration and Assessment: L/ST 403
Area V: Arts and Humanities (minimum 15 units)
A. Visual and Performing Arts

Group 1. Visual Art and Music:
a) ART 300;
b) MUS 180

Group 2. Dance or Theatre:
Choose one course from CWL 124, 324I, DANC 110, THEA 113, 122, 124, 324 I
B. Humanities

Group 1. Ethics, Values and Beliefs:
Choose one course from PHIL 100, 160, 160W, 203, 204, 405I, R/ST 100, 202, 485
Group 2. Integration and Assessment: L/ST 404
Area VI: Learning and Well-Being (minimum 18 units)
Group 1. Growth and Development:
a) PSY 100;
b) Choose one course from EDP 301, HDEV 307I, PSY 361
Group 2. Health and Well-Being:
a) HSC 411A;
b) KIN 476

Group 3. Access to Learning:
a) Choose one course from: A/ST 190, ENGL 102, HIST 101, PHIL 170, PSY 130, COMM 131, *UHP 100
(*UHP 100 is limited to students in the University Honors Program);
b) Choose one course from ENGL 337, ETEC 444, MTED 301

## Track I Concentration

A minimum of 12 units with advisor approval, at least 9 of which must be at the upper-division (300-400) level (with the exception of the Natural Science concentration) in one of the thematic programs of study identified below. No concentration
course may be taken Credit/No Credit. No course used to fulfill a core requirement may be used to fulfill a concentration requirement.

Students must gain approval for a concentration and curricular plan. Normally the proposal is submitted before the student begins to take courses in the concentration. Students declare a concentration by attending a concentration workshop. Students may sign up for a workshop at the Liberal Studies office. Subsequent modifications of the concentration curriculum must also be approved.

## Bilingual Spanish-English

Subject preparation for a Multiple Subject Credential with a bilingual, cross-cultural, language and academic development (BCLAD) emphasis requires students to demonstrate proficiency in a targeted language and understanding of the culture of a targeted group. This concentration focuses on the Spanish language and Latino culture to be consistent with the requirements of the BCLAD emphasis in the CSULB credential program. The primary focus of the concentration is development of language skills. Students with demonstrated language proficiencies in reading, writing and speaking at an advanced level may seek to substitute additional culture studies for required language classes. Prior to proposing this concentration or completing any course work toward it, students should meet with the Spanish undergraduate advisor who will be able to determine language proficiencies. (The following Core classes are highly recommended for students proposing this concentration: CHLS 319 in Area IV, A, Group 3; ANTH 412I in Area IV, B, Group 3; EDP 301 in Area IV, Group 1b.) Complete 15 units from:

Area 1. Language Foundations (9 units): SPAN 300, 322
Area 2. Literary Analysis (3 units): SPAN 310
Area 3. Culture Study (3 units) from: CHLS 340, CHLS 350/SOC 340

## Cultures, Values and Beliefs

Focus is on humanistic study of cultural traditions, both Western and non-Western, and the values and beliefs that have shaped them. Insight will be gained into motivating and orienting ideas that have given meaning to individual lives and structured human relationships. Special attention is given to religious, philosophical and ethical perspectives. (No course used to meet requirements of the core may be used to meet the requirements of the concentration; no more than 3 units of lower division (100-200) course work may apply toward the concentration.)
Complete 15 units from:
Area 1. Western Culture (3 units):
Choose from CLSC 300I, 311I, 414I, HIST 310I, 323I, 335, 337, 339, 400I, 414I, 477A, 477B
Area 2. Non-Western Cultures ( 3 units):
Choose from ANTH 321, 323, 324, 332, 333, 335, A/ST 300I, 301I, 393, 495I, HIST 382A, 382B, 383A, 383B, 385, 431, 441, 461, RUSS 410I
Area 3. Values and Beliefs/Western (3 units): Choose from HIST 371, PHIL 100, 203, 204, 330, 342, 352, 361, R/ST 102, 383I, 391I, 425I, 482I, 485
Area 4. Values and Beliefs/Non-Western (3 units):
Choose from AIS 335, ASAM 380, B/ST 353, PHIL 306, R/ST 103, 331I, 341I, 343, 344, 351

Area 5. Ethical Values (3 units):
Choose from MICR 302I, PHIL 160, 160W, 363, R/ST 302I

## Health, Physical Education and Life Management

Provides students with a breadth and depth of knowledge, attitudes and behaviors that prepares them in the areas of health, physical education and fitness, mental health, family life and nutrition. The areas of emphasis include substance use and abuse, family life/health and sexuality education, nutrition, violence prevention (including child abuse and suicide prevention), physical activity and fitness, motor skills and stress management. (Credit in the concentration will be granted for either HSC 425I or CDFS 419, but not both.) Complete 15 units from:

Area 1. Health (3 units):
Choose from HSC 421, 423, 425I, 427
Area 2. Physical Education (3 units): KIN 477
Area 3. Life Management (3 units):
Choose from FCS 132, 319, 419, REC 371
Area 4. Additional Selected Study (6 units): Choose from those listed in Areas 1 and 3 not completed.

## Historical Perspectives

Prepares students in the subjects identified in the HistorySocial Science Framework for California Public Schools which provides the rationale and coherence for this course work. Emphasis is upon historical perspective not only in terms of Western/American tradition, but also in terms of other world societies and peoples. (The following core courses are recommended for students choosing this concentration: HIST 111 in Area IV, B, Group 2; ANTH 314 in Area IV, B, Group 3 and AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3.)
Complete 15 units from:
Area 1. Peoples of the World ( 3 units):
Choose from ANTH 321, 323, 324, 332, 333, 335, GEOG 309I, 316, 318, 320, 326
Area 2. Ancient World Civilizations (3 units): Choose from ANTH 313, 345, 347, A/ST 300I, HIST 313, 314, 316, 382A, POSC 301
Area 3. U.S. Emerges as a Nation (3 units): Choose from HIST 372, 375, 477A, 485A, W/ST 485A
Area 4. California (3 units):
Choose from ANTH 322, 349, CHLS 300, GEOG 304, HIST 370, POSC 326
Area 5. American Society Today (3 units):
GEOG 306, 466, HIST 380, 474I, W/ST 3071

## History/Social Science

In addition to deepening their knowledge of specific subjects in this area of study, students with a concentration in History/Social Science will be exposed to the specific modes of inquiry characteristic of such disciplines as history, anthropology and geography. Each student pursuing a History/Social Science Concentration will choose one of the following areas of emphasis: California Studies, United States Studies, or Global Studies. California Studies is most appropriate four $4^{\text {th }}$ grade teaching, United States Studies for $5^{\text {th }}$ or $8^{\text {th }}$ grade teaching, and Global Studies for $6^{\text {th }}$ grade
teaching. Within each area of emphasis, each student will take one course in each of the following areas: 1) Anthropological Perspectives, 2) Historical Perspectives, 3) Social and Cultural Perspectives, 4) Geographic Perspectives.

Complete 12 units from:

## California Studies

Group 1: Anthropological Perspectives:
Choose one course from: ANTH 412I, ANTH 421/LING 425
Group 2: Historical Perspectives:
Choose one course from AIS 490, ANTH 349, ASAM 200, 220, 335I, C/LA 485, CHLS 300, 335I, HIST 370, 402, 462, 471, 482
Group 3: Social and Cultural Perspectives:
AIS 335, ANTH 322, ASAM 330, 331, 332, 333, 334, CHLS 352/SOC 341, POSC 323, POSC 326
Group 4: Geographic Perspectives: GEOG 120, 304

## United States Studies

Group 1: Anthropological Perspectives:
Choose one course from: ANTH 412I, ANTH 421/LING 425
Group 2: Historical Perspectives:
Choose one course from AIS 105, ANTH 347, ASAM 200, 220, 335I, B/ST 120, 190, 381, CHLS 300, 335I, 390I, ECON 360I, HIST 370, 372, 373, 376, 481, 485A, W/ST 485A
Group 3: Social and Cultural Perspectives:
Choose one course from AIS 335, ANTH 321, ANTH/W/ST 475, ASAM 330, 331, 332, 333, 334, 340, 345, 346, 347, 352, 370, 380, 381, B/ST 353, 400, 410, 420, 423, 424, CHLS 310, 340, 350, 415, ECON 300, HIST 381, 469, 471, 474I, 485B, 486, LING 470 POSC 323, 395I, 420, 423, 424, SOC 320, 325, 340, 345, 346, 423, 466, SW 423, W/ST 102, 308, 315, 318I, 320, 325, 381, 485B, 420, 430
Group 4: Geographic Perspectives:
Choose one course from GEOG 120, 306, 401, 466, U/ST 301I

## Global Studies

Group 1: Anthropological Perspectives:
Choose one course from: ANTH 412I, ANTH 421/LING 425
Group 2: Historical Perspectives:
Choose one course from ANTH 307I, ANTH 345, A/ST 300I, A/ST 301I, B/ST 200, 304, 430, 498, ECON 361I, GEOG 307I, HIST 211, 304, 362, 364, 382A, 382B, 383A, 383B, 385, 386, 391, 392, 396, 431, 432, 492, POSC 401, WIST 402
Group 3: Social and Cultural Perspectives: ANTH 314, 323, 332, 335, 351, A/ST 320, 393, 495I, B/ST 337, 404, 460, CHIN 250, ECON 306I, HIST 406B, 466C, POSC 220, 371, 388I, 395I, SOC 350, 466, 494, W/ST 401I, 406, 410, 432
Group 4:
GEOG 160, 308I, 309I, 314I, 316, 319, 320I, 355, 455, 460, I/ST 319I, 355, POSC 358, 359, 362, 363, 366, 367

## Human Behavior

Provides an understanding of basic principles underlying human behavior. Why do people interpret, believe, feel, think and act as they do? Basic issues include: How people process information and how they organize what they learn into knowledge structures; processes in social learning; how
people influence other people and individual differences in ability and personality that affect behavior. These principles will be applied to specific issues in courses selected from a broad range of disciplines. (Credit in the concentration will be granted for either PSY 351 or SOC 335I, but not for both.) Complete 15 units from:
Area 1. Basic Principles (6 units):
Choose from ANTH 311I, PSY 351, 356, 370, SOC 100, 335I
Area 2. Application/Race and Ethnicity (3 units): Choose from ANTH 419, ASAM 340, B/ST 310, 325, 410
Area 3. Application/Gender Roles (3 units):
Choose from ANTH 351, CDFS 358, HIST 309I, PSY 352, 354, 366, SOC 325, W/ST 314, 325, 420
Area 4. Application/Social Environments (3 units): Choose from ANTH 436, CAFF 309I, 410, FIN 309I, HSC 421, POSC 428, PSY 381, SOC 320, 336

## Human/Child Development

Provides students with a background in the developmental issues of children, adolescents and adults within a family and social context. Specific areas focus on the intellectual and socio-emotional development of individuals from birth through aging and the effects of the near environment on their development. Factors which effect individual variability in growth and development such as gender, family, racial, ethnic and cultural differences will be explored. (The following core courses are REQUIRED for students selecting this concentration: AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3 and ANTH 120 in Area IV, B, Group 3.) Complete 15 units from:

Area 1. Intellectual and Social Development (3 units): Choose from EDP 305, CDFS 314, PSY 463
Area 2. Adult Development (3 units): Choose from GERN 400I, HDEV 357I, PSY 365, SOC 464
Area 3. The Child in the Family (3 units):
Choose from ASAM 340, B/ST 410, CDFS 3191, 412, 413
Area 4. Social Ecology of Child Development (6 units): Choose from B/ST 420, CHLS 350/SOC 340, EDP 302, EDSP 350, 485/LING 485, CDFS 411, NUTR 430, HDEV 360, NRSG 481I, SOC 345, SOC/SW 423

## Language Arts

Provides students with special appreciation for languages, literatures, and their relation to culture through study in three areas: Language perspectives, which involves the study of languages (and/or language) and their relationships to literary and cultural patterns; theory and/or criticism which provides the theoretical tools for the analysis and explanation of those relationships and language process which involves additional practice in the creative and technical aspects of producing linguistic products. (The following core classes are highly recommended for students selecting this concentration: COMM 335 in Area I, Group 2; ANTH 412I in Area IV, B, Group 3; PHIL 100, 160, 203, 204 or 305 in Area V, B, Group 1 and ENGL 200 in Area VI, Group 3a. No more than 3 units of lower division (100-200) course work may apply toward the concentration.)
Complete 15 units from:

Area 1. Language and Culture (3 units):
Choose from ANTH 413, 475, B/ST 180, ENGL 423, 426, LING 413, 423, 426, 363I, 470, COMM 309, 330, W/ST 475
Area 2. Language and Literature (3 units):
Choose from AIS 340, A/ST 320, B/ST 140, 343, CHIN 370, CLSC 191, CWL 403, 404, 410, 440, 453, ENGL 382, 431, FREN 335, 336, GERM 415, 416, JAPN 370, RUSS 310, SPAN 330, 341, W/ST 382
Area 3. Language/Theory and Criticism (3 units):
Choose from CWL 361, ENGL 318I, 384, 410, 484, PHIL 361, 484, R/ST 301, FEA 318I, COMM 300, 301, 306, 333, THEA 426
Area 4. Language and Process (3 units):
Choose from B/ST 450, ENGL 205, 206, 317, 405, 406, 417, COMM 331, 358, THEA 380
Area 5. Additional Selected Study (3 units):
Choose from ENGL 375, LING 472, COMM 355

## Language and Literacy

Students in the Language and Literacy concentration develop their knowledge of and appreciation for Literature while also engaging enhancing their ability to deal with literacy education through additional study of linguistics and culture.

Complete 12 units from:
Group 1. Exploring Literature:
Choose two courses from AIS 340, ASAM 260, 360, B/ ST 340, 343, 346, CHIN 370, CHLS 205, CWL 100, 415I, ENGL 180, 250A, 250B, 270A, 270B, 363, 375, 382, 385, 386, 482, JAPN 370, W/ST 382
Group 2. Sociolinguistics and Schooling: LING/EDEL 379
Group 3. Language, Literacy and Culture:
Choose one course from: ANTH 413, 475, COMM 309, 330, 355, EDEL 430, 439, EDP 432, 439, 485, EDSE 439, ENGL 300, 327, 410, 435, 436, LING 327, 413, 470, 485, 486, W/ST 475.

## Language Other Than English

Provides opportunity for students to gain access to advanced preparation in reading, writing and speaking a selected language other than English. Provides insights into second language acquisition and the intimate relationships linking language, cognition and culture. Students select one language in which to complete the following requirements: Complete 15 units from:
Area 1. Advanced Language Study (6 units): Choose from CHIN 301, 302, FREN 312A, 312B, GERM 301, 302, ITAL 312A, 312B, JAPN 301, 302, RUSS 312, 399
Area 2. Conversation (3 units):
Choose from CHIN 490, FREN 214, GERM 305, ITAL 214, JAPN 311, RUSS 314, SPAN 314
Area 3. Literature (3 units):
Choose from CHIN 370, FREN 335, 336, GERM 415, 416, ITAL 490, JAPN 471, RUSS 310, SPAN 330, 341
Area 4. Additional Study (3 units):
Choose from CHIN 490, FREN 314, 411, 414, GERM 303, ITAL 314, 490, JAPN 312, 350, 461, RUSS 499, SPAN 322

## Mathematics

Provides advanced study of mathematics consistent with the philosophy of the California Framework in Mathematics and Standards of the National Council of Teachers of Mathematics for the mathematics content taught through the middle grades. (The following core courses are REQUIRED for students choosing this concentration: MTED 312 in Area II, Group 2; MTED 301 in Area VI, Group 3b.) Students choosing the Mathematics Concentration must complete MTED 312 with a "C" or better grade prior to registering for MTED 402. Complete 12 units from:

Group 1. Probability and Activities-Based Statistics:
MTED 105 (must be completed prior to enrollment in MTED 402)
Group 2. History of Mathematics: MTED 315
Group 3. Number Theory: MTED 320
Group 4. Functions, Models and Concepts of Calculus: MTED 325

## Natural Science

Two pathways provide fundamental skills and abilities to deal confidently with wide variety of scientific viewpoints applied to various important issues, concrete and significant examples of scientific thinking. Pathway A: "breadth" pathway particularly appropriate for future K-5 teachers. Choose at least one course from three different groups. Pathway B: "depth" pathway particularly appropriate for future teachers of grade 6-8 as well as for students who prefer a stronger emphasis on investigation and experimentation. Choose at least three courses from a single group.
Complete 12 units from:
Pathway A - Breadth - Choose coursework from EACH of the following groups:
Group 1. Earth Science:
Choose one course from: GEOL 160, 190, 240, 300I
Group 2. Life Science:
Choose one course from: BIOL 100, 153, MICR 101, 3001
Group 3. Physical Science:
Choose one course from: ASTR 100, CHEM 100, 111A,
PHYS 100A
Group 4. Additional Coursework:
If necessary to reach 12 units in the Concentration, choose from GEOL 105, ASTR 100L, NSCI 309I, 375I or any additional class from those listed above.
Pathway B: Depth - Choose an option and take three courses in that option:
Earth Science Option:
Choose three courses from: GEOL 160, 190, 240, 300I, 341, GEOL/BIOL 303
Life Science Option:
Choose three courses from: BIOL 100, 153, GEOL/BIOL 303, MICR 101, 3001
Physical Science Option:
Choose three courses from: ASTR 100, CHEM 100, 111A, 111B, 302, PHYS 100A, 100B
Additional Coursework:
If necessary to reach 12 units in the Concentration, choose from ASTR 100L; NSCI 309I, 375I, or any additional class from any other of the options listed above.

## U.S. Multicultural Studies

Students should learn from their earliest school years that our nation is composed of people whose backgrounds are rooted in cultures from around the world, and they should develop respect for the dignity of all people and ways of life. This concentration will help potential teachers to recognize that the history of community, state, region and nation must reflect the experience of men and women of different racial, religious and ethnic groups in our pluralistic society. (The following core course is REQUIRED for students choosing this concentration: AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3. Courses selected should include all four major U.S. ethnic groups. No more than 3 units of lower division (100-200) course work may apply toward the concentration and no course used to satisfy a core requirement may be used to satisfy a concentration requirement.)
Complete 15 units from:
Area 1. Education in an Ethnic Perspective (3 units): Choose from AIS 361, ASAM 310, B/ST 420, CHLS 340
Area 2. Multicultural Perspectives (3 units):
Choose from ANTH 412I, 421/LING 425, EDP 432/EDEL 430, NUTR 336, HDEV 360, COMM 330, W/ST 401।
Area 3. Ethnic Studies (9 units):
No more than one course may be selected from 100-200 level courses and from any one department (courses cross-listed with CHLS will be considered CHLS department courses in this context). Choose from AIS $105,106,200,320,340,420$, ASAM 220, 340, 345, 370, 380, B/ST 110, 180, 370, 400, 410, CHLS 300/HIST 370, CHLS 310, CHLS 350/SOC 340, CHLS 352/SOC 341, CHLS 3901

## Visual and Performing Arts

Allows development of skills in responding to the arts as well as in creating and performing. Examines history of traditional Western fine arts as well as role the arts play in another cultural tradition. All four components of the California Framework for the Visual and Performing Arts are addressed: Aesthetic perception, creative expression, arts heritage and aesthetic valuing.
Complete 15 units from:
Area 1. Perception, Expression, Heritage, Valuing (6 units): ART 302 (Course no longer offered. See Liberal Studies director for substitution.), MUS 385
Area 2. Fine Arts History (6 units):
If a Theatre course was taken in the Core, include at least one Dance course here. Choose from AH 401, 408, 409, 410, 416, 417, 423, 424, 425, 426, 427, 436, 437, CWL 422I, DANC 110, 435I, MUS 363I, 364I, 393
Area 3. Multicultural and Ethnic Arts (3 units): Choose from AIS 320, 420, AH 455, 456, 457, 466, 467, 468, 469, 470A/B, B/ST 346, 363, MUS 490

## TRACK II (code L/STBA02)

In the process of discontinuance, no new students admitted.
Students in this track complete a Core program (87 units minimum) and a Concentration (24-32 units). The Track II program is both a major and an approved General Education program. Both General Education and major requirements are satisfied by completion of the Track II program. A minimum of six units of interdisciplinary course work (courses with an I suffix) must be completed in the major-in either the core, the concentration or a combination of both. Course work used
to meet the specific requirements of the core may also be used to meet the specific requirements of a concentration to a maximum of 12 units of such "double counting" or "overlapping." (Although one course may satisfy two requirements at the same time, the units earned apply to the total units required for the degree only once.) Minimum units for the Liberal Studies major, Track II, could vary from 99-119 units depending on choice of concentration and potential for overlapping core and concentration requirements.

The Track II Core consists of a minimum of 87 units distributed across seven areas: I. Language and Communication Studies (minimum 18 units); II. Natural Science and Mathematics (minimum 18 units); III. National and World Citizenship (minimum 18 units); IV. Social and Behavioral Science Foundations (minimum 9 units); V. Literary, Visual and Performing Arts (minimum 12 units); VI. Cultures, Values and Beliefs (minimum 9 units) and VII. Health WellBeing, Life-Management: (minimum 3 units). Only one course per core area may be taken Credit/No Credit within university maximum of 24 units overall and 12 at the upper division (300400) level.

The Track II Concentration consists of 24-32 units of course work in a selected discipline. A minimum of 15 of the concentration units will be in upper division (300-400) course work with the exception of the Biology and Mathematics concentrations where only 12 upper division units are required. Only one concentration course may be taken Credit/No Credit.

## Requirements

## Track II Core

A minimum of 87 units as specified in Areas I, II, III, IV, V, VI and VII. Only one course per core Area may be taken Credit/ No Credit within university limitations of 24 overall, 12 at the upper division (300-400) level.
Area I: Language and Communication Studies (minimum 18 units)
Group 1. Composition in English:
a) Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100;
b) Choose one course from B/ST 450, ENGL 101, 205, 206, 300, 317, 407, 417, 418, THEA 380
Group 2. Oral Communication in English:
Choose one course from COMM 110, 130, 132, 331, 334, 335
Group 3. Language and Critical Thought:
Choose one course from A/ST 190, ENGL 102, HIST 101, PHIL 170, PSY 130, COMM 131, *UHP 100 (*UHP 100 is limited to students in the University Honors Program)
Group 4. Language Study Other than English:
Complete a two semester sequence in one language from CHIN 101, 102, 201, 202, FREN 101A, B, 201A, B, GERM 101A, B, 201A, B, GK 101A, B, 301A, B, ITAL 101A, B, 201A, B, JAPN 101, 102, 201, 202, LAT 101A, B, 301, RUSS 101A, B, 201A, B, SPAN 101A, $\mathrm{B}, 201 \mathrm{~A}, \mathrm{~B}$ (This is not a proficiency requirement, but a requirement for one sequential year of language study beyond current level of mastery. Choose the language and level appropriate to prior preparation. If prepared for more advanced 300 level of study or higher, substitutions of higher level language courses for those above can be made.)

Area II: Natural Science and Mathematics (minimum of 18 units):
Group 1. Mathematics:
Choose two courses from MATH *103, 112, 114, 115, 117, 119A, 119B, 122, 123 (*MATH 103 is not open for credit to students with credit in a higher math course or its equivalent.)
Group 2. Natural Sciences:
a) Choose one course from BIOL 200, 205, 207, 211A;
b) Choose one from ASTR 100+100L, CHEM 100, 111A, GEOL 102+104 or 105, PHYS 100A, 151, PHSC 112
Group 3. Additional Study in Science or Math:
Choose two courses, at least one of which is at the upper division (300-400) level, from any of the courses listed in Area II, Groups 1 and 2 not completed, or from ASTR 370I, BIOL 153, 211B, 301, 303, 309I, CHEM 111B, C/LA/HDEV 250, ET 202, GEOG 140, GEOL 160,160+160L, 190, 240, 303, MATH 180, 224, 233, 247, 310, 341, 355, 370A, 380, MICR 101, 300I, NSCI 375I, PHSC 331, PHYS 100B, 152, HIST 400I, PSY 110, 346I, SOC 255 (For upper division work special attention is directed to the range of Interdisciplinary (I) courses offered in the College of Natural Sciences and Mathematics; these are highly recommended.)
Area III: National and World Citizenship (minimum 18 units):
Group 1. Basic Studies:
a) Choose one course from HIST 172, 173, 300;
b) Choose one course from POSC 100, 391, *326 (POSC 326 is limited to students who have completed a U.S. Government course in a state other than California or have Advanced Placement Credit in U.S. Government and must meet Title V state and local government requirements);
c) Choose one course from ECON 300

Group 2. U.S. Diversity:
Choose one course from: AIS 319, ANTH 329, 419, ASAM 200, 319, B/ST 210, 319, 325, CHLS 319, 350, 352, POSC 323, SOC 340, 341, 346, W/ST 319
Group 3: National Citizenship:
Choose one course from B/ST 381, EDP 492, GEOG 301I, HIST 474I, 480, LING 472, POSC 210, 308, 327, 328, 420, 423, 424, 482, 486, PSY 375I, SOC 449, COMM 441I, 442I, U/ST 301I
Group 4. World Citizenship:
Choose one course from ANTH 307I, 314, ECON 306I, GEOG 307, 470, 478, I/ST 478, PHIL 351, POSC 215, $220,306,353,371,485$, SOC 350
Area IV: Social and Behavioral Science Foundations (minimum 9 units)
Group 1. Psychology/Sociology:
Choose one course from PSY 100, SOC 100, 142
Group 2. Geography/Cultural Anthropology:
Choose one course from ANTH 120, GEOG 100, 100W, 160
Group 3. History:
Choose one course from HIST 211, 212, 131, 132
Area V: Literary, Visual and Performing Arts (minimum 12 units)
Group 1. Visual and Performing Arts:
Choose two courses from two different arts from AIS 320,

ART 110, AH 113A, 113B, 111A, 111B, B/ST 155, 160, 363, CLSC 420I, DANC 110, 435I, MUS 190, 290, 363I, 364I, 490, THEA 113, 122, THEA/CWL 124, 324I
Group 2. Literature:
a) Choose one course from B/ST 140, CHLS 150, CWL 100, 334, 336, ENGL 180, 184, 250A, 250B:
b) Choose one course from AIS 340, B/ST 343A/B, 346, CHIN 370, CWL 330A, 330B, 342, 346, 403, 404, 415I, 430, 440, ENGL 270A, 270B, 363, 375, 382, 385, 386, FREN 335, 336, GERM 415, 416, JAPN 370, JOUR 315, R/ST 425I, SPAN 330, 341, W/ST 382
Area VI: Cultures, Values and Beliefs (minimum 9 units) Group 1. Western Tradition:

Choose one course from either (a) or (b):
a) CLSC 310I, CLSC 311I/HIST 310I, CLSC/HIST 312I, CWL 414I, HIST 335, 477A, 477B;
b) HIST 371, PHIL 100, 160, 160W, 203, 204, 330, 352I, 361, 363, R/ST 102, 383I, 482I
Group 2. Non-Western Traditions:
Choose one course from either (a) or (b):
a) ANTH 321, 323, 324, 332, 333, 335, A/ST 300I, 301I, 393, 495I, HIST 341A, 341B, 382A, 382B, 383A, 383B, 385, 386, 431;
b) AIS 335, ASAM 380, B/ST 353I, PHIL 306, R/ST 103, 331I, 341I, 343, 344, 351
Group 3: Additional Study (3 units):
Choose another course from those listed in Group 1a, $1 \mathrm{~b}, 2 \mathrm{a}$, and 2 b not completed.
Area VII: Health, Well-Being and Life Management (minimum
3 units)
Choose one course from COUN 191, 357, NUTR 132, CAFF 309I, 312I, FIN 309I, HSC 210, 420, 421, 422, 423, 425I, 427, 429, HDEV 307I, 357I, KIN 157, NRSG 481I, REC 220, 340I, SW 330, 331, SOC 461, 462, 463, W/ST 101, 440

## Track II Concentration

A minimum of 24 units of which 15 must be at the upper division (300-400) level (with the exception of Biology and Mathematics where only 12 units at the upper division are required) from one of the disciplinary programs below. A maximum of 12 units of course work used to meet requirements of the core may be used to satisfy the requirements of the concentration. In such "double-counting," one course may satisfy two requirements but the units apply to total degree requirements only once. Unit requirements in some concentrations exceed the 24 unit minimum; no concentration requires more than 32 units. Only one course in a concentration may be taken Credit/No Credit.

## American Indian Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (6 units): Choose from AIS 105, 106, 200
Area 2. Selected Area Study (12 units): Choose from AIS 320, 335, 340, 361, 420, 490, 497, 499
Area 3. Additional Support and Area Study (6 units): Choose from courses in Areas 1 and 2 not completed or from: ANTH 321, 322, 347, 349, AH 456, 457, CHLS 420, HIST 372

## American Studies

Inactive, no new students admitted.

## Anthropology

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (6 units) : ANTH 110, 120
Area 2. Additional Lower Division Study (3 units): Choose from ANTH 140, 170
Area 3. Upper Division Foundation Study (6 units): ANTH 313, 314
Area 4. Biological Anthropology (3 units): Choose from ANTH 318, 363, 435
Area 5. Sociocultural Anthropology (3 units): Choose from ANTH 351, 413, 416, 421, 436
Area 6. Comparative Cultures (3 units): Choose from ANTH 321, 322, 323, 324, 332, 333, 335, 345, 347, 349

## Art/Art History

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units):
Choose three courses from AH 113A, 113B, 111A, 111B
Area 2. Principles and Practices (3 units): Choose from AH 307, 308, 309, 435
Area 3. Western Art (3 units):
Choose from AH 401, 408, 409, 410, 416, 417, 423, $424,425,426,427,436,437,438,439$
Area 4. Non-Western Art (3 units):
Choose from AH 455, 456, 457, 465, 466, 467, 468, 469, 470A/B
Area 5. Additional Upper Division Study (6 units): Choose from courses listed in Areas 3 and 4 not completed.

## Art/Studio

Special admissions deadlines apply.
Complete a minimum of 27 units with 12 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units): ART 131, 181, 187
Area 2. Art History (3 units): Choose from AH 437, 438, 439
Area 3. Selected Upper Division Study (12 units): Choose from ART 316, 317, 328A, 328B, 354A, 354B, 355A, 357A, 357B, 370, 376, 378, 379, 381, 385, 387, 428A

## Asian American Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (6 units): ASAM 200, 220
Area 2. Upper Division Foundation Study (7 units): ASAM 345, 380
Area 3. Additional Selected Study (11 unit minimum): Choose from ASAM 310, 330, 340, 370 490, 499

## Biology

Complete a minimum of 32 units with 12 at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (20 units): BIOL 211A, 211B, CHEM 111A, 111B
Area 2. Selected Upper Division Study (12 units minimum):
Choose from BIOL 313, 316, 324, 328, 332, 421, 423, 424, 425, 427, 439, 453, 490, 490L, 496

## Black Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Introduction (3 units): B/ST 110
Area 2. History (3 units): Choose from B/ST 120, 121
Area 3. Selected Lower Division Study (3 units):
Choose from B/ST 155, 160, 200, 210
Area 4. Humanities ( 6 units):
Choose from B/ST 340, 343, 346, 450
Area 5. Social Studies (9 units):
Choose from B/ST 304, 325, 330, 332, 335, 337, 400, 410

## Chicano-Latino Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (9 units):
Choose from CHLS 100, 101, 150, 230
Area 2. Upper Division Foundation Study (9 units):
CHLS 300/HIST 470, 310, 350/SOC 340
Area 3. Culture Study (3 units):
Choose from CHLS 390I, 395, 420
Area 4. Social Inquiry (3 units):
Choose from CHLS 340, 352, 415, 421

## Comparative Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Foundation Study, Breadth (6 units): Choose from CWL 330A, 330B, 334
Area 2. Foundation Study, Depth (3 units): Choose from CWL 430, 449
Area 3. Genre Study (6 units):
Choose from , CLSC 420I, CWL/THEA 124, CWL 232, 320I, CWL/THEA 324I, CWL 346, 405, 453
Area 4. Comparative Literary Study (3 units): Choose from CWL 336, 403, 404, 440, 448, 452
Area 5. Literary Movements or Periods (3 units):
Choose from CWL 349, 431, 432, 437, 438
Area 6. Literature and the Other Arts ( 3 units): CWL 250, CLSC 311I/HIST 310I, CWL 410, 412I, 451।

## Economics

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (6 units): ECON 100, 101
Area 2. Upper Division Foundation Study (6 units): ECON 313, 360I
Area 3. Additional Selected Study (12 units): Choose an addtional upper division upper division Economics classes exclusive of ECON 309 which may not be taken
for concentration credit. (With Economics Debarment approval, ECON 300 and an upper division Economics course may be substituted for ECON 100 and 101).

## English/Creative Writing

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (8 units): ENGL 184, 270B
Area 2. Introductory Study (3 units): Choose from ENGL 205, 206
Area 3. Advanced Study (6 units): Choose from ENGL 405, 406, 407
Area 4. Additional Selected Study (9 units minimum): Choose from ENGL 375, 384, 385, 386, 459, 467A, 467B, 469, 474, 475, 476A,B, 477A,B, 479, THEA 380

## English/Language and Composition

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundational Study (14 units): ENGL 184, LING 325, 420, 421
Area 2. Literature (4 units): Choose from ENGL 250A, 250B, 270A, 270B
Area 3. Additional Selected Study (6 units): Choose from the ENGL 300, 317, ENGL/LING 423, 426

## English Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) levels from:
Area 1. Foundation Study (8 units): ENGL 184, 363,
Area 2. American Literature Survey (4 units): Choose from 270A, 270B
Area 3. British Literature ( 3 units): Choose from ENGL 451, 452, 453, 455, 456, 458, 459, 462, 463, 467A, 477A, 478
Area 4. American Literature (3 units): Choose from ENGL 474, 475, 476A,B, 477A,B, 478
Area 5. Additional Selected Study (minimum of 6 units): Choose additional courses from those listed in areas 2, 3 and 4 above or from CWL 330A, 330B, ENGL 375, 384, 469, 479, 481, 482

## English/Technical Writing

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (7 units): ENGL 184, 317,
Area 2 Report Forms (6 units): Choose from ENGL 417, 418, 419
Area 3 Language Study (3 units): ENGL 320, LING 325
Area 4. Additional Selected Study (8 units): Choose from AH 307, 309, ET 300, ENGL 384, 405, 406, 407, ENGL/LING 423, ENGL 491, FEA 303, 380, 404, HIST 400I, IS 301
French
Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units): FREN 312A, 312B, 314, 411
Area 2. Additional Selected Study (12 units): Choose additional courses in French. Lower division (100-200) courses are only appropriate if taken prior to FREN 312 A or its equivalent.

## Geography

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation (9 units): Choose from GEOG 100, 140, 160
Area 2. Methods and Techniques ( 3 units): GEOG 380
Area 3. Systematic Geography [6 units: 3 from a) and 3 from b)]:
a) Choose from GEOG 460, 466, 470;
b) Choose from GEOG 440, 442, 444, 452, 455, 460, 466, 470 [No course used to satisfy a) may be used to satisfy b).]
Area 4. Regional Geography [ 6 units: 3 from a) and 3 from b)]:
a) Choose from GEOG 304, 306;
b) Choose from GEOG 304, 306, 309I, 316, 318, 320, 326 [No course used to satisfy a) may be used to satisfy b).]

## German

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (15 units): GERM 301, 302, 415, 416
Area 2. Additional Selected Study (minimum 9 units): Choose additional courses in German. Lower division (100-200) courses are only appropriate if taken prior to GERM 301 or its equivalent.

## History

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (3 units): HIST 301
Area 2. Area Study (18 units):
Choose 6 units each from three different areas:
World Area: Choose from HIST 211, 212, 492;
European Area: Choose from HIST 131, 132, 313, $314,316,317,318,332,333,335,336,337,339$, 341A, 341B, 433, 437;
British Area: Choose from HIST 351, 353, 356, 357; Latin American Area: Choose from HIST 362, 364, 462, 463;
United States Area: Choose from HIST 172, 173, 300, 371I, 372, 375, 376, 378, 379, 380, 469, 471, 472, 473, 474I, 477A, 477B, 478, 479, 480, 485A, 485B, 486, 489;
Asian Area: Choose from HIST 382A, 382B, 383A, 383B, 384, 385, 386, 406B, 407I, 488
Area 3: Additional Selected Study (3 units):
Choose an additional course from History Department offerings or from Area 2 courses not completed.

## Human Development

Students choosing this concentration must complete the following courses in the core program: ANTH 120, BIOL 205 or 207, PSY 100, or complete them as prerequisite units to the concentration and elective units toward the degree.

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units):
HDEV 307I, 357I, 360, 402

Area 2. Foundation Methodologies (8 units):
HDEV/C/LA 250, HDEV 320
Area 3: Area Study (6 units):
Choose 6 units from one area:
Biological Foundations Area: Choose from ANTH 318, 319, BIOL 301, PSY 141;
Psychological Foundations Area: Choose from EDP 305, PSY 331, 332, 333, 336, 341, 351, 356, 370, 438, 463;
Sociocultural Foundations Area: Choose from ANTH 454, ASAM 340, B/ST 410, CHLS 350/SOC 340, FCS 312I, 412, 413, SOC 100, 320, 345, 464;
Child Development Area: Choose from FCS 311, 312I, 314, 411, 412, 413, 433;
Gerontology Area: Choose from BIOL 301, GERN 400I, SOC 464

## Italian

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Foundation Study (9 units): ITAL 312A, 312B, 314
Area 2. Additional Selected Study (15 units):
Choose additional courses in Italian. Lower division (100200) courses are only appropriate if completed prior to ITAL 312A or its equivalent.

## Japanese

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Foundation Study (12 units): JAPN 301, 302, 311, 312
Area 2. Additional Selected Study (12 units):
Choose additional courses in Japanese. Lower division (100-200) courses are only appropriate if completed prior to JAPN 301 or its equivalent.

## Latin American Studies

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:
Area 1. Language Study (8 units): SPAN 201A, 201B
Area 2. Discipline Emphasis (6 units):
Choose 6 units from one department, a minimum of 3 units to be at the upper division (300-400) level, from: ANTH 323, 324, 345, HIST 362, 364, POSC 358, 359, 461 * (*Only those semesters when content emphasizes Latin American development.)
Area 3. Breadth Study (6 units):
Choose 3 units each from two additional departments and courses listed in Area 2 or from GEOG 320
Area 4. Additional Selected Study (6 units):
Choose six additional units from courses listed in Area 2 and 3 or from: HIST 462, 463, SPAN 314, 341, 430, 441, 445, 491, 492

## Mathematics

Complete a minimum of 27 units with 12 units at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (15 units): MATH 122, 123, 224, 233
Area 2. Upper Division Foundation Study (6 units): MATH 364A, 380
Area 3. Additional Selected Study (6 units):
Choose from MATH 310, 341, 355, 361A, 381

## Music

Students choosing this concentration must demonstrate piano proficiency equivalent to MUS 120B, voice proficiency equivalent to MUS 122A, instrument proficiency equivalent to MUS 125 or complete the equivalency courses as corequisite units to the concentration and elective units toward the degree.

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Foundation Study (7 units): MUS 300, 490
Area 2. Selected Historical Study (3 units):
Choose from MUS 363I, 364I, 393
Area 3. Additional Selected Study (minimum 14 units):
Choose from courses listed in Area 2 not completed or from MUS 300, MUS 460, 469, 492, 493, 495

## Philosophy

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:
Area 1. Foundation Study (6 units):
Choose from PHIL 342, 363, 382
Area 2. Historical Focus (3 units): Choose from PHIL 413, 414, 421, 422, 423, 424
Area 3. Movements and Perspectives (3 units): Choose from PHIL 416, 417, 418, 419
Area 4. Additional Selected Study (12 units): Choose additional courses from Areas 1, 2 and 3 not completed or from other departmental offerings.

## Psychology

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:
Area 1. Lower Division Foundation Study (11 units): PSY 100, 200, 110
Area 2. Basic Processes (3 units): Choose from PSY 331, 332, 333, 336, 341, 342
Area 3. Personal and Social Processes (3 units): Choose from PSY 351, 356, 361, 365
Area 4. Additional Selected Process Study (3 units):
Choose from Area 2 and 3 classes not completed.
Area 5. Applications (3 units):
Choose from PSY 310, 314, 346I, 352, 354, 359, 366, 370, 375I, 378, 381
Area 6. Additional Selected Study (3 units): Choose an upper level (300-400) course from Areas 2, 3 , and 5 not completed or from other departmental offerings.

## Religious Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (6 units): Choose from R/ST 100, 103, 202
Area 2. Western Religious Traditions (3 units): Choose from R/ST 311, 312I, 314, 315I, 322, 331I, 471I, 472I, 485, 490
Area 3. Eastern Religious Traditions (3 units): Choose from R/ST 341I, 343, 344, 351
Area 4. Selected Upper Division Study (6 units): Choose from Areas 2 and 3 not completed or from R/ST 301, 302I, 375, 376I, 383I, 425I

Area 5. Additional Selected Study (6 units):
Choose from courses in Areas 1, 2, 3 and 4 not completed or from ASAM 380, CWL 342, HIST 333, PHIL 330, R/ST 499

## Russian

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units): RUSS 310, 312, 314
Area 2. Additional Selected Study (15 units):
Choose additional courses in Russian. Lower division courses are only appropriate if taken prior to RUSS 312 or its equivalent.

## Sociology

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units): SOC 100, 142, 335I
Area 2. Statistics (3-4 units): SOC 255
Area 3. Ethnic and Gender Issues (3 units):
Choose from SOC 325/W/ST 325, SOC 340/CHLS 350, SOC 346, 426
Area 4. Deviance and Social Control (3 units):
Choose from SOC 345, SOC/SW 423, SOC 440, 441I, 448
Area 5. Social Change and Global Issues (3 units): Choose from SOC 350, 420, 427
Area 6. Additional Selected Study (3 units):
Choose an upper level (300-400) from Areas 3, 4, and 5 not completed or from other departmental offerings.

## Spanish/Spanish American Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study (6 units): SPAN 300
Area 2. Foundation Study (6 units): SPAN 341, 445
Area 3. Selected Literary Study (6 units): Choose from SPAN 310, 441, 491
Area 4. Additional Selected Study (6 units): Choose additional courses in Spanish.

## Spanish/Spanish Linguistics and Culture

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study (6 units): SPAN 300
Area 2. Foundation Study (6 units): SPAN 425 (course no longer offered. See Concentration Adivsor for substitution), 426
Area 3. Linguistics and Culture Selected Study (6 units): Choose from SPAN 427, 430, 445
Area 4. Additional Selected Study (6 units): Choose additional courses in Spanish.

## Spanish/Spanish Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study ( 6 units): SPAN 300
Area 2. Foundation Study (6 units): SPAN 330, 430
Area 3. Selected Literary Study ( 6 units): Choose from SPAN 310, 439, 491, 492
Area 4. Additional Selected Study (6 units): Choose additional courses in Spanish.

## Speech Communication

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (9 units): COMM 130, 131 + 131W, 110
Area 2. Upper Division Foundation Study (9 units): COMM 300, 301, 309
Area 3. Selected Upper Division Study (3 units): Choose from COMM 331, 335
Area 4. Communication Contexts and Strategies (3 units): Choose from COMM 330, 412, 432, 436, 437.

## Courses (L/ST)

## 400. Evaluating Literacy (3)

Prerequisites: Limited to Liberal Studies majors, Track I, who have completed all AREA I Core requirements with a "C" or better grade and fulfilled the GWAR, or consent of Program Director.
Review, analysis, and assessment of K-8 California State Reading/Language Arts Content Standards and Curriculum Frameworks. Study of contemporary literacy theory and practice with focus on language, culture, literature, and development of literacy. Understanding of literacy assessment and its implications, determinations, and effects.
Letter grade only (A-F).

## 403. Civic Issues and Values (3)

Prerequisites: Limited to Liberal Studies majors, Track I, who have completed all Area IV Core requirements with a "C" or better grade.
Provides subject opportunities and experiential activities for students to learn to confront controversial issues, solve problems cooperatively, examine issues from multiple and dialogical points of view, and practice listening with understanding and empathy. Student literacy in the social sciences and ability to recognize and deal with the dynamics of a multicultural, multiethnic community will be assessed.
Letter grade only (A-F)

## 404. Arts and Values (3)

Prerequisite: Limited to Liberal Studies majors, Track 1, who have completed all Area V Core requirements with a " C " or better grade, or consent of Program Director.
Review, analysis, and assessment of K-8 California State
Visual and Performing Arts Content Standards and Curriculum Frameworks. Exploration of the relationship between arts criticism and various broader values (historical, social, aesthetic, ethical). Impact of religion, Enlightenment philosophy, modernism, and multiculturalism on the arts.
Letter grade only (A-F).

## 471. History/Social Science Content and Standards for Elementary Classrooms (3)

Prerequisite: Limited to Liberal Studies majors in the Integrated Teacher Education Program (ITEP), who have completed all Area IV Core requirements with a "C" or better grade.
Review, analysis and assessment of K-8 California State History/ Social Science Content Standards and Curriculum Frameworks. Inquiry and assessment of student literacy in the social sciences. Integrates geographical and historical analysis of California, Early American and Pre-Modern World history within a global context.
Letter grade only (A-F).

LINGUISTICS
College of Liberal Arts

## Department Chair

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Associate Professors
Malcolm A. Finney, Xiaoping Liang, Carol D. Lord

## Assistant Professors

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Undergraduate Advisor
Robert M. Hertz
Graduate Advisor
Malcolm A. Finney
CLAD Advisor
John J. Attinasi

## Administrative Coordinator

Phyllis L. Simon

Linguistics is the science of language. Linguistics majors study the nature of language, the similarities and differences among languages, the physical mechanisms of human languages (both spoken and signed), acquisition of languages, and socialization through languages. Areas include anthropological linguistics, psychological linguistics, sociolinguistics, and applied linguistics, including teaching English as a second foreign language.

The Department of Linguistics at CSULB offers an undergraduate major and minor in Linguistics, an Interdisciplinary CLAD Minor, a Certificate in Teaching English as a Second Language (TESL), and the MA with four Options: TESL, General, Special, and Language and Culture.

Students desiring general information should contact the department office. Advisors are available for individual appointments during the Fall and Spring semesters to assist students with information about degree requirements and about graduate study.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Linguistics (code LINGBA01) (120 units)

The following are department goals for students receiving the BA in linguistics:

- Students will demonstrate knowledge of the fundamental architecture of language in the domains of phonetics and phonology, morphology and syntax, and semantics and pragmatics.
- Students will demonstrate knowledge of the variety of structures by which diverse human languages realize this architecture.
- Students will demonstrate knowledge of the social functions of language and the role of language as a cultural institution.
- Students will demonstrate knowledge of language variation, including historical change and dialect variety.
- Students will demonstrate skills in studying language structure and use.
- Students will demonstrate knowledge of how people acquire first and second languages and the implications for language instruction and educational policy.
- Students will demonstrate skill in critical evaluation of language research and policy.
- Students will experience the opportunity to apply linguistic knowledge in a community setting.
- Students will be able to identify applications of linguistics and related career opportunities such as education, translation and computational linguistics.
- Students will demonstrate proficiency in English and in at least one other language.
- Students will value life-long learning in the field of linguistics.


## Requirements

Lower Division: (6 units) LING 101, 170
Upper Division:

1. 12 units - LING 325, 329, 420, 421.
2. 24 units - Select eight (8) courses from LING 413, 423, 425, 426, 428, 433, 470, 472, 485, 490 or PSY 438. Students may substitute up to 6 units of relevant upper-division coursework from other departments, with permission of the Linguistics advisor.

## Language Requirement

Sixteen (16) units or equivalent are required. Four semesters (or their equivalent) of a language other than English, with either: (a) two semesters of an Indo-European language plus two semesters of a non-Indo-European language or (b) four semesters of any one language. Students with prior language experience can pass language requirement by examination or other evidence.

## Minor in Linguistics (code LINGUM01)

A minor in Linguistics consists of a minimum of 21 units, with at least one course selected from each of five subject area categories. Although not required for the minor, foreign language courses are recommended. In selecting courses, students should be aware that some courses have prerequisites, including language proficiency.

Courses which are counted for a major may not also be counted for a minor, but students who have taken a course from any category as a part of their major may substitute an elective with approval of the Department Chair.

## Requirements

Select at least one course from each category:
Category I Introduction: ANTH 170, LING 363I;
Category II Phonology: CD 330, LING 420, FREN 414, GERM 303;
Category III Syntax: LING 421, FREN 411, SPAN 426;
Category IV Psycholinguistics and Neurolinguistics: EDSP 454, LING 329, PSY 438;
Category V Language, Culture, and Society: ANTH 412I, 413;
Electives to a program total of 21 units selected from: any course listed above, CHLS 403; LING 423, 426; PHIL 484; SPAN 427, and variable/special topics courses on linguistics subjects offered through the participating departments. These topic courses are shown on an approved list available in the participating departments.

## Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code COEDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units):

Culture: ANTH 421/LING 425 or EDP 432/EDEL 430
Language: EDSP 454 or LING/CD 329
Schooling: EDP/LING 485
Development: EDP 301, EDP 302, HDEV 307I, or PSY 361
2. Six additional units, selected with an advisor, from the following:
Culture: AIS 319; ASAM 319; B/ST 319; CHLS 319; W/ST 319; ANTH 329, ANTH412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430
Language: ANTH 170; CHLS 402; EDSP 454; LING/CD 329, LING/ENGL 327, LING 325, 363I, 472, 486.
Schooling: AIS 361; ASAM 310; B/ST 420; CHLS 340; EDP 305, 476, EDSP 350.
Development: EDP 301, 302; HDEV 307I; PSY 361.

## GRADUATE PROGRAMS

## Master of Arts in Linguistics

The program for the M.A. degree in linguistics is designed both for students who wish to pursue further graduate study and those seeking a terminal degree. The program seeks to blend theoretical and applied aspects of linguistics and draws from a variety of disciplines.

The M.A. degree in Linguistics offers three options and one concentration:

1. General Linguistics Option
2. Language and Culture Option
3. Teaching English as a Second Language Option
4. Special Concentration

Graduate assistantships may be available to qualified students.

## Prerequisites

1. A bachelor's degree with a 2.75 GPA for the most recent 60 units;
2. 21 units of undergraduate coursework as follows (can be taken at CSULB):
A. Fifteen (15) units in Linguistics; the following courses or equivalent: Introductory Linguistics (LING/ANTH 170 or LING 325), Language Acquisition LING 329, Phonology LING 420, Syntax LING 421, language variation (LING, $379,413,425,426,438$ or 472 ), and
B. Six (6) units either in linguistics or a language-related field (such as TESL, rhetoric, literature in another language, cross-cultural communication, cognition, or artificial intelligence)

## Advancement to Candidacy

1. Satisfaction of the general university requirements for advancement to candidacy, including prerequisites, the Graduation Writing Assessment Requirement (GWAR), and GPA.
2. Completion of the foreign language requirement, either:
A. Two courses of a foreign language at the upper division level, or the equivalent, or
B. Two courses of an Indo-European language and two courses of a non-Indo European language, or equivalent.
3. Completion of six units of course work within the program, exclusive of any classes used to meet prerequisites.
4. Approval of the candidate's graduate program by the Chair, the Associate Dean for Instructional Programs of the College of Liberal Arts, and any other individuals identified by relevant university policy.
5. Advancement must take place no later than the semester before the student graduates.

## Requirements

1. A minimum of 30 units of approved upper division and graduate courses for the thesis path or a minimum of 33 units of approved upper division and graduate courses of the comprehensive examination path, including
2. A minimum of 21 units at the 500 or 600 level;
3. The completion of the five course core requirement for the degree;
4. The completion of requirements of one of the options designated in the program;
5. Completion of one of two culminating experiences:
A. A thesis and its accompanying oral defense and oral examination (LING 698, 6 units).
B. The comprehensive examination and its accompanying graduate paper (LING 697, 1 unit).
6. A GPA of 3.00 on all courses included in the program.

## Core

1. Two courses from the following three: LING 620, 625, 633.
2. One course from the following: LING 540, 610, 650.
3. One course from the following: LING/PSY 539.
4. One course from the following: LING 580/ANTH 570, LING 596.

## General Linguistics Option (code LINGMA02)

The option includes a 15-unit core and 12-18 units of additional selections, including general linguistics courses from the core, such that students take LING 620, 625, 633, 540, 610, 650 and LING/PSY 539. Additional courses selected with an advisor will total 33 units (including LING 698, 6 units) in the thesis pathway, or 34 units (including LING 697, 1 unit) in the comprehensive exam pathway.

## Language and Culture Option (code LINGMA03)

This option includes the 15 unit core, with LING 540 strongly advised in category 2 ; the specialization includes: LING 533/ANTH 530, ANTH 630, LING 540, and approved selections from LING/ANTH 413, LING 423, LING 425/ ANTH 421, LING 470/ANTH/W/ST 475, LING 650, ANTH 560, ANTH 597; and 697 or 698 for the culminating experience.

## Teaching English as a Second Language Option (code LINGMA04)

The TESL option includes a 15 unit core, and either the Comprehensive Exam or Thesis Pathway.
Comprehensive Exam Pathway: (19 units) required: LING $486,500,561,562,593$, and either Ling 460 or 575; plus 1 unit of comprehensive directed research, LING 697.
Thesis Pathway: (18 units) required: LING 486, 593, and two of the following: LING 500, 561, or 562 ; plus 6 units of thesis research, LING 698.

## Special Concentration (code LINGMA01)

This concentration is 12-18 units. Students electing this concentration must [1] consult with the Program Director or Graduate Coordinator about their proposal; [2] submit a written justification for the course of study they wish to take, including [3] a list of the classes which are proposed to meet the objectives of this special program. Both the written justification and the course list are subject to approval. Other requirements of the program (e.g. a five course core, GPA, culminating experiences, etc.) cannot be waived or altered by use of the special concentration.

Students wanting graduate credit for certain 400-level courses must consult with the Graduate Advisor before enrolling.

Courses with an I suffix are not available for graduate credit.
Note: Graduate students are required to register for the higher (500-level) course whenever a course has a double number. Students may not repeat courses by taking them under different prefix designations, numbers or titles unless the course description specifically permits.

## Certificate in Teaching English as a Second Language (code ENGLCT02)

The Certificate in Teaching English as a Second Language (TESL) is open to students from any field who desire training for teaching English to speakers of other languages. While the program may be begun as an undergraduate, at least 18 units must be completed as a post-baccalaureate student.

## Recommendations

Students are strongly urged to include foreign language study as a part of their undergraduate curriculum, particularly those wishing the Language Development Specialist Certificate in addition to the TESL Certificate. Students planning to teach in California schools (K-12) must also include appropriate credential requirements in their total program.

## Prerequisites

1. A baccalaureate degree with a GPA of 2.50 on the last 60 units.
2. One course in basic English linguistics.

## Requirements

1. Twenty-four units, including:
A. 20 taken in residence;
B. 18 taken as a graduate student;
C. 12 taken at a 500-600 level.

NOTE: Categories (a-c) combined need only equal 24 units.
2. A GPA of 3.0 on all work included in the program.
3. Fulfill the Graduation Writing Assessment Requirement (GWAR).
4. Eight courses, one each in eight different categories:
A. One course in basic ESL Methodology, LING 486;
B. One course in cross-cultural communication, selected from LING *425 (ANTH *421) or ED P 573;
C. One course in Language Acquisition, selected from $C D$ 329, LING 329 or EDSP 454;
D. One course in intermediate English linguistics, selected from LING 420 or 421;
E . One course in testing and assessment, selected from CD 460 or LING 562;
F. One course in curriculum, selected from LING 500 or LING 561;
G. One course in specialized methodology, selected from CD 560, LING *460, LING 575/ED P 578, ED P 576, LING 589/ED P 589);
H. Three units of a practicum (LING 593).

Students who have taken equivalent courses in the above categories but need units to complete certificate requirements may elect to take courses as advised.

Students wanting graduate credit for 400 -level courses which have not been approved for graduate credit by the home department must consult with the Program Director
or Graduate Advisor before enrolling. Courses with an "I" suffix are not available for graduate credit, but may be used for the Certificate if they were taken while the student was an undergraduate.

## Courses (LING)

## LOWER DIVISION

## 101. Introduction to the World's Languages (3)

## Prerequisite: ENGL 100.

General introduction to roles that the world's languages have played historically, socially, culturally and politically. Nature of language, how languages operate, differ, and relate to each other. Contact between languages and change over time. Spoken and written forms of language.

## 170. Introduction to Linguistics (3)

Prerequisite/corequisite: Any G.E. Foundations course.
Nature of language; its relation to culture; language structure and processes of change; language universals, contrasts and relationships.
Same course as ANTH 170.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 325. Modern English Grammar (3)

Introduction to current descriptions of English grammar, with reference to structural and transformational models of American English as well as to traditional ones.
Not open for credit to students with credit in ENGL 325. Letter grade only (A-F).

## 327. Essentials of the English Language (3)

Prerequisites: ENGL 100 or its equivalent.
Introduction to English language study for credential candidates, including the history of the English language, key models of English grammar, and a variety of applied topics ranging from semantics and dialect study to current research in the teaching of English.

## Same course as ENGL 327.

## 329. Introduction to Language Acquisition (3)

Introduction to the study of the acquisition of first and second languages. Linguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The influence of developmental stages and social and cultural factors on the individual.
Same course as C D 329. Letter grade only (A-F).

## 339. Linguistics for Crosscultural Academic Development [in Secondary School Settings] (3)

Principles of language structure, variation and usage for educators. First and second language acquisition, and related social, cultural and political issues regarding language behavior in middle and high schools. Influences on language attitudes, maintenance and shift. Letter grade only (A-F). Same course as EDSE 339.

## 363I. Implications of Human Language (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Human language as examined from the perspectives of linguistics and related disciplines. Topics include language acquisition, individual and group differences in the acquisition and use of language, and the social meanings and cultural contexts of language use.

## 379. Sociolinguistics and Schooling (3)

Prerequisite: LING 329 or equivalent.
Study of language variation in relation to standard language development in society and individuals. Key sociolinguistic concepts: dialect, speech event, repertoire, language community, prescriptive vs. descriptive. Application to verbal classroom language and the development of academic speaking, reading and writing.
Letter grade only (A-F). Same course as EDEL 379.

## *413. Language and Culture (3)

Relation of language patterns to social life; problems of meaning in cross-cultural communication and language translation; practical application to business, government and religious contexts.
Not open for credit to students with credit in ANTH 440. Letter grade only (A-F). Same course as ANTH 413.

## 420. English Phonology (3)

Prerequisites: Consent of instructor.
Study of the phonology of American English, using articulatory phonetic, phonemic, and distinctive feature analyses.
Not open for credit to students with credit in ENGL 420 or 520. Letter grade only (A-F).
421. English Syntax (3)

Prerequisites: ENGL 325 or consent of instructor.
Study of the morphology and syntax of American English, using structural, transformational, and recent models.
Not open for credit to students with credit in ENGL 421. Seminar. Letter grade only (A-F).
*423. Semantics (3)
Study of meaning in language.
Same course as ENGL 423.
*425. Education Across Cultures (3)
Cross cultural perspectives on formal and informal education and socialization, using theory and methods from anthropology and linguistics. Cultural variation in schooling and multiculturalism in U.S. American classrooms. Cultural, linguistic and educational issues facing indigenous, minority and immigrant populations in schools.
Letter grade only (A-F). Same course as ANTH 421.
*426. History of the English Language (3)
Development of the English language from its beginnings to the present day.
Same course as ENGL 426.

## 428. Applied Linguistics (3)

Linguistic research applied to the study and teaching of linguistics and language skills.
Not open for credit to students with credit in ENGL 428/524. Letter grade only (A-F).
429. Language, Learning and the Developing Child: A Cross-cultural Perspective (3)
Explores the communicative-linguistic, cognitive, physical, and socio-emotional development of the child from the prenatal to adolescent periods across diverse cultures with an emphasis on language acquisition and the learning process.
Letter grade only (A-F). Not open for credit to students currently enrolled in the Liberal Studies program. Same course as EDP 428, CDFS 409, and EDEL 429.

## 431. Cultural and Linguistic Diversity in Schools (3)

Multicultural education, including concepts of culture, educational equity, social justice, multiple forms of diversity, and anti-bias/antiracist curriculum. Models of English language acquisition, bilingual education theory, and instructional accommodations for diverse students.
Letter grade only (A-F). Ten hours fieldwork. Same course as EDEL 431 and EDP 431.

## 433. Survey of Discourse Analysis (3)

Introduction to discourse analysis; language structure from the viewpoint of production. The structure of genres: conversation, narrative, exposition, and others; language in special settings. Discourse analysis in theoretical and applied linguistics. Pragmatics and discourse; developmental issues.
Not open for credit to students with credit in LING 530. (Discussion) Letter grade only (A-F).

## 441. Khmer Literacy for Khmer Speakers: Introduction (3)

Prerequisite: Fluent oral skills in Khmer.
First of a four-course sequence. Introduction to Khmer writing system. Practice in reading, decipherment, vowels, consonants and syllable combinations. Oral practice, honorifics, culturally appropriate interaction.
Letter grade only (A-F). Same course as A/ST 441.
442. Khmer Literacy for Khmer Speakers: Intermediate A (3)
Prerequisite: LING 441 or consent of instructor.
Second of a four-course sequence. Continued practice in Khmer writing system. Vocabulary development, reading and writing long sentences and simple text. Appropriate social and educational discourse.
Letter grade only (A-F). Same course as A/ST 442.

## 443. Khmer Literacy for Khmer Speakers: Intermediate

 B (3)Prerequisite: LING 442 or consent of instructor.
Third of a four-course sequence. Contextual reading for comprehension, culture and grammatical knowledge. Development of oral skills, through discussion of content, role play and verbal critique.
Letter grade only (A-F). Same course as A/ST 443.
444. Khmer Literacy for Khmer Speakers: Advanced (3)

Prerequisites: LING 443 or consent of instructor.
Fourth of a four-course sequence. Composition and written translation. Preparation for BCLAD tests 5 \& 6: Culture and Language of Emphasis. Reading authentic texts.
Letter grade only (A-F). Same course as A/ST 444.
*460. TESL Composition (3)
Prerequisites: Fulfillment of the GWAR.
Introduction to the rhetoric and composition of students with limited English proficiency. Attention to both the general principles of composition, and the specific issues that face students and teachers in an ESL context.
Letter grade only (A-F).

## *470. Language and Gender in Cross-Cultural Perspective (3)

Analysis of men's and women's communication in its social and cultural context; role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions of perceptions and stereotypes and their effect on communication.
Letter grade only (A-F). Same course as ANTH 475, W/ST 475.
472. Language and Discrimination (3)

Survey and analysis of discrimination on the basis of language as component of racial, ethnic, gender, and class discrimination. Historical and contemporary examples; related analysis of bias toward so-called non-standard varieties; analysis of the language of racism and sexism.
Letter grade only (A-F).
*485. Theoretical Foundations of Language Minority Education (3)
Introduction to theoretical foundations of language minority instruction. Historical and political context of development of educational language policies. Models of bilingual and English language development education.
Same course as EDP 485. Letter grade only (A-F).
*486. Foundations of Language Minority Instruction: Practice (3)
General introduction to practical foundations and historical development of language minority instruction. Current methods and techniques for language teaching and learning for English-as-a-Second-Language and English-as-a-Foreign Language. Community observations and classroom applications in bilingual and ESL settings.
Letter grade only (A-F).

## 490. Special Topics in Linguistics (1-3)

Prerequisite: Consent of instructor.
Investigation of topics of current interest and concern to students in linguistics and allied areas.
Topics will be announced in the Schedule of Classes. May be repeated to a miximum of 6 units with different topics.

## GRADUATE LEVEL

## 500. Educational Linguistics (3)

Prerequisites: Nine units of linguistics or consent of instructor.
Graduate introduction to role of language and linguistics in contemporary education; analysis of context of language acquisition; attitudes toward multilingualism; language policies which set guidelines and expectations for instruction; cultural factors which influence language acquisition.
Letter grade only (A-F). Same course as ED P 577.
533. Ethnography of Communication (3)

Prerequisite: Graduate standing.
Study of talk and other forms of communication from an ethnographic perspective. Emphasizes relevant methods and theories. Major topics presented include: language socialization, genres of speaking, intercultural communication, speech styles, strategic uses of language, and literacy.
Letter grade only (A-F). Same course as ANTH 530.

## 539. Language Acquisition (3)

Prerequisites: Six units of linguistics or upper division psychology, or consent of instructor.
Theory and research on acquisition of first and subsequent languages in children and adults. Psycholinguistic perspectives on phonological, syntactic, semantic, and pragmatic aspects of language. Interacting roles of cognitive processes, individual differences, social influences, and cultural context will be stressed.
Same course as PSY 539. Letter grade only (A-F).

## 540. Sociolinguistics (3)

Prerequisite: Nine units of linguistics or consent of instructor.
Study of the linguistic and social antecedents, correlates, and consequences of language variation in the individual and society. Integration of theoretical models and practical fieldwork.
(2 hrs seminar, 3 hrs lab.)
561. Second Language Curriculum Development (3) Prerequisite: LING 421 or consent of the instructor.
Study of the content of second language instruction, from nongrammatical, communicative approaches to content-based instruction. The course will look at both K-12 and adult language instruction.

## 562. Second Language Testing and Assessment (3)

Prerequisite: LING 421.
Testing and assessment of second language learners, including both standardized tests and teacher- developed modes of assessment
Letter grade only (A-F).

## 575. Literacy and Linguistics (3)

Prerequisite: Six units in linguistics or consent of instructor.
General introduction to field of literacy studies. Examines relationship between oral and written language, native language literacy and biliteracy acquisition, pedagogical practices and issues, and cognitive and sociocultural approaches to literacy development.
Letter grade only (A-F). Same course as ED P 578.

## 580. Linguistic Field Methods (3)

Prerequisite: An introductory linguistics course.
Introduction to linguistic field work with a native speaker of an unfamiliar non-European language. Phonetic transcription and investigation of phonological, morphological, and syntactic structures of the selected language within the context of linguistic universals.

Letter grade only (A-F). Same course as ANTH 570.

## 589. Adult Literacy and Language Diversity

Prerequisites: 3 units from EDP 578/LING 575; ENGL 510; ENGL 535; or from an instructor approved course in literacy studies or adult second language acquisition.
Issues in adult and family literacy/biliteracy, with special focus of the educational needs of language minority adults and families. Relationships among theory, policy and practice with attention to social economic and cultural characteristics of populations needing literacy services.
Letter grade only (A-F).
590. Advanced Special Topics in Linguistics (1-3)

Prerequisite: Consent of instructor.
Advanced study of special topics of current interest and concern to students in linguistics and allied areas.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 593. Practicum in TESL (3)

Prerequisite: LING 486.
Classroom experience in teaching English-as-a-Second-Language supplemented by reading, discussion and research. Students must be available to be assigned to regularly scheduled ESL classes five hours per week, as well as for meetings with the instructor. Letter grade only (A-F).

## 595. Qualitative Research Methods (3)

Comprehensive introduction to theory, nature, and use of qualitative methods in educational settings. Emphasis on application level experiences such as identifying and developing research problems appropriate for qualitative investigation, study design, qualitative/ethnographic data collection techniques, data analysis, data interpretation, and presentation of findings.
Same as EDP 595. Letter grade only (A-F).

## 596. Research in Linguistics (3)

Prerequisite: Advancement to candidacy for the M.A. in Linguistics.
Principles and practice of quantitative and qualitative research design, analysis and reporting. Access to sources, evaluation of published research, application of tools. Preparation of research proposals.
Letter grade only (A-F). (Seminar, 2 hours; Laboratory, 3 hours.)

## 597. Directed Study in Linguistics (1-3)

Prerequisite: Consent of instructor and advisor.
Directed study on issues and topics in Linguistics. Not intended to replace available courses.

## 610. Historical Linguistics (3)

Prerequisites: LING 420 and 421 or equivalent.
Advanced study of language change, language families, and language relationships using the methods of comparative linguistics.
(2 hours seminar, 2 hours laboratory) Letter grade only (A-F).
620. Seminar in Syntactic Theory and Analysis (3) Prerequisite: LING 421.
Theories and practices of selected views of syntax in contemporary linguistics. Topic may vary from semester to semester.
(Seminar, 2 hours; Laboratory, 3 hours.) Letter grade only (A-F).

## 625. Seminar in Phonetics and Phonology (3)

Prerequisite: LING 420.
Theory and practice of selected views of phonetics and phonology in contemporary linguistics.
(Seminar, 2 hours; Laboratory, 2 hours) Letter grade only (A-F).
633. Discourse and Grammar (3)

Prerequisite: LING 421 or consent of instructor.
Discourse analysis within linguistic theory and method. Focus on the relationship of discourse and grammar; relationship of morphosyntactic devices to discourse context and of information flow to grammar. Pragmatic motivation for grammatical systems. Relationships of grammar and genre.
Letter grade only (A-F).
650. Seminar in Bilingualism (3)

Prerequisites: LING 420, 421 or consent of instructor.
Advanced study of degrees of bilingualism and types of bilingual situations. Implications of bilingualism and bilingual social situations for linguistics and education.
Letter grade only (A-F).
697. Directed Research (1)

Prerequisite: Advancement to candidacy for the M. A. in Linguistics.
Research in linguistics on a topic connected with the Comprehensive Project and Examination for the Master's degree. Letter grade only (A-F). May be repeated to a maximum of 3 units.
698. Thesis (1-6)

Prerequisite: Consent of graduate committee.
Planning, preparation and completion of a thesis in linguistics.

# MANAGEMENT AND HUMAN RESOURCES MANAGEMENT <br> College of Business Administration 

Department Chair<br>Roger R. Stanton<br>Department Office<br>College of Business Administration (CBA) 321<br>Telephone<br>(562) 985-4753<br>Faculty<br>Professors<br>David J. Abramis, Phillip S. Chong, Sal Kukalis, Jonathan S. Monat, Roger R. Stanton<br>Associate Professor<br>Josh A. Arnold, Eric Hansen, Ted Shore<br>Assistant Professor<br>Linda O'Hara, Sabine Reddy, Judy Strauss, Tom Sy, Jun Yan<br>Administrative Support Coordinator<br>Debi Cannon-Rath

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

A minimum of 120 units required to graduate with an undergraduate business degree from CSULB. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/ Substitutions.

1. Lower Division:

ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115; and PHIL 160 or 170.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score (70\%) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300; ACCT 310; ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310 or 320, FIN 300; MGMT 300; MKTG 300, IS 301).
C. Completion Management Option requirements.
4. Elective courses to total 120 units required. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in Managment (code MGMTBS01) (120 units)

The objective of the management curricula is to prepare students for a successful career in management of the business enterprise. Attention is given to the need to create and maintain a desirable internal environment. Interface of that environment with the external environment in relation to success of the enterprise is considered. Philosophical basis for the practice of management, ethical considerations and human values are stressed. The student's exposure to theory and concepts leads to the acquiring of knowledge and skills to assume first professional positions and progress through middle and upper management careers.

## Requirements

## 1. MGMT 426

2. 12 units selected from MGMT 326, 405, 410, 411, 412, 413, 414, 421, 430, 454, 455.

## Option in Operations Management (code MGMTBS02) (120 units)

The objective of the operations management curriculum is to prepare and stimulate student competence in the conceptual, systematic and analytical tools prerequisite for entry level and advanced positions in goods-producing and service-orientated industries. Emphasis is placed on the systems approach which stresses the concepts, techniques and policies essential for the economical and effective design, operations and control of manpower, facilities, materials, capital and informational inputs of organizations. Students are introduced to productivity tools such as Total Quality Control, Manufacturing Resource Planning, Just-InTime Techniques. Simulation and Animation of Production Operations, Optimized Production Techniques, Kanban Systems, Japanese Productivity Techniques. Decision Support Systems.

## Requirements

15 units to be taken as follows:

1. Six units from MGMT 410, 411
2. Three to nine units from MGMT 412, 413, 414
3. Up to six units from MGMT 426, 430, 454, 455.

## Option in Human Resources Management (code MGMTBS03) (120 units)

The Human Resources Management Option is designed not only for those who have an interest in working in the functional areas of HRM, but also for everyone who wants to become a member of management at any level in either the private or the public sector of the economy. The faculty integrate the theoretical with the practical to produce graduates with highly marketable skills. The major objectives of this option are (1) to provide students with
theoretical foundations for understanding how employees are motivated to accomplish organizational goals, (2) to develop the practical skills necessary for employment in positions designed to attract, encourage, develop and retain human resources, (3) to develop an understanding of the theoretical and practical approaches to human resources management, (4) to develop aspiring leaders with a strong sense of ethics and social responsibility and an awareness of how societal changes necessitate organizational change. The curriculum emphasizes critical thinking, creative problem solving, and personal development to enhance managers' performance in a dynamic, changing, culturally diverse and globally expanding work environment.

## Requirements

1. HRM 361
2. 12 units selected from HRM 440, 445, 446, 458, 460, 462, 463, 465.

## Minor in Human Resources Management (code MGMTUMO1)

## Requirements

## 1. HRM 360, 361

2. 12 units selected from HRM 440, 445, 446, 458, 460, 462, 463, 465.

## Minor in Entrepreneurship (code CBA_UM01)

## Requirements

1. MGMT 300, MGMT 421
2. 12 units selected from ACCT 201; CBA 300; BLAW 220, $300,340,495$; HRM 360 ; IS $300,355,380,445,483$, 484; MKTG 300, 330, 492, 310, 410, 430, 465, 480, 490, 495; MGMT 495 (two topics) as approved by the Management area of the Management/HRM Department.

## Management Courses (MGMT)

## UPPER DIVISION

## 300. Principles of Management (3)

Prerequisite: Recommended: IS 310.
Principles and theories of management, organization theory, planning and control techniques. Management of the overall organization and the production/operations systems of organizations.
Letter grade only (A-F).

## 326. Management and Society (3)

Issues of concern to business managers in dealing with the social environment. Business responsibility to stockholders, employees, customers, the government, and society. Issues including profits, consumerism, product safety, pollution, government regulation, and social accountability.
Letter grade only (A-F).
*405. International and Comparative Management (3)
Prerequisites: MGMT 300, IS 301.
Functions of management in international business; comparative management studies, and the impact of the environment on management performance.
Letter grade only (A-F).

## 406. International Business Policy (3)

Prerequisite: MGMT 300, IS 301.
Developing multinational strategies and policies. International economics, economic development, international marketing, international finance, multinational planning, organization, and control. International transactions, economic and political integration, the competitiveness of countries, relations with host societies, and country studies. Case studies and research projects. Letter grade only (A-F).
*410. Materials Management (3)
Prerequisites: MGMT 300, IS 301.
Basic frameworks for managing material flows into, within, and out of organizations. Inventory models for independent demand items, material requirement planning, and distribution systems. Heavy emphasis on learning supported by MRP II tools and other computer resources.
Letter grade only (A-F).

## 411. Production Planning (3)

Prerequisites: MGMT 300, IS 301.
Demand management and production planning problems. Study of forecasting tools and techniques using available computer resources. Examination of aggregate planning, master scheduling, and capacity planning using the framework of an MRP II system.
Letter grade only (A-F).
412. Production Control (3)

Prerequisites: MGMT 300, IS 301.
Scheduling, controlling, and evaluating manufacturing activities at the shop-floor level. Shop order release, dispatching, priority control, queue management, and input/output monitoring using MRP II software. Job sequencing and scheduling, just-in-time production, Kanban control, and optimized-production-technology (OPT).Use of software and simulations.
Letter grade only (A-F).

## 413. Managing Quality for Productivity (3)

Prerequisites: MGMT 300 and recommended IS 310, IS 301.
Relationship between productivity and quality. Examination of the quality-assurance function, statistical quality control, and lot inspection. Relationship between productivity improvement, product quality, and manufacturing strategy.
Letter grade only (A-F).
414. Purchasing Management (3)

Prerequisites: MGMT 300, IS 301.
Functions, principles, and tools of purchasing management. Relationship of purchasing to other management functions. Use of MRP II systems to simulate purchasing decisions, monitor performance, and track costs.
Letter grade only (A-F).
421. Entrepreneurship and New Venture Creation (3)

Prerequisites: MGMT 300, IS 301.
Starting a new business. Being an entrepreneur in a free enterprise environment or an entrepreneur in an existing organization. Use of state-of-the-art theory to plan and evaluate business startups. Testing ideas with successful entrepreneurs and creating individual business plans.
Letter grade only (A-F).
425. Business Strategy and Policy (3)

Prerequisites: ACCT 310 or 320, MGMT 300, MKTG 300, FIN 300, fulfillment of the GWAR, IS 301.
Integration and application of knowledge theories and techniques derived from the study of business disciplines. Use of the case method and business simulations to formulate business strategies and plans. Written reports required.
Letter grade only (A-F).

## 426. Management and Information Systems (3)

Prerequisites: IS 300, 301.
Concepts for evaluation and design of decision support systems, management decision models, socio-technical strategies for implementing information system changes.
Letter grade only (A-F).
*430. Project Management (3)
Prerequisite: MGMT 300, IS 301.
Selection of project ideas and implementation of projects. Roles of team member and project manager. Project planning and organization. Budgeting, scheduling, monitoring and controlling, including computerized network models and project management software packages. Final project analysis and termination.
Letter grade only (A-F).

## *454. Organization Theory (3)

Prerequisite: MGMT 300, IS 301.
Design and adaptation of organizations. Development of tools for analysis and design. Exploration of organizational structure The organization, as a system of authority, a political system, and an information and coordination device. Cases and computer simulations.
Letter grade only (A-F).

## 455. Managerial Decision Making Processes (3)

Prerequisites: MGMT 300 and either HRM 360 or 361, IS 301.
Setting objectives, identifying and evaluating alternative courses of action, choosing and implementing the decision, and controlling results. Use of research to explain the influence of task, people, organization, and environment on the decision process. Processes to improve decision making skills.
Letter grade only (A-F).

## 495. Selected Topics (1-3)

Prerequisites: GPA of 3.0 in Management courses, plus consent of instructor, IS 301.
Topics and issues of critical importance to management.
Development of critical thinking, writing, and speaking skills. Topics to be announced in Schedule of Classes each semester.
May to repeated to 6 units. Letter grade only (A-F).
497. Directed Studies (1-3)

Prerequisites: Consent of Instructor,
Individual projects, research, and study of advanced nature in management.
Letter grade only (A-F)

## GRADUATE PREREQUISITE

## 500. Business Policies, Operations and Organizations

 (3)Prerequisite: MBA standing. Recommended preparation: IS 310 or 410.

Theory and philosophies of administrative organizations systems, information systems, management functions, decision making, strategy and policy formulation, operations planning, and control systems.
Letter grade only (A-F).

## GRADUATE LEVEL

## 510. Management for Engineers (3)

The transition of the engineer to manager; planning and organizing technical activities; selecting and managing projects, selecting and managing teams, techniques of control and communication.
Not open for credit to MBA students. Letter grade only (A-F).

## 511. Project Management (3)

Theory and philosophies of project management. Problems involved with assembling an effective team. Control issues, techniques, and tools appropriate for the pre-project proposal stage to program conclusion.
Not open for credit to MBA students. Letter grade only (A-F).
512. Engineering Management Information Systems (3)

Development and management information systems used by middle and higher management of technological and scientific organizations in the control of many facets of their function.
Not open for credit to MBA students. Letter grade only (A-F).
513. Cases in Engineering Management (3)

Application of newly acquired technical skills. Cases from engineering, technical or scientific programs of industrial firms or government agencies. Includes cases from new ventures as well as mature firms in both product and process development.
Not open for credit to MBA students. Letter grade only (A-F).
541. Industrial Logistics (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent.
Systems analysis and synthesis of the general logistics system containing the marketing, production, and transportation activities. Definition of system components of outputs, activities and inputs. Specification and quantification of the major functional relationships interrelating these components.
Letter grade only (A-F).

## 542. Enterprise Structure and Operation (3)

Prerequisites: MBA standing and MGMT 500 or equivalent.
General enterprise system composed of the logistics, money, information, talent and decision sub-systems. Components of each of the sub-systems and their interrelationships in the operation of the total enterprise. Analysis via systems approach of defining outputs, activities and inputs..
Letter grade only (A-F).

## 543. International Business Policy (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent, 9 hours recommended of 500/600 level courses in the area of international business.
Current theory and principles of international business management pertaining to problems of formulating policy and developing strategies and tactics in the multinational corporation. Case studies, readings, logistic analysis and research report. Letter grade only (A-F).
645. Seminar in Management Policy and Problems (3) Prerequisites: MBA standing plus MGMT 500 or equivalent. History of management thought, business organizations, strategies and policies, executive control; managerial problems.
Letter grade only (A-F).
646. Seminar in Managing Mergers and Acquisitions (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent.
Reasons for trend of mergers and acquisitions. Examination of the m and a process. Coordination and integration across business boundaries, exploiting synergies, strategic vs. operating focus, hierarchical structure of combined companies, learning transfer, and the rationalization of shared activities.
Letter grade only (A-F).

## 647. Seminar in Management Planning and Control Systems (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent.
Analysis of planning and control systems in management. Use of case studies and problems.
Letter grade only (A-F).

## 695. Selected Topics (3)

Prerequisites: MBA standing.
Topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisites: MBA standing, consent of instructor.
Individual study under the direction of the faculty.
Letter grade only (A-F).

## Human Resources Management Courses (HRM)

## 360. Organizational Behavior (3)

Overview of the dynamics of human behavior in organizations and implications for management. Motivation, personality and attitudes, human perception, groups and teams, norms, power and politics, conflict, learning, communication, job design, organizational culture, organizational change, leadership and cross-cultural issues.
Letter grade only (A-F).

## 361. The Human Resource Function (3)

Overview of human resource functions designed to attract, motivate, develop and retain employees. Planning, job analysis, recruitment, selection, placement, appraisal, compensation and benefit administration, training and development, communications, labor management relations and the international environment. Discussion,, cases and student presentations.
Letter grade only (A-F).
*440. Collective Bargaining (3)
Prerequisite: HRM 361, IS 301.
Roles of management, labor and government in structuring work environments. Nature of the process of negotiation and conflict resolution in organizations.
Letter grade only (A-F).

## *445. Compensation Administration (3)

Prerequisite: HRM 361, IS 301.
Compensation and benefits management as an integrating human resource management process. Development and administration of equitable compensation and benefit programs. Job analysis and evaluation, pay structures, salary surveys, individual compensation, incentive, systems and benefits administration. Discussion, cases and simulations.
Letter grade only (A-F).
446. Leadership and Motivation in Organizations (3) Prerequisite: HRM 360, IS 301.
Determinants of effective leadership and successful methods of motivating employees to achieve organizational goals. Identification of appropriate styles of leadership and methods for developing and applying leadership skills. Case studies, research, and simulation exercises.
Letter grade only (A-F).

[^2]460. Current Issues in Human Resource Management (3) Prerequisite: Either HRM 360 or HRM 361; IS 301.
Current and emerging issues concerning the management and development of people and organizations. Motivation, leadership, job performance, hiring, compensation, planning, selection, staffing, training, performance appraisal, careers, and quality of work life. Discussion, projects, and outside research.
Letter grade only (A-F).

## *462. Labor-Management Relations (3)

Prerequisite: IS 301.
Principles and practices influencing labor-management relationships. Development, aims, structure, and functions of labor and employer organizations; collective bargaining process; labor law and governmental intervention; impasse resolution; unions and minorities; employee organizations in government and professional sectors; comparative international systems.
Letter grade only (A-F).
*463. Organizational Training and Development (3)
Prerequisite: HRM 360 or 361, IS 301.
Review of the field of training and development including learning theory, training needs assessment, design and delivery of training and development programs, evaluation, and program management. Career development and organizational development. Case studies, research, simulation exercises, and student presentations.
Letter grade only (A-F).
*465. Personnel Selection and Appraisal (3)
Prerequisite: HRM 361, IS 301.
Theories and techniques guiding personnel selection and appraisal processes. Determining staffing needs, conducting job analyses, writing job descriptions, developing recruitment strategies, affirmative action plans, and designing resumes. Designing effective appraisal systems and conducting productive performance appraisals. Cases and simulations.
Letter grade only (A-F).
497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, and 3.0 GPA or higher in human resources management courses.
Individual projects, study and research of advanced nature in human resources management.
Letter grade only (A-F).

## GRADUATE LEVEL

## 510. Behavioral Science for Engineers (3)

Prerequisites: MBA standing.
Individual, group and organizational structure designs. Interpersonal relationships that are peculiar to managing and directing professionals. Managerial applications of behavior science concepts and research findings.
Not open for credit to MBA students.
652. Seminar in Human Resources Management (3)

Decisions and actions that impact management. Problems of productivity, employee commitment, employee development, employment law, and compensation. Staffing, training and development, performance appraisal, counseling, leadership and motivation, reward systems, participation and delegation, and discipline. Discussion, cases, simulations, and presentations.
Letter grade only (A-F).

## 654. Seminar in Negotiation and Conflict Management (3)

Various forms of opposition interactions within organizations. Interpersonal, intragroup, and intergroup conflict. Distinguishing between functional and dysfunctional conflict, identifying sources and causes of conflict, and examining alternative styles and methods of conflict management. Discussion, cases, simulations, and presentations.
Letter grade only (A-F).
655. Seminar in Motivation and Organization Change (3)

Human motivation and organizational change. Traditional and modern theories of work motivation and change. Psychology and management of motivation, organizational change and development. Management skills, policies, and organizational characteristics that facilitate the creation of motivating, flexible organizations.
Letter grade only (A-F).

## 657. Seminar in Leadership Skills (3)

Development of leadership abilities. Effectiveness of numerous approaches to leadership from both managerial and psychological viewpoints. Understanding leadership styles and abilities of self and others through assessment. Personality, situational factors, group processes, followership, and implications for leadership training
Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisites: MBA standing, consent of instructor.
Individual study under the direction of the faculty.
Letter grade only (A-F).

## MARKETING

College of Business Administration

Department Chair<br>Richard L. Celsi<br>Department Office<br>College of Business Administration CBA 354<br>Website<br>http://www.csulb.edu/depts/marketing<br>Telephone<br>(562) 985-4769<br>Faculty<br>Professors

Richard L. Celsi, Z. S. Demirdjian, Forrest E. Harding, Pamela Miles Homer, David Horne, Ingrid Martin, Praveen Soni, Terrence H. Witkowski, Mary Wolfinbarger

## Assistant Professors

Sungwook Min
Administrative Supprt Coordinator
Bud Towers

For MBA degree requirements see Business Administration.

## Bachelor of Science in Business Administration

## Requirements

A minimum of 120 units are required to graduate with an undergraduate business degree from CSULB. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/ Substitutions.

1. Lower Division: ACCT 201; ECON 100, 101; BLAW 220; MATH 114, 115; and PHIL 160 or 170.
2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. Requires one of the following:
A. Passing score (70\%) on the Computer Proficiency Examination (CPE).
B. Completion of IS 233 with Credit (Cr) or "C" or better grade in a transfer equivalent course.
3. Upper Division:
A. CBA 300; ACCT 310; ECON 333; FIN 300; BLAW 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.
B. MGMT 425 (Capstone) must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310 or 320, FIN 300; MGMT 300; MKTG 300, IS 301).
C. Completion of Marketing Option requirements.
4. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

## Option in Marketing (code MKTGBS01) (120 units)

The discipline of Marketing, which is fundamental to all business enterprises, is largely a social process. The justification of any enterprise, be it involved in service or in the production or delivery of goods, is that it meets the needs of individuals or segments of society. The function of marketing is to determine those needs, to provide the most effective means of informing actual and potential customers of the availability of the services and goods they require, and to deliver such services and goods.

## Requirements

1. Nine units selected from MKTG 310, 330, 410, 420, 430, 437, 465, 480, 492
2. MKTG 470, 490, 494.

## Minor in Marketing (code MKTGUM01)

## Requirements

1. MKTG 300
2. 15 units selected from MKTG 310, 330, 420, 430, 437, $465,470,480,490,492,495$ or CBA 300 as approved by the Marketing Department.

## Prerequisites

1. IS 310 is a prerequisite for MKTG 470
2. MKTG 480 is a prerequisite for MKTG 481
3. MKTG 300 is a prerequisite for MKTG 420, 430, 465, $470,480,481,490$ and 492.

## Courses (MKTG)

## UPPER DIVISION

## 300. Marketing (3)

Recommended preparation: ECON 300.
Relation of marketing system to other activities in the firm. Firms and domestic and world marketing environments. Economic and social effects on marketing. Human behavior's effects on marketing, communications, information systems,management problems and their solutions.

## 310. Retail Concepts and Policies (3)

Overview of the retail system. Retail decision making emphasized in relation to these areas: store operation and management, merchandise assortment and pricing, store location and layout, advertising and sales communication, consumer analysis, retail information systems, retail accounting and control.
330. Mass Marketing Communications: Advertising (3)

Principles and practices of advertising. Social and economic importance of advertising and its relation to modern business organization. Importance of an advertising plan, preparation of advertisements, copy and layout, media planning and application of information technology.

## 410. Services Marketing (3)

Prerequisite: MKTG 300, IS 301.
Applies marketing management techniques, marketing strategies, and processes for service evaluation and service quality improvement to service marketing. Characteristics of services marketing, service management, service evaluation, techniques for improvement, services marketing in global environments, and marketing techniques.
Letter grade only (A-F).

## 420. Sales Management (3)

Prerequisite: MKTG 300, IS 301.
Management of the sales force. Sales analysis, forecasting techniques, account and territory management, and negotiations. Integrating the personal computer into the sales function. Computer simulation of the decision process in sales management.

## 430. Promotion Strategies (3)

Prerequisite: MKTG 300, IS 301.
Management of the promotional mix. Behavioral and data-based foundations for promotional strategies. Budgeting, allocation of promotional resources, and media models. Integration of promotional strategies into the marketing mix. Applications of information-based technologies and tools for analysis.

## 437. Internet Marketing (3)

Prerequisites: MKTG 300 suggested, IS 301.
Internet history, Internet technology and appliances. Consumer behavior (domestic and International) on the Internet, business models, advertising and promotions. Website design, pricing and marketing research using the Internet. Emphasis on quality and service. Focus on recent developments in e-commerce.
Letter grade only (A-F).

## 465. Business To Business Marketing (3)

Prerequisite: MKTG 300, IS 301.
Analysis of industrial products, markets, institutions, and strategy. Comparison with consumer marketing. Emphasis on business-tobusiness negotiations and promotions. Integration and application of information technologies.

## 470. Marketing Research (3)

Prerequisites: MKTG 300, IS 301, 310.
Fundamentals of marketing and industrial research as an aid to problem-solving in business. Familiarization with current industry research efforts. Data collection, interviewing, and report-generation software. Analysis of data. Project, instrument and sampling designs.

## 480. International Marketing (3)

Prerequisite: MKTG 300, IS 301.
Marketing systems and marketing operations in various countries and multinational market groups. Impact of foreign environments and information technologies. In-depth international marketing studies and formulation of appropriate strategies.

## 481. International Marketing Management (3)

Prerequisites: MKTG 300, 480, IS 301. MKTG 481 provides students with a problem solving approach to assessing and exploiting global marketing opportunities.
Use of a problem solving approach for assessing and exploiting global marketing opportunities. Development of a strategic marketing plan for entering/maintaining foreign markets. Taught as a special topics seminar.
Letter grade only (A-F).

## 490. Consumer Behavior (3)

Prerequisite: MKTG 300, IS 301.
Application of psychological, sociological, anthropological, and economic theories to the understanding of consumer behavior. Consideration of personality, attitudinal, group, social class, subcultural, and demographic factors to marketing strategy.

## 492. New Products/New Services (3)

Prerequisite: MKTG 300 or consent of instructor, IS 301.
Entrepreneurship and innovation management. Process and strategy of new product or services marketing. Developing a business plan for a product or service introduction.

## 494. Marketing Management (3)

Prerequisites: MKTG 300, IS 301; senior marketing majors or consent of instructor.

Strategies and techniques in marketing management. Application of prior material from marketing curriculum to problems and cases. Emphasis on problem identification and solution.
Letter grade only (A-F).
495. Selected Topics (1-3)

Prerequisites: Consent of instructor and a GPA of 3.0 in marketing, IS 301.
Topics of current interest in marketing selected for intensive study.
May be repeated to a maximum of 6 units. Topics will be announced in the Schedule of Classes.

## 497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, on Dean's List and a 3.0 GPA or higher in marketing.
Individual projects, study and research of advanced nature in marketing.

## GRADUATE PREREQUISITE

## 500. Marketing Concepts (3)

Prerequisite: MBA standing required. Overview of the decision process in marketing.
Overview of decision process in marketing. Consideration of functional areas and interaction with total operations of the firm. Application of information technology to development of marketing strategy and planning.
Letter grade only (A-F).

## GRADUATE LEVEL

## 610. Seminar in Services Marketing (3)

Prerequisite: MKTG 500.
Problems and strategies for service businesses. Problems including inability to inventory, difficulty in synchronizing demand and supply, and difficulty in controlling quality. Cases and exercises in banking, health care, retailing, financial planning, consulting, professional services, and communication.
Letter grade only (A-F).

## 661. Seminar in Marketing Policies (3)

Prerequisite: MKTG 500.
Solving practical, profit-oriented problems in marketing.
Sophisticated case analysis and discussion. Application of marketing principles and technologies, including information systems, databases, behavioral theories, and management techniques.
Letter grade only (A-F).

## 663. Seminar in Advertising Policies (3)

Prerequisite: MKTG 500.
Discussion and analysis of advertising situations, objective setting, creative strategies, media strategies and models, and evaluation. Applications of mass communication theories and marketing databases.

Letter grade only (A-F).

## 665. Seminar in Marketing Research (3)

Prerequisites: MKTG 500 and IS 601.
The role of research in the solution of marketing problems.
Research methods in collecting, analyzing, and interpreting information for business use. Survey and experimental approaches included. Case studies and/or class projects required.
Letter grade only (A-F).
666. Seminar in International Marketing (3)

Prerequisite: MKTG 500.
Analysis of problems and opportunities in international marketing operations. Consideration of entry strategies, competitive strategies, domestication, and nationalization problems. Use of marketing information systems to evaluate opportunities and threats in foreign markets.
Letter grade only (A-F).

## 668. Seminar in Consumer Behavior (3)

## Prerequisite: MKTG 500.

Topics in the behavioral sciences as they apply to marketing. Application of psychological, sociological, anthropological, and economic theories and models to the understanding of buyer behavior and the development of marketing strategy.
Letter grade only (A-F).
669. Seminar In Strategic Planning (3)

Prerequisite: MKTG 661.
The role and use of marketing research and information systems as the basis for development and implementation of marketing strategy. Case studies and/or class projects required.
Letter grade only (A-F).
695. Selected Topics (3)

Prerequisites: MBA standing, consent of instructor.
Topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F).

## 697. Directed Studies (1-3)

Prerequisites: MBA standing, consent of instructor and Department Chair.
Individual study under the direction of the faculty.
Letter grade only (A-F).

# MATHEMATICS AND STATISTICS <br> College of Natural Sciences and Mathematics 

Department Chair<br>Robert A. Mena<br>Undergraduate Associate Chair<br>Kent G. Merryfield<br>Graduate Associate Chair<br>Saleem H. Watson<br>Department Office<br>Faculty Offices (FO) 3-120<br>Telephone / FAX<br>(562) 985-4721 / (562) 985-8227<br>Website<br>www.csulb.edu/depts/math/<br>Faculty<br>\section*{Professors}

Joseph Bennish, Linda H. Byun, Samuel G. Councilman (Emeritus, 2004), Linda J. DeGuire, Carl H. Dorn, Morteza Ebneshahrashoob, Yihnan David Gau, Melvin D. Lax, William G. Margulies, Robert A. Mena, Kent G. Merryfield, Angelo Segalla, James D. Stein, Lindsay A. Tartre, Robert C. Valentini, Ngo N. P. Viet, Derming Wang, Alan M. Safer, Saleem H. Watson, Arthur K. Wayman (Emeritus, 2005), William K. Ziemer

## Associate Professors

Bruce J. Chaderjian, Scott W. Crass, Tangan Gao, Eun Heui Kim, Norma A. Noguera, YongHee Kim-Park,

## Assistant Professors

Sung Eun Kim, Olga Korosteleva, William L. Murray, Florence A. Newberger, Wen-Qing Xu
Administrative Support Coordinator
Linda Dixon
ELM Coordinator
Larry Brownson
Undergraduate Advisors
Kent G. Merryfield
William L. Murray
Melvin D. Lax (Applied Math)
Alan M. Safer (Statistics)
Honors in the Major Advisor
Kent G. Merryfield
Credential Advisor
Angelo Segalla
Graduate Advisors
Norma A. Noguera (Mathematics Education)
Alan M. Safer (Statistics)
Ngo N. Viet

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

Mathematics is fundamental to all scientific knowledge, including not only the traditional natural sciences but increasingly the social and economic sciences. The increasing applicability of mathematical methods has been enhanced and accelerated by the development of the computer. Mathematics is also a vital aid to critical and philosophical thinking and, at least to some, a thing of beauty in itself.

The Department of Mathematics and Statistics offers instruction for students at all levels beyond high school mathematics. Its courses provide the computational and analytic skills needed for a variety of majors, as well as the advanced theoretical topics for specialists in mathematics. Its various degree options are intended to provide the student with the knowledge and techniques needed for scientific, management and statistical applications, and also the theoretical understanding needed for teaching, graduate study and lifelong professional growth. Beyond these, it hopes to instill a spirit of curiosity and healthy skepticism towards mathematical statements and results - a willingness to ask "is this true?" and "why?", and to try to find the answers.

Students desiring information should contact the Department Office for referral to the appropriate faculty advisor: Undergraduate Advisor, Graduate Advisor, and/or Credential Advisor.

## Concurrent and/or Summer Enrollment at Another College

Students who wish to take coursework at a community college or other college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with. See 'Concurrent Enrollment' and 'Transfer of Undergraduate Credit' in this Catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

## Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' Science Safari to Success (for first-time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Jensen Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

## Undergraduate Programs

The Mathematics and Statistics Department offers four undergraduate degree programs in mathematical sciences:

## Bachelor of Science in Mathematics (code MATHBS01) (120 units)

The student in this program is required to take a selection of fundamental courses in algebra, statistics, and analysis. It is the most flexible program, in which the greatest number of electives may be chosen by the student. Elective upper division mathematics courses are available which meet the needs of students preparing for a variety of goals, including careers in industry and government, secondary teaching, and graduate study. Students who do not wish to complete the requirements for a declared option in applied mathematics or statistics may wish to elect courses in one or both of these areas as part of this degree program.

## Requirements

Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 233, 247; CECS 174; PHYS 151.

Upper Division: A minimum of 30 units of approved upperdivision mathematics courses selected in consultation with a major advisor, to include MATH 341 or 347, 361A, 361B, 364A, 380 and 444 but not 370A or 370B. To allow flexibility, only 18 of the required 30 units are specified. Students should choose the remaining 12 units after discussing career goals and interests with an advisor. For additional information and to obtain an advisor, contact the Department Office.

## Option in Applied Mathematics (code MATHBS02) (120 units)

The student who is most interested in the applications of mathematics has a choice of two suboptions: the first concentrates on the applications in science and engineering while the second concentrates on the applications to economics and management. In both suboptions, courses are specified in the major areas of applied mathematics and in the field of application. This option prepares students for careers in business, industry or government or for graduate study.

## Requirements

Suboption I: Area of application in Science and Engineering
Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174; PHYS 151, 152; PHYS 254 or EE 211 or CE 205.
Upper Division: MATH 323, 361A, 361B, 364A, 364B, 380, 470. A minimum of 9 units from the following: MATH 381, $382,423,461,463,472,479,485$. A minimum of 9 units from one of the following three groups:
A. PHYS 310, 340A, 340B, 350, 410, 422, 450;
B. EE 310, 370, 382, 411, 460, 482; C. CE 335, 359, 437, 438, 458; MAE 371, 373.

Suboption II: Area of Application in Economics and Management
Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174; ECON 100 and 101, or ECON 300.
Upper Division: MATH 323, 361A, 361B, 364A, 380, 381, 382,485 . A minimum of 6 units from the following
courses: MATH 364B, 423, 463, 470, 479, 480. A minimum of 15 units from one of the following two groups:
A. ECON 310, 311 required; and 9 units selected from: ECON 333, 410H, 411H, 420, 433, 485, 486.
B. ECON 333, MGMT 410 required; and 9 units selected from MGMT 411, 412, 413, 414, 426.

## Option in Statistics (code MATHBSO4) (120 units)

This option provides students with a foundation in statistical methods. The courses required ensure that the student understands both how the techniques are mathematically derived and how they are applied. Statistical analysis is an essential part of any scientific investigation. It is a vital tool in monitoring the quality of products and services and in forecasting. This option prepares students for interesting and rewarding careers in industry, government, and for graduate study in statistics and other quantitative fields.

## Requirements

Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174

Upper Division: A minimum of 34 units of upper-division mathematics courses to include MATH 323, 361A, 380, 381, 382, 480 and 483 but not MATH 370A or 370B.

## Option in Mathematics Education (code MATHBS03) (120 units)

This option is for students preparing to teach mathematics at the secondary school level. Completion of this Option meets subject matter competence requirements for the Single Subject Preliminary Credential Mathematics (code165).

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Math teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb. edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Mathematics Education Advisor early to plan their program.

## Requirements

Lower Division: MATH 122, 123, 224, 233, 247; one of the following: ENGL 101 or 300 or 317; and one of the following sequences: PHYS 151, 152; or PHIL 170, 270; or eight units of a foreign language.

Upper Division: MATH 310, 341, 355, 361A* or 364A, 380, 381, 410, 444; MTED 301, 411; EDSS 300M; and 3 additional upper division Mathematics units excluding MATH 370A, 370B. (* denotes preferred course)

## Honors in Mathematics

Students majoring in the B.S. in Mathematics (all options) who would like an enriched academic program that includes a thesis may complete the Honors in the Major program described here. May also complete General Honors through the University Honors Program, in which case the thesis requirement may be met through the Honors in the Major.

## Admission Requirements

Admission to the Honors in the Major program will be determined by the Honors in the Major Advisor.

1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B.S. in Mathematics or any of its options.
3. Completion of MATH 122, 123, 224, 247, and at least two upper division MATH courses at the time of entry with grades of at least " $C$ " in each course. Students may apply during the semester in which they expect to complete these courses.
4. GPA's of at least 3.500 in all courses in the major and in all upper division courses in the major at the time of application.
5. Submission of an application describing the student's academic background, reasons for applying, and willingness to commit to completion of the requirements, including a thesis.
6. Letter of recommendation from a CSULB faculty member familiar with the student's work and abilities.

## Graduation Requirements

1. GPA of at least 3.500 in all upper division courses in the major and in all courses in items 3,4 , and 5 , below.
2. Completion of all requirements for the chosen option of the B.S. in Mathematics.
3. Completion of at least one of the following courses: MATH 347, 423, 451, 461, 463, 472, 479. These courses may be included among the upper division units for the major, in item 2, if allowed in the student's major.
4. Completion of at least three units of any combination of MATH 491 and/or MATH 496.
5. Completion of 3 units of MATH 498H, Senior ThesisHonors.
6. It is a requirement for this Honors in the Major program that the 6 units of MATH 491, 496, and 498H be in addition to the Mathematics Department course requirements for the B.S.
7. Presentation of thesis results in a public forum. This forum could be at a meeting of a scientific or professional organization or a campus or departmental forum, subject to the approval of the Honors in the Major Advisor.
Substitutions to this program must be approved by the Honors in the Major Advisor.

## Minor in Mathematics (code MATHUM01)

## Requirements

The Minor in Mathematics is available to any student not majoring in Mathematics or Applied Mathematics.

The student must complete 23 or more semester units as follows:

MATH 122, 123, 224, 247, and 9 units of upper-division mathematics courses to include MATH 361A but not 370A.

The student may replace MATH 123 and 224 by MATH 222 and one more 3 unit upper-division mathematics course (excluding MATH 370A) not used to meet the above upperdivision requirements.

## Minor in Applied Mathematics (code MATHUM02)

## Requirements

The Minor in Applied Mathematics is available to any student not majoring in Mathematics or Applied Mathematics. The student must complete 27 or more semester units as follows:

Lower Division: MATH 122, 123, 224, 247
Upper Division: MATH 323, 364A or 370A, 380 and one
course selected from MATH 364B, 381, 382, 423, or 470.
The student may replace MATH 123 and 224 by MATH 222
and one more course from MATH 364B, 381, 382, 423, 470
not used to meet the above upper division requirements.

## Minor in Statistics (code MATHUM03)

## Requirements

The Minor in Statistics is available to any non-Mathematics major. The student must complete 26 or more semester units by following one of two sequences:
Sequence One: MATH 122, 222, 247, 380, 381, and any three of the following: MATH 323, 382, 480, 483, 484, and/or 487.
Sequence Two: MATH 122, 123, 224, 247, 380, 381, and any two of the following: MATH 323, 382, 480, 483, 484, and/or 487.

## GRADUATE PROGRAMS

## How to Apply

See Department's website: www.csulb.edu/depts/math/
To apply for admission to a graduate program in the
Department of Mathematics and Statistics, you must apply to the department and to the university.

To apply to the department, send the following to the Graduate Advisor:

- complete college transcripts (not necessarily official)
- appropriate Prerequisite Worksheet (available online at above website or from the Department Office);
- Pure Mathematics Prerequisite Worksheet;
- Applied Mathematics Prerequisite Worksheet;
- Applied Statistics Prerequisite Worksheet.

Application Deadlines:
June 1 for admission in fall semesters
December 1 for admission in spring semesters

## Master of Science in Mathematics (code MATHMS01)

## Prerequisites

1. A bachelor's degree in mathematics, or a bachelor's degree with a minimum of 24 upper division units in mathematics from an accredited college or university;
2. A grade of "C" or better in MATH 247, 361A-B, 364A and 444, or their equivalents. Deficiencies will be determined by the Graduate Advisor.

## Advancement to Candidacy

In addition to University requirements, the student must have completed all prerequisite courses listed above with no grade less than "C". Students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and should file for Advancement upon completion of at least six units (and no more than nine units) of the Program, with at least a 3.0 GPA.

## Requirements

1. A minimum of 30 graduate and approved (*) upper division units in mathematics including:
A. Three of the following courses MATH 540A, 550A, 561 A , or 562 A .
B. Two additional courses selected from MATH 540B, 550B, 561B, or 562B.
C. An additional 3 units of 500 -level mathematics courses.
2. Complete one of the following:
A. Pass a comprehensive written examination in two areas of Pure Mathematics. Specific requirements for passing of the comprehensive examinations can be found on the Mathematics and Statistics Department website at www. csulb.edu/depts/math.
B. Subject to the approval of the Graduate Committee of the Department of Mathematics and Statistics, write a thesis in mathematics and defend it orally.

## Option in Applied Mathematics (code MATHMS02)

## Prerequisites

1. A bachelor's degree in mathematics, physics, or engineering, or a bachelor's degree with at least 24 upper division units in mathematics from an accredited college or university.
2. A grade of "C" or better in MATH 247, 323, 361A-B, 364A, and 380, or their equivalents. Deficiencies will be determined by the Graduate Advisor.

## Advancement to Candidacy

In addition to University requirements, the student must have completed all prerequisite courses listed above, with no grade less than "C". Students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and should file for Advancement upon completion of at least six units (and no more than nine units) of the Program, with at least a 3.0 GPA.

## Requirements

1. A minimum of 30 graduate and upper division units approved by the graduate advisor, and including:
A. MATH 463, 479, 563, 570 and 576.
B. At least 6 units of applied mathematics courses selected from MATH 423, 470, 485, 564, 574, 575, and 577.
C. At least three units selected from the courses in above section 1.B. not used to satisfy that requirement, or from MATH 364B, 381, 382, 461, 472, 480, 562A, 580, 581, 584, 586, and 587.
D. At least 18 units of graduate mathematics courses (numbered 500 or above) including any such courses used to meet requirements (A), (B), and (C) above and including at least 15 units other than MATH 697 or 698.
2. Complete one of the following:
A. Pass a comprehensive written examination in two subjects of Applied Mathematics. Specific requirements for passing of the comprehensive examinations can be found on the Mathematics and Statistics Department website at www.csulb.edu/depts/math.
B. Subject to the approval by the Graduate Committee of the Department of Mathematics and Statistics, write a thesis in applied mathematics and defend it orally.

## Option in Applied Statistics (code MATHMS03)

1. A bachelor's degree in mathematics, physics, engineering, computer science, or statistics, or a bachelor's degree with at least 24 upper division units in mathematics from an accredited college or university.
2. A grade of "C" or better in MATH 247, 323, 361A, 380, 381, or their equivalents.

## Advancement to Candidacy

In addition to University requirements, the student must have completed all prerequisite courses listed above, with no grade less than "C." Students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and should file for Advancement upon completion of at least six units (and no more than nine units) of the Program, with at least a 3.0 GPA.

## Requirements

1. A minimum of 30 graduate and approved (*) upper division units in mathematics including:
A. MATH 580, 581, 590.
B. Four additional courses selected from MATH *382, *484, 582, 583, 584, 585, 586, 587, 593.
C. At least 18 units of graduate courses (numbered 500 or above) including any such courses used to meet requirements $(A)$ or (B) above and including at least 15 units of graduate mathematics courses other than MATH 697 or 698.
2. Complete one of the following:
A. Pass a comprehensive written examination in two areas of statistics. Specific requirements for passing the comprehensive examinations can be found on the Department of Mathematics and Statistics website at www.csulb.edu/depts/math.
B. Subject to the approval of the Graduate Committee of the Department of Mathematics and Statistics, write a thesis in statistics and defend it orally.

## Option in Mathematics Education for Secondary School Teachers (code MATHMS04)

Option in Mathematics Education for Secondary School Teachers is designed for people holding a California Single Subject teaching credential in mathematics and teaching in middle, junior high, or high schools. This option will give students greater expertise in mathematics and mathematics education (curriculum, teaching, learning, assessment and research). The program includes a blend of courses from pure and applied mathematics as well as mathematics education, and also may include coursework from the College of Education.

## Prerequisites

1. A bachelor's degree in mathematics or mathematics education, or a bachelor's degree with at least 24 upper division units in mathematics from an accredited college or university.
2. A California Single Subject Credential in mathematics
3. Coursework in mathematics should include MATH 247, 310, $341,355,380$, and 361A or 364A or equivalent with a grade of "C" or better.

## Advancement to Candidacy

In addition to University requirements stated elsewhere in this Catalog, must have completed prerequisites above and must have satisfied the Graduation Writing Assessment Requirement (GWAR). Must file for Advancement to Candidacy after completion of at least 6 units (and recommend filing before completing 9 units) of Program of Study, with at least a 3.0 grade point average. Program of Study must be approved by Mathematics Education Graduate Advisor, Mathematics \& Statistics Department Chair, Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and Dean of Graduate Studies.

## Requirements for the Option in Mathematics Education for Secondary School Teachers

1. A minimum of 30 units of graduate level or approved upper division coursework which includes the following:
A. A minimum of 9 graduate or approved upper division units of mathematics (those marked by * in the CSULB Catalog), including at least one 500-level mathematics course. If not previously taken for BS or credential, this course of study must include MATH 410 and 444.
B. A minimum of 15 graduate units of mathematics education including:
1) MTED 511 and 512; and
2) At least 9 units in mathematics education chosen in consultation with the Mathematics Education Graduate Advisor from the following courses: MTED 540, 550, 560, 580, 590, 695
C. A minimum of 6 units of approved upper division or graduate electives from mathematics, mathematics education, or approved College of Education courses, chosen in consultation with the Mathematics Education Graduate Advisor. If the student plans to teach at the Community College level, she/he must take at least 18 units of graduate or approved upper division mathematics from parts $A$ and $C$. If the student intends to do a thesis or project he/she must take EDP 520.
2. Complete one of the following three options:
A. Pass a comprehensive written examination in mathematics education and in one area of pure or applied mathematics;
B. Subject to the approval of the Mathematics Education Committee of the Department of Mathematics and Statistics, write a thesis in mathematics education and defend it orally (MTED 698);
C. Pass one comprehensive written examination in mathematics education or in one area of pure and applied mathematics and complete a project in mathematics education (MTED 697), subject to the approval of the Mathematics Education Committee of the Department of Mathematics \& Statistics.

## Mathematics Education Thesis

Students choosing the thesis option must consult with the Mathematics Education Graduate Advisor to select a thesis advisor. A thesis is then written in consultation with the mathematics education faculty advisor who will guide the student in choosing the thesis topic and supervise the process of writing the thesis. After a thesis topic is chosen it must be approved by the Mathematics Education Committee. A thesis committee of three faculty members, including the thesis advisor is then chosen to approve the final work. During the writing of the thesis, students must enroll in MTED 698.

## Mathematics Education Project

Students choosing the research project option must seek out a Faculty Advisor in mathematics education. A project is then written in consultation with the mathematics education faculty advisor who will guide the student in choosing a topic and supervise the process of writing the project report. After a project topic is chosen it must be approved by the Mathematics Education Committee. During the writing of the project report, students must enroll in MTED 697.

## Mathematics Courses (MATH)

Satisfying the Entry-Level Math (ELM) requirement (see
"Undergraduate Programs" section of this Catalog) is a prerequisite for all mathematics courses and mathematics education courses except MATH 1 and 10. Please contact the ELM Coordinator in the Department of Mathematics and Statistics for details regarding the ELM test score.

## LOWER DIVISION

## 1. Elementary Algebra and Geometry (3)

Prerequisite: Appropriate ELM score.
Arithmetic review, elementary algebra, and some basic geometry concepts.
Cannot be taken for credit toward a university degree. Credit/No Credit grading only. Not open for credit to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so. (Lecture 3 hrs .)

## 10. Intermediate Algebra (3)

Prerequisite: Appropriate ELM score.
Polynomial, rational, and radical expressions and equations; rational exponents; solutions and graphs of linear, quadratic, and rational inequalities; systems of linear equations; operations, inverses, and graphs of functions; logarithmic and exponential functions and their applications.
Cannot be taken for credit toward a university degree. Credit/No Credit grading only. Not open for credit to students who have credit in MATH 10E are exempt from the ELM or who have not yet taken the ELM but are required to do so.
(Lecture 3 hrs.)
10E. Intermediate Algebra (3)
Prerequisite: Appropriate ELM score. Polynomial, rational, and radical expressions and equations; rational exponents; solutions and graphs of linear, quadratic, and rational inequalities; systems of linear equations; operations, inverses, and graphs of functions; logarithmic and exponential functions and their applications.
Cannot be taken for credit toward a university degree. Credit/No Credit grading only. Not open to students who have credit in MATH 10, are exempt from the ELM or have not yet taken the ELM but are required to do so. (Lecture 2 hrs, activity 2 hrs)

## 101. Trigonometry (3)

Prerequisites: MATH 10 or equivalent.
Trigonometric functions and applications. Complex numbers.
Not open for credit to students with credit in MATH 117 or 122. (Lecture 3 hrs.) (CAN MATH 8)

## 103. Mathematical Ideas (3)

Prerequisites: Three years of high school mathematics, or the equivalent.
Surveys variety of concepts in undergraduate mathematics. Includes elementary logic, numeration systems, rational and real numbers, modular number systems, elementary combinatorics, probability and statistics, using real world examples.
Not open for credit to students with credit in any MATH course numbered greater than 103, or the equivalent. (Lecture 3 hrs.) (CAN MATH 2)

## 112. College Algebra (3)

Prerequisites: Three years of high school mathematics or equivalent.
Linear and quadratic equations and systems: matrices and determinants; theory of equations; polynomial, exponential and logarithmic functions and their graphs; permutations and probability.
Designed for students majoring in a life or social science.
Not open for credit to students with credit in MATH 115, 117, 119A, 120, or 122. (Lecture 3 hrs.)

## 114. Finite Mathematics (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent.
Combinatorial techniques and introduction to probability. Equations of lines and systems of linear equations, matrices, introduction to linear programming.
Not open for credit to students with credit in MATH 233 or 380.
(Lecture 3 hrs.) (CAN MATH 12)

## 115. Calculus for Business (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent.
Functions, derivatives, optimization problems, graphs, partial derivatives. Lagrange multipliers, integration of functions of one variable. Applications to business and economics. Emphasis on problem-solving techniques.
Not open for credit to students with credit in MATH 119A, 120 or 122. (CAN MATH 34) (Lecture 3 hrs.)

## 117. Precalculus Mathematics (4)

Prerequisites: Three and one half years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) and one half year of trigonometry (or MATH 101), or the equivalent.

Polynomial, rational, exponential, logarithmic, and trigonometric functions. Complex numbers, conic sections, graphing techniques.
Not open for credit to students with credit in MATH 122. (CAN MATH 16)(Lecture 3 hrs., problem session 2 hrs.)

## 119A. Survey of Calculus I (3)

Prerequisties: A grade of "C" or better in MATH 112 or MATH 117, or appropriate MDPT placement.
Functions, limits and continuity, differentiation and integration of functions of one variable including exponential, logarithmic, and trigonometric functions. Graphing, optimization, parametric equations, integration by substitution and by parts, numerical integration. Applications to the life sciences. Emphasis on problem solving.
Not open for credit to students with credit in MATH 115, 120 or 122. (CAN MATH 30) (Lecture 3 hrs.)

## 119B. Survey of Calculus II (3)

Prerequisites: MATH 119A or 122.
Functions of several variable, partial derivatives, optimization. First order differential equations, second order linear homogeneous differential equations, systems of differential equations. Probability, random variables, difference equations. Introduces matrices, Gaussian elimination, determinants. Life science applications. Emphasis on problem solving.
Not open for credit to students with credit in MATH 123 or 224. (CAN MATH 32) (Lecture 3 hrs.)

## 120. Calculus for Technology (4)

Prerequisites: Three and one-half years of high school mathematics including one year of geometry, two years of algebra, and one semester of trigonometry, or the equivalent.
Real and complex numbers and functions; limits and continuity; differentiation and integration of functions of one variable. Introduces calculus of several variables. Science and technology applications.
Not open for credit to students with credit in MATH 122. (Lecture 3 hrs., problem session 2 hrs.)

## 122. Calculus I (4)

Prerequisties: A grade of "C" or better in MATH 117 or High School Trigonometry, or appropriate MDPT placement.
Continuous functions. Derivatives and applications including graphing, related rates, and optimization. Transcendental functions. L'Hospital's Rule. Antiderivatives. Definite integrals. Area under a curve.
(Lecture 3 hrs., problem session 2 hrs.) (CAN MATH 18)

## 123. Calculus II (4)

Prerequisite: A grade of "C" or better in MATH 122.
Applications of the integral. Techniques of integration. Infinite series including convergence tests and Taylor series. Parametric equations. Polar coordinates. Introduces differential equations.
Not open for credit to students with credit in MATH 222. (CAN MATH 20) (Lecture 3 hrs., problem session 2 hrs.)

## 180. Statistics for Everyday Life (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent.
Exploratory data analysis, methods of visualizing data, descriptive statistics, misuse and manipulation of data in statistical analysis, probability, binomial and normal distributions, hypothesis testing, correlation and regression, contingency tables.
(Lecture 3 hrs.) (CAN STAT 2)

## 222. Intermediate Calculus (4)

Prerequisite: A grade of "C" or better in MATH 122.
Integration by parts and by partial fractions. Numerical integration. Improper integrals. Infinite series including series convergence tests and Taylor series. Vectors. Partial derivatives and directional derivatives. Double integrals. Introduces differential equations.
Enrollment restricted to CECS majors. Not open for credit to students with credit in MATH 123. Letter grade only (A-F). (Lecture 3 hrs., activity 2 hrs.)

## 224. Calculus III (4)

Prerequisite: A grade of "C" or better in MATH 123 or 222.
Vectors and three-dimensional analytic geometry. Partial derivatives and Lagrange multipliers. Multiple integrals. Vector calculus, line and surface integrals. Green's Theorem, Stokes' Theorem and the Divergence Theorem.
(Lecture 3 hrs., problem session 2 hrs. ) (CAN MATH 22)

## 233. Fundamental Concepts for Advanced Mathematics (3)

Prerequisite: A grade of "C" or better in MATH 123 or 222.
Fundamentals of logic and set theory, counting principles, functions and relations, induction and recursion, introduction to probability, elementary number theory, congruences. Introduces writing proofs. (Lecture 3 hrs.)

## 247. Introduction to Linear Algebra (3)

Prerequisite: MATH 222 or prerequisite or corequisite: MATH 224.
Matrix algebra, solution of systems of equations, determinants, vector spaces including function spaces, inner product spaces, linear transformations, eigenvalues, eigenvectors, quadratic forms, and applications. Emphasis on computational methods.
(Lecture 3 hrs.) (CAN MATH 26)

## 297. Directed Study (1-3)

Prerequisite: Consent of instructor.
For students who wish to undertake special study, at the lower division level, which is not a part of any regular course, under the direction of a faculty member. Individual investigation, studies or surveys of selected problems.

## UPPER DIVISION

## 310. History of Early Mathematics (3)

Prerequisite/Corequisite: completion of, or concurrent enrollment in a 200-level mathematics course.
History of mathematics through seventeenth century, including arithmetic, geometry, algebra, and beginnings of calculus. Interconnections with other branches of mathematics. Writing component; strongly recommended students enrolling have completed the G.E. A. 1 requirement.
(Lecture 3 hrs .)

## 323. Introduction to Numerical Analysis (4)

Prerequisites: MATH 222 or 224 , and a course in computer programming.
Numerical solution of nonlinear equations, systems of linear equations, and ordinary differential equations. Interpolating polynomials, numerical differentiation, and numerical integration. Computer implementation of these methods.
(Lecture-discussion 3 hrs., problem session 2 hrs .)
341. Number Theory (3)

Prerequisites: MATH 123 or 222, and at least one of MATH 233, 247, 310; recommended, MATH233 or 247.
Divisibility, congruences, number theoretic functions, Diophantine, equations, primitive roots, continued fractions. Writing proofs.
(Lecture 3 hrs .)

## 347. Linear Algebra (3)

Prerequisites: MATH 233 and 247.
In-depth study of linear transformations, vector spaces, inner product spaces, quadratic forms, similarity and the rational and Jordan canonical forms. Writing proofs.
(Lecture 3 hrs.)

## 355. College Geometry (3)

Prerequisite: MATH 247.
Transformations, motions, similarities, geometric objects, congruent figures, axioms of geometry and additional topics in Euclidean and non-Euclidean geometry. Writing proofs.
(Lecture 3 hrs.)
361A. Introduction to Mathematical Analysis I (3)
Prerequisites: MATH 222 or 224, and MATH 233 or 247.
Rigorous study of calculus and its foundations. Structure of the real number system. Sequences and series of numbers. Limits, continuity and differentiability of functions of one real variable. Writing proofs.
(Lecture 3 hrs.)
361B. Introduction to Mathematical Analysis II (3)
Prerequisite: MATH 361A.
Riemann integration. Topological properties of the real number line. Sequences of functions. Metric spaces. Introduction to calculus of several variables. Writing proofs.
(Lecture 3 hrs.)

## 364A. Ordinary Differential Equations I (3)

Prerequisites: MATH 222 or 224 , and prerequisite or corequisite MATH 247.

First order differential equations; undetermined coefficients and variation of parameters for second and higher order differential equations, series solution of second order linear differential equations; systems of linear differential equations; applications to science and engineering.
(Lecture 3 hrs .)
*364B. Ordinary Differential Equations II (3)
Prerequisite: MATH 364A or 370A.
Existence-uniqueness theorems; Laplace transforms; difference equations; nonlinear differential equations; stability, Sturm-Liouville theory; applications to science and engineering.
(Lecture 3 hrs.)
370A. Applied Mathematics I (3)
Prerequisite: MATH 222 or 224.
First order ordinary differential equations, linear second order ordinary differential equations, numerical solution of initial value problems, Laplace transforms, matrix algebra, eigenvalues, eigenvectors, applications.
Not open for credit to mathematics majors. (Lecture 3 hrs .)

## 370B. Applied Mathematics II (3)

Prerequisite: MATH 370A.
Arithmetic of complex numbers, functions of a complex variable, contour integration, residues, conformal mapping; Fourier series, Fourier transforms; separation of variables for partial differential equations. Applications.
Not open for credit to mathematics majors. (Lecture 3 hrs .)

## 380. Probability and Statistics (3)

Prerequisite: MATH 222 or 224.
Frequency interpretation of probability. Axioms of probability theory. Discrete probability and combinatorics. Random variables. Distribution and density functions. Moment generating functions and moments. Sampling theory and limit theorems.
(Lecture 3 hrs.)
*381. Mathematical Statistics (3)
Prerequisites: MATH 247 and 380.
Estimation and hypothesis testing. Maximum likelihood and method of moments estimation. Efficiency, unbiasedness, and asymptotic distribution of estimators. Neyman-Pearson Lemma. Goodness-of-fit tests. Correlation and regression. Experimental design and analysis of variance. Nonparametric methods.
(Lecture 3 hrs.)

## *382. Random Processes (3)

Prerequisites: MATH 247 and 380.
Further topics in probability. Markov processes. Renewal theory.
Random walks. Queueing theory. Poisson processes. Brownian motion. (Lecture 3 hrs.)

## 410. History of Modern Mathematics (3)

Prerequisites: MATH 247, 310 and at least three of the following: MATH 233, 341, 355, 361A, 380.
History of mathematics from seventeenth century onward. Development of calculus, analysis, and geometry during this time period. Other topics discussed may include history of probability and statistics, algebra and number theory, logic, and foundations.
(Lecture 3 hrs .)
*423. Intermediate Numerical Analysis (3)
Prerequisites: MATH 247 and 323.
Numerical solutions of systems of equations, calculation of eigenvalues and eigenvectors, approximation of functions, solution of partial differential equations. Computer implementation of these methods.
(Lecture 3 hrs.)

## 444. Introduction to Abstract Algebra (3)

Prerequisites: MATH 233 and 247 and at least one of MATH 341 or 347.
Groups, subgroups, cyclic groups, symmetric groups, Lagrange's theorem, quotient groups. Homomorphisms and isomorphisms of groups. Rings, integral domains, ideals, quotient rings, homomorphisms of rings. Fields. Writing proofs.
Not open for credit to students with credit in MATH 444A. (Lecture 3 hrs.)
*451. Differential Geometry (3)
Prerequisite: MATH 364A or 370A.
Structure of curves and surfaces in space, including Frenet formulas of space curves; frame fields and connection forms; geometry of surfaces in Euclidean three space; Geodesics and connections with general theory of relativity.
(Lecture 3 hrs .)
*461. Introduction to Complex Analysis (3)
Prerequisite: MATH 361A.
Theory and applications of complex variables. Analytic functions, integrals, power series and applications.
Not open for credit to students with credit in MATH 562A. (Lecture 3 hrs.)
*463. Multivariable Calculus (3)
Prerequisites: MATH 224, 247, and 361B.
Topology of Euclidean spaces. Partial derivatives. Derivatives as linear transformations. Inverse and implicit function theorems. Jacobians, vector calculus, Green's and Stokes' theorems. Variational problems.
(Lecture 3 hrs .)
*470. Introduction to Partial Differential Equations (3)
Prerequisite: MATH 370A or 364A.
First and second order equations, characteristics, Cauchy problems, elliptic, hyperbolic, and parabolic equations. Introduction to boundary and initial value problems and their applications. (Lecture 3 hrs.)
*472. Fourier Analysis (3)
Prerequisite: MATH 364A or 370A.
Theory of Fourier series and Fourier transforms. Physics and Engineering applications. Parseval's and Plancherel's identifies. Convolution. Multi-dimensional transforms and partial differential equations. Introduction to distributions. Discrete and fast Fourier transforms.
(Lecture 3 hrs.)

## *479. Mathematical Modeling (3)

Prerequisite: MATH 247; 364A or 370A; 323; and one additional upper-division mathematics course or consent of instructor.
Application of mathematics to develop models of phenomena in science, engineering, business, and other disciplines. Evaluation of benefits and limitations of mathematical modeling.
(Lecture 3 hrs .)

## 480./590. Regression Analysis (3)

Prerequisites: MATH 247, 380; prerequisite or corequisite MATH 381. (Undergraduates enroll in MATH 480; graduates enroll in MATH 590.)
Simple linear regression: estimation and inference, prediction, analysis of residuals, detection of outlier, use of transformations. Multiple linear regression: influence diagnostics, mult-colinearity, selection of variables, simultaneous estimation and inference, validation techniques. Statistical software for data analysis used. Letter grade only (A-F). (Lecture 3 hrs.)

## 483./593. Multivariate Statistical Analysis (3)

Prerequisites: MATH 381; prerequisite/corequisite MATH 480. (Undergraduates enroll in MATH 483; graduates enroll in MATH 593.)

Discriminate analysis, principal components, factor analysis, cluster analysis, logistic regression, canonical correlation, multidimensional scaling, and some nonlinear techniques. Statistical software used.
Letter grade only (A-F). (Lecture 3 hrs .)
*484. Actuarial Science (3)
Prerequisites: MATH 381 or consent of instructor.
Statistical techniques applied to risk management. Expected utility theory, individual risk models, compound Poisson distributions and processes, ruin probability and first surplus, stop-loss and proportional reinsurance, statistical survival distributions and life tables, life annuity, actuarial present values, and premiums determination.
Letter grade only (A-F). (Lecture 3 hrs .)
*485. Mathematical Optimization (3)
Prerequisites: MATH 247 and at least one of MATH 323, 347 or 380.
Linear and nonlinear programming: simplex methods, duality theory, theory of graphs, Kuhn-Tucker theory, gradient methods and dynamic programming.
(Lecture 3 hrs.)

## 487./587. Statistical Simulation (3)

Prerequisite: MATH 381 or consent of instructor. (Undergraduates enroll in MATH 487; graduates enroll in MATH 587.)
Simulation modeling techniques; generation of discrete and continuous random numbers from given distributions; Monte Carlo methods; discrete event simulations, statistical analysis of simulated data; variance reduction; statistical validation; introduces simulation languages; industry applications. Statistical packages used.
Letter grade only (A-F). (Lecture 3 hrs.)
*489. Data Analysis With SAS (3)
Prerequisite: MATH 381 or consent of instructor.
Topics include: Statistical analysis including extraction, presentation of data in graphical form, creation, modification of datasets, interpretation of output, writing of reports. Provides SAS programming techniques for aforementioned topics as well as prepare for SAS base certification.
(Lecture 3 hrs.)

## 491. Honors Seminar in Problem Solving (1)

Prerequisites: Consent of instructor.
Challenging problems form many fields of mathematics, taken largely from national and worldwide collegiate and secondary school competitions. Students required to participate in at least one national competition.
May be repeated to a maximum of 3 units. (Lecture-discussion 1 hr .)
*495. Topics in Modern Mathematics (3)
Prerequisite: Consent of instructor.
Topics of current interest from mathematics literature.

## 496. Special Problems (1-3)

Prerequisites: Consent of instructor.
Student investigations in mathematics, applied mathematics, mathematics education, or statistics. May include reports and reviews from the current literature, as well as original investigations.
May be repeated to a maximum of 3 units. Letter grade only (A-F).

## 497. Directed Studies (1-3)

Prerequisites: Junior or senior standing and consent of instructor.
Readings in areas of mutual interest to student and instructor which are not a part of any regular course. A written report or project may be required.
May be repeated to a maximum of 3 units.

## 498H. Senior Thesis - Honors (3)

Prerequisites: Admission to Honors in the Major in Mathematics or to the University Honors Program, and consent of instructor.
Planning, preparation, completion, and oral presentation of a written thesis in mathematics, applied mathematics, mathematics education, or statistics.

Not available to graduate students. Letter grade only (A-F).

## GRADUATE LEVEL

540A. Abstract Algebra I (3) F
Prerequisite: MATH 444.
Group theory including symmetric groups; group actions on sets; Sylow theorems and finitely generated abelian groups; ring theory including polynomial rings, division rings, Euclidean domains, principal ideal domains and unique factorization domains.
Letter grade only (A-F). (Lecture 3 hrs.)

## 540B. Abstract Algebra II (3) S

## Prerequisite: MATH 540A.

Modules; Field extensions; Finite fields; Splitting fields, Galois theory Commutative ring theory including chain conditions and primary ideals. Topics of current interest.
Letter grade only (A-F). (Lecture 3 hrs.)
541. Elliptic Curves (3) F

Prerequisites: MATH 341, 444, and consent of instructor; MATH 540A and 461 are recommended but not required.
Fermat's method of descent; finite fields; Weierstrass normal form; integers and rational points on elliptic curves; group structures of rational points; Mordell's Theorem; and computation of examples. May also include congruent numbers, Certicom's public cryptography challenges, Lenstra's method of factorization, and the Birch/ Swinnerton-Dyer Conjecture
Letter grade only (A-F). (Lecture 3 hrs.)

## 550A. Topology I (3) S

Prerequisite: MATH 361B.
Fundamentals of point-set topology: metric spaces and topological spaces; bases and neighborhoods; continuous functions; subspaces, product spaces and quotient spaces; separation properties, countability properties, compactness, connectedness; convergence of sequences, nets and filters.
Letter grade only (A-F). (Lecture 3 hrs.)
550B. Topology II (3) F
Prerequisite: MATH 550A.
Further topics in point-set topology: local compactness, paracompactness, compactifications; metrizability; Baire category theorem; homotopy and the fundamental group. Topics may also include uniform spaces, function spaces, topological groups or topics from algebraic topology.
Letter grade only (A-F). (Lecture 3 hrs.)
560A. Functional Analysis I (3) F
Prerequisites: MATH 247, 361B.
Linear spaces, metric and topological spaces, nomed linear spaces; four principles of functional analysis: Hahn-Banach, Open Mapping, Uniform Boundedness, and Closed Graph theorems; adjoint spaces; normed space convergence, conjugate spaces, and operator spaces; Banach Fixed Point theorem; Hilbert spaces.
Letter grade only (A-F). (Lecture 3 hrs.)
560B. Functional Analysis II (3) S
Prerequisite: MATH 560A or consent of instructor.
Spectral theory of operators on normed spaces; special operators; elementary theory of Banach algebras; selected topics from applied functional analysis.
(Lecture 3 hrs .)

561A. Real Analysis I (3) S
Prerequisite: MATH 361B.
Theory of measure and integration, focusing on the Lebesgue integral on Euclidean space, particular the real line. Modes of convergence. Fatou's Lemma, the monotone convergence theorem and the dominated convergence theorem. Fubini's theorem.
Letter grade only (A-F). (Lecture 3 hrs.)
561B. Real Analysis II (3) F
Prerequisite: MATH 561A or consent of instructor.
Lp spaces of functions. Holder's inequality. Minkowski's inequality. Norm convergence, weak convergence and duality in Lp. Further topics from convergence of Fourier series, measure-theoretic probability, the Radon-Nikodym theorem; other topics depending on time and interest.

Letter grade only (A-F). (Lecture 3 hrs .)
562A. Complex Analysis I (3) F
Prerequisite: MATH 361B. (MATH 461 is recommended.)
Axiomatic development of real and complex numbers; elements of point set theory; differentiation and analytic functions, classical integral theorems; Taylor's series, singularities, Laurent series, calculus of residues.
Letter grade only (A-F). (Lecture 3 hrs .)
562B. Complex Analysis II (3) S
Prerequisite: MATH 562A.
Multiple-valued functions, Riemann surfaces; analytic continuation; maximum modulus theorem; conformal mapping with applications, integral functions; gamma function, zeta function, special functions. Letter grade only (A-F). (Lecture 3 hrs.)
563 Applied Analysis (3) F
Prerequisites: MATH 361B.
Hilbert Spaces, Lp spaces, Distributions, Fourier Transforms, and applications to differential and integral equations from physics and engineering.
(Lecture 3 hrs .)

## 564. Applied Nonlinear Ordinary Differential Equations

 (3) FPrerequisites: MATH 361B; 364A or 370A.
Stability and asymptotic analysis, Perturbation methods, Phase plane analysis, Bifurcation, Chaos, Applications to science and engineering.
(Lecture 3 hrs .)

## 570. Partial Differential Equations (3) S

Prerequisites: MATH 364A, 463, 563.
Cauchy's problem; classification of second order equations; methods of solution of hyperbolic, parabolic, and elliptic equations. Letter grade only (A-F). (Lecture 3 hrs .)

## 574. Stochastic Calculus and Applications (3) S

Prerequisites: MATH 361B, 364A or 370A, 380.
Review of probability theory. Markov processes. Wiener processes.
Stochastic integrals. Stochastic differential equations. Applications to Finance and Engineering.
(Lecture 3 hrs .)

## 575. Calculus of Variations (3) S

Prerequisites: MATH 563 and one of MATH 364A, 370A.
Classical theory. Necessary and sufficient conditions for extrema of multiple integrals. Hamilton-Jacobi theory. Applications to eigenvalue problems. Direct methods. Pontryagin maximum principle. Principle of optimality.
Letter grade only (A-F). (Lecture 3 hrs .)

## 576. Numerical Analysis (3) F

Prerequisites: MATH 323, 361B, 364A.
Advanced numerical methods. Introduction to error analysis, convergence, and stability of numerical algorithms. Topics may include solution of ordinary differential equations, partial differential equations, systems of linear and nonlinear equations, and optimization theory.
Letter grade only (A-F). (Lecture 3 hrs .)

## 577. Numerical Solution of Partial Differential Equations

 (3) SPrerequisite: MATH 423 or MATH 576 or consent of instructor.
Survey of finite difference methods for solving hyperbolic, parabolic, and elliptic PDE'S, analysis of their accuracy, convergence, and stability properties. Includes selected initial-value and boundaryvalue problems, characteristics, domain of dependence, von Neumann's method of stability analysis, matrix method of stability analysis, and solution of large scale sparse linear systems by direct and iterative methods. Finite element method introduced.
(Lecture 3 hrs .)

## 580. Statistical Inference (3) F

Prerequisites: MATH 381 or consent of instructor.
Properties of a random sample, convergence in probability, law of large numbers, sampling form normal distribution, central limit theorem, principles of data reduction, likelihood principle, point estimation, Bayesian estimation, methods of evaluating estimators, hypothesis testing, decision theory, confidence intervals.
Letter grade only (A-F). (Lecture 3 hrs.)

## 581. Experimental Design and Analysis (3) F

Prerequisite: MATH 381 or consent of instructor.
Design of experiments to permit efficient analysis of sources of variation with application to quality assurance. Factorial and fractional factorial designs; block designs; confounding. Fixed and random effect models. Effects of departure from assumptions; transformations. Response surface techniques. Taguchi methods. (Lecture 3 hrs.)

## 582. Time Series (3)

Prerequisites: MATH 381.
Includes moving averages, smoothing, Box-Jenkins (ARIMA) models, testing for nonstationarity, model fitting and checking, prediction and model selection, seasonal adjustment, ARCH, GARCH, cointegration, state-space models. Statistical packages used throughout course.
(Lecture 3 hrs.)

## 583. Survey Sampling (3)

Prerequisites: MATH 381 or consent of instructor.
Theory and practice of sampling from finite populations. Simple random sampling, stratified random sampling, systematic sampling, cluster sampling. Properties of various estimators including ratio, regression, and difference estimators. Error estimation for complex samples.
Letter grade only (A-F). (Lecture 3 hrs.)

## 584. Statistical Quality Control (3) F

Prerequisite: MATH 381 or consent of instructor.
Introduction to methods of statistical quality control. Includes control charts, acceptance sampling, process capability analysis, and aspects of experimental design.
(Lecture 3 hrs.)

## 585. Nonparametric Statistics (3)

Prerequisites: MATH 480 or consent of instructor.
Alternatives to normal-theory statistical methods, analysis of categorical and ordinal data, methods based on ranks, measures of association, goodness of fit tests, order statistics.
Letter grade only (A-F). (Lecture 3 hrs.)
586. Data Mining (3) S

Prerequisites: MATH 480 or consent of instructor.
Basics of data mining algorithms with emphasis on industrial applications. Prediction and classification techniques such as Multivariate Adaptive Regression Splines, decision trees, neural networks, and other methods. Several software packages utilized.
Letter grade only (A-F). (Lecture 3 hrs .)

## 587./487. Statistical Simulation (3)

Prerequisites: MATH 381 or consent of instructor.
(Undergraduates enroll in MATH 487; graduates enroll in MATH 587.)

Simulation modeling techniques; generation of discrete and continuous random numbers from given distributions; Monte Carlo methods; discrete event simulations, statistical analysis of simulated data; variance reduction; statistical validation; introduction to simulation languages; industry applications. Statistical packages used throughout the course.
Letter grade only (A-F). (Lecture 3 hrs .)

## 590./480. Regression Analysis (3)

Prerequisites: MATH 247 and 380, prerequisite or corequisite MATH 381. (Undergraduates enroll in MATH 480; graduates enroll in MATH 590.)
Simple linear regression: estimation and inference, prediction, analysis of residuals, detection of outliers, use of transformations. Multiple linear regression: influence diagnostics, multicollinearity, selection of variables, simultaneous estimation and inference, validation techniques. Statistical software for data analysis used. Letter grade only (A-F). (Lecture 3 hrs .)

## 593./483. Multivariate Statistical Analysis (3)

Prerequisites: MATH 381, prerequisite or corequisite MATH 480. (Undergraduates enroll in MATH 483; graduates enroll in MATH 593.)

Discriminate analysis, principal components, factor analysis, cluster analysis, logistic regression, canonical correlation, multidimensional scaling, and some nonlinear techniques. Statistical software used.
Letter grade only (A-F). (Lecture 3 hrs .)

## 695. Seminar in Mathematics (3) F,S

Prerequisite: Consent of instructor.
Presentation and discussion of advanced work, including original research by faculty and students. Topics announced in the Schedule of Classes.
May be repeated to a maximum of 6 units. Letter grade only (AF).

## 697. Directed Studies (1-3) F,S

Prerequisite: Consent of instructor.
Research on a specific area in mathematics. Topics for study to be approved and directed by faculty advisor in the Mathematics and Statistics Department.
Letter grade only (A-F).

## 698. Thesis (2-4) F,S

Prerequisite: Advancement to candidacy for M.S. in Mathematics and completion of at least one 500 and/or 600 level mathematics course.
Formal report of research or project in mathematics.

## Mathematics Education Courses (MTED)

Satisfying the Entry-Level Math (ELM) requirement (see
"Undergraduate Programs" section of this Catalog) is a prerequisite for all mathematics education courses.

## LOWER DIVISION

## 105. Activity-Based Probability and Statistics for Elementary and Middle School Teachers (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent.
Activity-based exploration of randomization, data representation, measures of central tendency and dispersion. Analysis of experiments requiring hypothesizing, experimental design and data gathering. Basic laws of probability and set theory, combinations, permutations, and simulations.
Not open for credit to Mathematics majors. Letter grade only (A-F). (Lecture 2 hrs., activity 2 hrs .)

## 110. The Real Number System for Elementary and Middle School Teachers (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent.
Introduction to problem solving processes and strategies.
Development and analysis of structure, properties, and operations of real number system. Concept and process development using appropriate models, manipulative, and activities.
Not open for credit to Mathematics majors. (Lecture 2 hrs., activity 2 hrs.)
211. Geometry and Measurement for Elementary Teachers (3)
Prerequisites: "C" or better in MTED 110 and one year of high school geometry.
Problem solving and hands-on modeling of real-world geometry situations focusing on patterning, informal geometry, congruence, similarity, constructions, transformations, tessellations,
measurement in 1, 2, and 3 dimensions (English and Metric units). Computer applications are integrated into the course.
Not open for credit to Mathematics majors. (Lecture 2 hrs., activity 2 hrs.)

## UPPER DIVISION

## 301. Computer Applications in Mathematics for Teachers (3)

Prerequisites: One year of high school geometry and one of MTED 110 or MATH 122.
Designed for pre-service or inservice teachers. Software evaluation; teacher tools (spreadsheets, databases, email, collaborative tools, and applications); mathematics using technology; programming; technology use issues in schools.
Satisfies California Level I teaching credential computer technology standard. Open for credit to pre-service or in-service teaching credential students only. (Lecture 2 hrs., activity 2 hrs.)

## 311. Topics of Enrichment in Mathematics for the Elementary Teacher (3)

Prerequisites: MTED 110 and either MTED 211 or MATH 122 or consent of instructor. Formerly MATH 311.
Enrichment topics in mathematics for elementary teacher, such as theory of arithmetic, numeration systems, elementary logic, mensuration, metric system, topological equivalence, probability and statistics and network theory.
Not open for credit to mathematics majors or to students with credit in MATH 311. (Lecture 3 hrs.)

## 312. Geometry and Measurement for Mathematics Specialists in Elementary and Middle Schools (3)

Prerequisites: MTED 110 and one year of high school geometry.
Exploration, conjecture, justification of geometric relationships, applications relevant to teaching geometry (K-10). Problem solving, informal geometry, proof, non-Euclidean geometry, congruency, similarity, constructions, transformations, tessellations, measurement (English and Metric) in 1, 2 , and 3 dimensions. Computer construction utility used.
Not open for credit to Mathematics majors. Letter grade only (A-F). (Lecture 2 hrs., activity 2 hrs.)
315. History of Mathematics for Mathematics Specialists in Elementary and Middle Schools (3)
Prerequisites: MTED 110, 312.
Mathematics ideas throughout history with orientation toward various civilizations and cross-cultural views. Covers origins and interrelationships of areas of K-9 mathematics curriculum, including arithmetic, algebra, geometry, statistics and probability, cryptography, and other mathematics topics.
Not open for credit for mathematics majors. Letter grade only (AF). (Lecture 2 hrs; activity 2 hrs.)

## 320. Number Theory for Middle School Teachers (3)

 Prerequisites: MTED 105, 110.Concepts and justification involving basic properties of natural numbers, mathematical induction, Euclidean algorithm, and the Fundamental Theorem of Arithmetic. Topics include proofs and problem-solving with divisibility, primes and composites, and prime factorizations; congruences and other examples.
Not open for credit for mathematics majors. Letter grade only (AF). (Lecture 2 hrs; activity 2 hrs.)

## 324. Algebraic Structures for Middle School Teachers

 (3)Prerequisites: MTED 105, 110.
Properties of real and complex numbers, groups, rings, real and complex fields; polynomial equations and inequalities; polynomial, rational, radical, absolute value, exponential, and logarithmic functions; matrices and vectors.
Not open for credit for mathematics majors. Letter grade only (AF). (Lecture 2 hrs; activity 2 hrs.)
325. Functions, Models and Concepts of Calculus for Mathematics Specialists in Elementary and Middle Schools (3)
Prerequisites: MTED 110, 312.
Numeric, symbolic, graphical, verbal representation of functions; sequences and sums. Intuitive development of concepts of limit, continuity, derivative, integral. Applications, including differential equations. Algebraic methods and technology emphasized in context of learning calculus.
Not open for credit for mathematics majors. Letter grade only (AF). (Lecture 2 hrs; activity 2 hrs.)
402. Problem Solving Applications in Mathematics for Elementary and Middle School Teachers (3)
Prerequisites: "C" or better in both MTED 110, and either 211 or 312 or the equivalent and a course in Critical Thinking.
Problem solving processes and strategies; interrelates and applies content from many mathematics areas (real number system, algebra, number theory, geometry, measurement, probability and statistics); develops questioning strategies, fostering understanding of algebra and geometry. Technology integrated throughout.
Not open for credit to Mathematics majors. (Lecture 2 hrs., activity 2 hrs.)

## 403. Connections, Integration, and Reasoning in

 Mathematics for Teachers of Foundational Mathematics (3)Prerequisites: MTED 105, 110, 312, 315, 320, 324, 325, and 402.
Examination, analysis, and integration of mathematics topics appropriate for teachers of Foundational Mathematics. Topics will include problem solving, hypothesis and justification, and mathematics connections and communication.
Not open for credit for mathematics majors. Letter grade only (AF). (Lecture 2 hrs; activity 2 hrs.)

## 411. Topics and Issues in Secondary School

 Mathematics (3)Prerequisites: MATH 310, 341, 355, 380, 410, 444; EDSS 300M or consent of the instructor.
Analysis of topics and issues in secondary school mathematics curriculum. Problem solving, mathematical connections, communication, structures, conjecture, proof, manipulatives, technology, assessment. Observations/interview experiences and portfolio assemblage required. Intended for students preparing to enter Single Subject Credential Program in mathematics. (Lecture 2 hrs., activity 3 hrs.)
495. Special Topics in Mathematics Education (1-3)

Prerequisite: Consent of instructor.
Topics of interest in Mathematics Education.
May be repeated to a maximum of 9 units with different topics in different semesters. Letter grade only (A-F).

## GRADUATE LEVEL

## 511. Mathematics Teaching and Learning (3)

Prerequisite: Consent of instructor.
Theories of mathematics teaching and learning. Key issues in mathematics and mathematics education. Historical development and contemporary views of various theoretical perspectives for teaching and learning mathematics, including the roles of standards and various mathematics and education organizations. Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

## 512. Curriculum and Assessment in Mathematics (3)

Prerequisite: MTED 511 or consent of instructor.
Theories of mathematics curriculum and forms of assessment. Introduces major philosophies, issues, resources and technologies pertaining to curricula and assessment of mathematics. Relevant histories and contemporary practices of design and implementation of curriculum and assessment of mathematics.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)
540. Algebra in the Secondary School Curriculum (3)

Prerequisite: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Issues/topics concerning algebraic learning using curricular standards. Examining texts, curricula, algebraic thinking and teaching research. Common errors and possible remedies, algebra for mathematizing situations. Relationship of K-12 algebra curriculum to modern algebra and its structures. Fundamental theorem of algebra.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

## 550. Geometry and Measurement in the School Curriculum (3)

Prerequisites: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Content, curriculum, standards, and research in learning and teaching geometry, spatial sense and measurement in K-12. Justification and proof, applications and abstraction, tools and technology in geometry teaching and learning. Current issues in teaching and learning of geometry and measurement.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs .)
560. Analysis in the Secondary School Curriculum (3)

Prerequisites: MTED 511 and MATH 361A; prerequisite or corequisite: MTED 512 or consent of instructor.
Fundamental concepts of calculus, functions, mappings, related topics and proofs in real and complex analysis, relating mathematics analysis to secondary curriculum. Issues and techniques in teaching and learning of mathematical analysis. Examination of mathematics education research and mathematics frameworks.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

## 580. Probability and Statistics in the School Curriculum (3)

Prerequisites: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Content, curriculum, and research in learning and teaching probability and statistics in K-12 schools. Includes role of applications, abstraction, tools and technology in probability and statistics teaching and learning.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)
590. Special Topics in Mathematics Education (1-3)

Prerequisites: Consent of instructor.
Advanced study of special topics in the field of mathematics education.
May be repeated for a total of six units with different topics. Letter grade only (A-F). (Seminar 1-3 hrs.)
695. Seminar in Mathematics Education (1-3)

Prerequisites: Consent of instructor.
Presentation of and discussion of advanced work in mathematics education.
May be repeated for a total of six units. Letter grade only (A-F). (Seminar 1-3 hrs.)
697. Directed Studies in Mathematics Education (1-3)

Prerequisites: MTED 511, 512; EDP 520; Advancement to Candidacy; consent of instructor.
Research project in mathematics education.
Letter grade only (A-F).

## 698. Thesis in Mathematics Education (1-4)

Prerequisites: MTED 511, 512; EDP 520; Advancement to Candidacy; consent of instructor.
Research in mathematics education culminating in a formal report.
Letter grade only (A-F).

# MECHANICAL AND AEROSPACE ENGINEERING <br> College of Engineering 

## Department Chair

Hamid Hefazi
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## Website

http://www.csulb.edu/colleges/coe/mae
Faculty

## Professors

Hsun Hu Chen, Hsin-Piao Chen, Mihir K. Das, Simon deSoto (Emeritus), Ramin Esfandiari, Karl-Heinrich Grote, Hamid Hefazi, Min-Ten Jahn, Emanuel Jarasunas (Emeritus), Ernest R. Mijares (Emeritus), Ortwin Ohtmer, Leonardo Pérez y Pérez, Hamid R. Rahai, Thomas Robinson (Emeritus), Reza Toossi, Jalal Torabzadeh, Hung V. Vu, Parviz Yavari, Hsien-Yang Yeh

## Associate Professor

Eric G. Besnard
Assistant Professor
Bei Lu
Undergraduate Advisors
Jalal Torabzadeh (ME)
Hsun Hu Chen (AE)
Parviz Yavari (ET)
General Education Advising
See Academic Advising Center AS-124
Graduate Advisors
Hamid Rahai (ME)
Hsin-Piao Chen (AE)
Administrative Support Coordinators
Leanne Hayes
Students desiring detailed information should contact the department for referral to one of the faculty advisors.

## Accreditation

The Bachelor of Science in Aerospace Engineering and the Bachelor of Science in Mechanical Engineering are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 - telephone (410) 347-7700; website: http://www.abet.org.

## The Culture of Continuous Improvement

The Department of Mechanical and Aerospace Engineering continuously seeks input from its students, alumni, employers, community, and industry leaders in order to improve its programs and ensure that students receive the best possible education and training. It is supported by a professional Advisory and Development Council (ADC). The council is comprised of outstanding engineers
and executives from industry and government in Southern California. The role of the ADC is to form a liaison between the University and industry and to help the administration and faculty remain informed of modern engineering practices.

## Mechanical and Aerospace Engineering at CSULB

The Mechanical and Aerospace Engineering Department at California State University, Long Beach offers a variety of programs to meet societal needs. At the undergraduate level the following programs are offered: Bachelor of Science in Aerospace Engineering (BSAE); Bachelor of Science in Mechanical Engineering (BSME); Bachelor of Science in Engineering (BSE) with options in Materials Engineering or Industrial Management Engineering, and the Bachelor of Science in Manufacturing Engineering Technology.

At the graduate level the following degree programs are offered: Master of Science in Aerospace Engineering (MSAE); Master of Science in Mechanical Engineering (MSME); Master of Science in Engineering (MSE) with an emphasis in Management Engineering; and the Ph.D. in Engineering and Industrial Applied Mathematics (offered jointly with Claremont Graduate University). Additionally, the following post-baccalaureate certificate programs are offered: Certificate in Aerospace Manufacturing; Certificate in Heating, Ventilating, and Air-Conditioning (HVAC); Certificate in Industrial Plastics Processing and Design; and Certificate in Energy Conversion and Power Systems Engineering.

Students have the benefit of joining the student chapters of professional societies such as: American Society of Mechanical Engineers (ASME); American Institute for Aeronautics and Astronautics (AIAA); Society of Automotive Engineers (SAE); Society of Petroleum Engineers (SPE); American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE); Society of Manufacturing Engineers (SME); American Society of Quality (ASQ); and the Institute of Industrial Engineers (IIE); as well as honor societies such as Pi Tau Sigma and Tau Beta Pi, etc., which is housed in the MAE Department. As student members of these professional societies, students can attend local, regional, national and international meetings and conferences, participate in student paper contests, become eligible for society sponsored scholarships, interact with professionals from industry, and many other benefits.

## MECHANICAL ENGINEERING PROGRAM

## Undergraduate Program Goal and Educational Objectives

The goal of the Mechanical Engineering program at the undergraduate level is to graduate well-prepared entry-level professionals with an excellent education in the fundamentals of engineering sciences and design, and to provide them with the ability to apply their knowledge to translate ideas and plans into working engineering systems. This goal is achieved through the following educational objectives:

- Providing students with the opportuhity to enter the profession of Mechanical Engineering, to pursue graduate studies, to commit to lifelong learning, and to continuing self-development.
- Providing students with a solid foundation in the areas of mathematics, basic sciences, computational skills, and a broad range of engineering sciences that are required for a contemporary mechanical engineer entering the profession.
- Training students thoroughly in methods of analysis, including the use of appropriate computer application software and other tools essential to develop engineering problem solving skills.
- Providing students with hands-on experience in planning, conducting, and analyzing results; and submitting formal reports on their experimental investigations.
- Providing opportunities for students to enhance their communication skills by means of formal writing, oral presentations, and world-class electronic media technology.
- Developing students' skills in the design process, including the ability to formulate problems, think logically and clearly, communicate effectively, synthesize information creatively, and function efficiently in a collaborative, teamwork environment.
- Providing the scope for co-curricular and extra-curricular activities which permit learning about the profession through involvement in professional societies, guest lectures, field trips, industrial employment, internships, active participation in national and international design competitions, and similar experiences.
- Instilling in students an understanding of the importance of their professional, ethical, environmental, and social responsibilities, and their role in the contemporary issues of our society.


## AEROSPACE ENGINEERING PROGRAM

## Aerospace Engineering Program Mission Statement

The mission of the Aerospace Engineering (AE) program is to fulfill the needs of students, of industry and government, and of the local, national, and global community in the area of aerospace systems engineering education and research.

The mission is implemented through the following objectives:

1. Provide undergraduate students with a comprehensive education for successful careers in aerospace engineering.
2. Provide graduate students with an education for the advancement of their careers and access to doctoral studies.
3. Provide an environment for students and faculty to engage in creative thinking and research in the areas of computational fluid dynamics, aero- and hydrodynamics, design and optimization, composite materials, manufacturing, and structural analysis and design.
4. Promote aerospace sciences and engineering at the University and the broader community.
5. Establish ties with national and international educational and research institutions in order to promote worldwide exchanges.

## Aerospace Engineering Undergraduate Program Educational Objectives

The goal of the undergraduate program is to produce well-rounded engineers who possess the skills required for a successful career in aerospace engineering. This goal is reached by:

1. Providing students with a comprehensive education in
1.1 General Education, particularly communication in the English language and critical thinking, the physical universe, humanities and arts, social and behavioral sciences and history, and self-integration.
1.2 Mathematics and basic sciences,
1.3 General engineering topics and computer and software fundamentals, and
1.4 Aerospace engineering topics (aerodynamics, aerospace materials and structures, propulsion, space environment and space systems, communications and avionics systems, orbital and flight mechanics, and stability and control).
2. Preparing students for careers in aerospace engineering by emphasizing
2.1 Analysis and problem solving,
2.2 Preliminary design, design for manufacturing and systems engineering,
2.3 Teamwork, professionalism, economic fundamentals, commercial viability of projects and business cases, and communication skills.
3. Providing student projects, internship and research opportunities to expose students to the professional environment, to stimulate their creativity, and to foster lifelong learning.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Mechanical Engineering (code MAE_BS01) (135 units)

The realm of mechanical engineering is so extensive that training must be broad and basic, providing grounding in fundamentals which an engineer requires in order to gain competence in any specialized field. In view of this, the mechanical engineering curriculum includes ample foundation courses in mathematics, physics, chemistry, and design graphics. These are followed by courses in energy conversion, thermodynamics, fluid mechanics, mechanics and strength of materials, metallurgy, design, computer-aided design/ computer-aided manufacturing (CAD/CAM). The opportunity to further explore a particular area of interest is provided by additional elective courses in the senior year.

The laboratories of the department are provided with modern equipment for undergraduate instruction in the following areas: instrumentation and measurements, fuels and lubricants, materials and metallurgy, thermodynamics and heat power, vibration, design, and acoustics, strength of materials, design, CAD/CAM, control systems and manufacturing.

Several industry and professional society sponsored scholarships and internships are available to upper division mechanical engineering students. Further information is available in the department office.

## Requirements

Minimum 135 units including University General Education requirements.

Lower Division: CHEM 111A; CE 205; EE 211, 211L; MATH 122, 123, 224; ENGR 101; MAE 172, 205, 272; PHYS 151, 152.

Upper Division: CE 335, 336, 406; ECON 300; MATH 370A; MAE 300, 305, 322, 330, 336, 337, 361, 371, 373, 375, 376, 409, 431, 459, 471, 472, 476, 490.

## Bachelor of Science in Aerospace Engineering (code MAE_BS02) (132 units)

The curriculum is designed to supplement mathematics, science and basic engineering courses in order to give students the specialization needed in different areas of aerospace engineering. In addition to acquiring technical knowledge, graduates will have completed appropriate courses in communications and in humanistic social studies.

## Requirements

A grade of " $C$ " or better must be achieved in all required courses listed below. Minimum 132 units including University General Education requirements.

Lower Division: CHEM 111A; MATH 122, 123, 224; PHYS 151, 152; CE 205; MAE 101A, 172, 205.

Upper Division: ECON 300; MATH 370A; MAE 300, 305, 330, 333, 334, 350, 365, 371, 373, 374, 381, 390, 434, 440, $452,453,465,478,479,481,483$, and 6 units of electives from the elective list below.

Electives: MAE 408, 422, 435, 451, 454 and 490A.

## Bachelor of Science in Engineering <br> Option in Materials Engineering (code MAE_BS03) (135 units)

Modern engineering applications in all fields require new materials with properties well beyond those obtainable with the alloys available years ago. New materials, such as composites, ceramics, polymers, semiconductors and their manufacturing processes, are needed for such diverse applications as air transports, undersea deep submergence vessels, magnetic and semiconducting devices. Scientific knowledge in this area has expanded recently at a rate comparable to that experienced by the field of electronics. The materials option is offered to meet the demand for materials oriented engineers.

Course work is directed towards the understanding of the properties of materials in terms of their atomic structure, and emphasis is placed on the behavior of materials in engineering applications. The laboratories have equipment for studies in this field and include facilities for the determination of crystal structure, microscopic and X-ray diffraction, and scanning electron microscope examination of solids, thermal and mechanical treatment and the determination of properties at low and high temperatures.

## Requirements

Minimum 135 units including University General Education requirements.

Lower Division: CHE 200; CHEM 111A, 111B; CE 205; EE 211, 211L; MATH 122, 123, 224; ENGR 101; MAE 172, 205, 272; PHYS 151, 152.

Upper Division: CHE 415; CE 406; ECON 300; EE 320;

MATH 370A; MAE 322, 330, 361, 371, 373, 374, 375, 409, 459, 490, plus approved engineering elective courses.

For more information on admission to this program, please contact Dr. Jalal Torabzadeh, Undergraduate Advisor, Mechanical Engineering Program.

## Option in Industrial-Management Engineering (code MAE_BS04) (135 units)

An interdisciplinary degree in which both the College of Business Administration and the College of Engineering provide courses enable students to have a technical engineering background plus a good foundation in business and management practices. The option consists of core engineering courses through the junior year with an addition of business courses in accounting, business law, management, inventory practices and operations research. Elective structure is such that the student may specialize in either engineering, or a combination of both engineering and business.

## Requirements

Lower Division: ACCT 201; CHEM 111A; CE 205; EE 211, 211L; BLAW 220; MATH 122, 123, 224; ENGR 101; MAE 172, 205; PHYS 151, 152.

Upper Division: CE 406; ECON 300; BLAW 320; IS 310; MATH 370A; MGMT 300; MGMT 411 or 412 or 413 ; MAE 305, $310,322,330,371,373,376,410,459,476$, and approved electives to total at least 135 units.

For more information on admission to this program, please contact Dr. Jalal Torabzadeh, Undergraduate Advisor, Mechanical Engineering Program.

## Bachelor of Science in Manufacturing Engineering Technology (code MAE_BS06) (134 units)

Designed to provide a solid technical foundation to its graduates, which will enable them to perform well in a variety of employment situations. The program focuses on applications of current manufacturing and quality assurance technologies to solve real-world problems by offering a broad curriculum, which covers current trends in the industry.

Prepares students for a career position as a Manufacturing Technologist, or Quality Assurance Technologist in a variety of industries, such as Aerospace, Biomedical, Chemical, Computer, Electronics, Power, etc. Students are offered a wide range of training in topics such as materials, manufacturing processes, quality control and different production environments. Moreover, the program emphasizes written and oral communication skills as well as modern methods of industrial administration and supervision. The program is designed to meet ABET criteria for accredited programs in engineering technology.

The program has been developed to accommodate students who may wish to transfer credits earned at other colleges or approved technical or military service schools. It is recommended that prospective students, prior to submitting an application for admission, contact the advisor of the Manufacturing Engineering Technology program to discuss departmental requirements and the admission requirements of the University. The two emphases in the Manufacturing Engineering Technology Program are: (a) Manufacturing Processes, and (b) Quality Assurance.

## Core Requirements

Lower Division: CHEM 111A; MATH 120; ENGR 203, 203L; PHYS 100 A \& B; ET 101, 170, 202, 202L, 204, 205, 205L, 244, 244L, 264, 264L

Upper Division: ECON 300; ET 301, 301L, 302, 302L, 304, 307, 309, 311, 312, 313, 313L, 335, 335L, 390, 390L, 410, 418, 435, 435L, 461, 498

## Emphasis in Manufacturing Processes

The emphasis prepares the student for a position as a manufacturing technologist, in a variety of industries, such as Aerospace, Biomedical, Chemical, Computer, Electronics, Power, etc. Students are offered a wide range of training in topics such as materials, manufacturing processes and different production environments. Moreover, the program emphasizes written and oral communication skills as well as modern methods of industrial administration and supervision. Program is designed to meet ABET criteria for accredited programs in engineering technology.

## Requirements

Upper Division: ET 363, 365, 365L; Plus 4 units of electives from ET 409C, 387, 387L.

## Emphasis in Quality Assurance

The primary objective is to prepare graduates to pursue careers related to product manufacturing and quality assurance. Emphasis is placed on specific job skills required of entry level professionals in the manufacturing industries including oral and written communication, and management principles. The program is applications-oriented, and is available to students interested in a career as Quality Assurance technologists. Designed to meet ABET criteria for accredited programs in engineering technology.

## Requirements

Upper Division: ET 320, 419, 420, Plus 2 units of electives from ET 409C, BLAW 220

## Certificate in Aerospace Manufacturing (code MAE_CT01)

Director: Hamid Hefazi
This Certificate Program is designed to give students and working engineers an educational opportunity to focus on the complex and dynamic issues related to aerospace manufacturing. The program consists of 19 semester units, with seven required core courses.

## Requirements

1. Consent of the Program Director.
2. Preparation of a Program Planner.
3. Satisfactory completion of the required courses as listed below.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. Completion of a Bachelor of Science degree in an approved major. The Certificate may be awarded concurrently with or subsequent to a baccalaureate degree.

## Required Courses

The Certificate Program requires a minimum of 19 semester units (seven core courses): MAE 408, 455, 456, 457, 458; ENGR 511, 574. Students should consult with the program director to assess any needed prerequisites.

## Certificate in Heating, Ventilating, and Air-Conditioning Engineering (code MAE_CTO3)

Director: Hamid Rahai
Faculty: Hamid Rahai, Reza Toossi and Jalal Torabzadeh
The 20-unit HVAC Certificate Program is designed to prepare engineering and science students for designing various HVAC systems and to familiarize them with HVAC equipment and their selection process.

With a proper choice of classes, you may also earn this Certificate in conjunction with your bachelor's degree. Contact the Department of Mechanical and Aerospace Engineering for more information.

## Requirements

1. Consultation with the Program Director and preparation of a Program Planner;
2. Satisfactory completion of the required courses, as listed below;
3. Approval of the special project and its satisfactory completion (MAE 491);
4. Completion of a Bachelor of Science degree in an approved major. The Certificate may be awarded concurrently with or subsequent to the baccalaureate degree.

## Required Courses

The HVAC Certificate Program requires a minimum of 20 semester units, as indicated below: MAE 330, 431, 438/538, 490E, 491, MAE 333 or CE 335; MAE 440 or CE 336

## Certificate in Industrial Plastics Processing and Design (code MAE_CT02)

Director: Min-Ten Jahn

Professors: Mihir K. Das, Lloyd Hile, Min-Ten Jahn, and Hsien-Yang Yeh
The certificate program in Industrial Plastics Processing and Design is an interdisciplinary program sponsored by the Mechanical and Aerospace Engineering and Chemical Engineering Departments. Polymeric materials rank as second in tonnage use currently of all materials, and indications are that in he near future they may surpass metals in total usage. There is a definite need for personnel familiar with the processing and special design considerations necessary to properly make use of the special properties of this broad class of materials. The program permits a student to study in detail the industrial production processes, material testing procedures, economics of the polymerics industry and degradation of polymerics. All students in the program complete an individual project, consisting of the design of an item, choice of proper polymeric material for the particular application, choice of the processing operation and construction of the necessary molding tools and testing of the completed device. Contact the Department of Mechanical and Aerospace Engineering.

## Requirements

1. A bachelor's degree in engineering. The certificate may be awarded concurrently with the degree.
2. Satisfactory completion of 22 units minimum from the courses listed below: Polymeric Processing: CHE 200, 425; MAE 471 and either 472 or 476; and a minimum of 3 units in either CHE 490 or MAE 491. Properties of Polymers: MAE 373,374 , and 424/524.
3. Approval of the certificate committee for admission to the certificate program. An advisor will be appointed to you at that time.
4. The advisor's approval of your completion of the special project.

## Certificate in Energy Conversion and Power Systems Engineering (code MAE_CT04)

Director: Jalal Torabzadeh

Faculty: R. Das, S. deSoto, H. Nour, H. Rahai, R. Toossi, and J. Torabzadeh

The 27-unit certificate program in "Energy Conversion and Power Systems Engineering" is an undergraduate program designed to prepare Electrical and Mechanical Engineering students to become proficient in the analysis and design of power generating systems, such as direct conversion, coal burning, hydraulic, nuclear, solar, wind, and various other types of power plants.

## Requirements

1. Consultation with program advisors in Electrical or Mechanical and Aerospace Engineering Departments and preparation of a program planner;
2. Completion of the following core courses: CE 335, EE 350, EE 452, MAE 330, 336, 431;
3. Completion of 9 units from the following list of elective courses: EE 453, 455, 458, 460, 550, 551, 552, 553; MAE 490, 538;
4. Completion of a Bachelor of Science degree in an approved major. This certificate may be awarded concurrently with or subsequently to baccalaureate degree.

## GRADUATE PROGRAMS

Admission to MSAE or MSME the graduate programs requires a minimum GPA of 2.7 in the last 60 units attempted.

## Master of Science in Mechanical Engineering (code MAE_MS02)

The Master of Science in Mechanical Engineering is offered by the Department of Mechanical and Aerospace Engineering, College of Engineering.

Built on a broad and basic undergraduate instruction, the graduate level courses and the graduate degree, the Master of Science in Mechanical Engineering, develop competence in the fields of design and manufacturing, dynamics and controls, materials and composites, mechanics and Finite Element Methods, and thermal systems. Modern laboratories in CAD, fluid power and mechanics, heat power, control systems, manufacturing, plastics, design, thermodynamics, heat flow, metallurgy, and mechanical properties of materials are maintained for undergraduate and graduate instruction, and graduate research. Design rooms, laboratories within the other engineering departments, computer facilities, and machine shops supplement the mechanical engineering facilities.

Additional details may be found in the Schedule of Classes. For further information and complete degree requirements contact Mechanical and Aerospace Engineering Department.

## Admission Procedures

To be considered for admission, the graduate applicant must have earned a bachelor's degree from an accredited institution, have been in good standing at the last institution attended, and have a grade point average (GPA) of at least 2.7 for the last 60 semester units ( 90 quarter units) attempted. There is no separate department application, but applicants must submit a second set of transcripts to the department.

## Prerequisites

1. A bachelor's degree in mechanical engineering, engineering, or other appropriate discipline from an accredited college or university, with a minimum grade point average (GPA) or 2.7 in the last 60 semester units attempted.
2. Students must consult with the program graduate advisor prior to enrolling in any course for their program.
3. The Graduation Writing Assessment Requirement (GWAR) during the first semester in residence. Failure to attempt to fulfill the GWAR during the first semester will prevent registration in engineering courses in subsequent semesters.
Note: Before being admitted, a qualified student without a mechanical engineering degree must provide a written statement to the MSME graduate advisor that he/she understands that all deficiencies must be removed before attempting graduate-level courses.

## Requirements

## PLAN I

Completion of a minimum of 30 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Studies Committee, including:

1. Eighteen units of 500 -and/or 600 -level courses in mechanical and aerospace engineering.
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas.
3. Completion of six units of MAE 698-Thesis, and submission of a written thesis.

## PLAN II

Completion of a minimum of 36 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Studies Committee, including:

1. Twenty-four units of 500 - and/or 600 -level courses in mechanical and aerospace engineering.
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas.
3. Completion of six units of MAE 697 (Directed Research).

## Advancement to Candidacy

Students applying for advancement to candidacy must:

1. have completed all undergraduate deficiencies with grades of "C" or better;
2. have attained an overall grade point average of (GPA) or 3.0;
3. have completed at least 12 units applicable to the degree with a GPA of at least 3.0;
4. have fulfilled the Graduation Writing Assessment Requirement (GWAR). This requirement can also be met by presenting evidence that the student met the requirement
while an undergraduate at CSULB or at certain CSU campuses;
5. and have their program of studies approved by the ME program's graduate advisor.

## Master of Science in Aerospace Engineering (code MAE_MS01)

The Master of Science in Aerospace Engineering program has been created to educate graduate students in subjects relevant to the requirements of industry and in deductive reasoning which will benefit them and the community. This program is unique in its emphasis on practical applications and intimate interaction with the aerospace industry. It involves the most modern computational and experimental methods and provides the essential information permitting the students to acquire knowledge and skills of immediate practical importance. This knowledge is communicated in the courses listed below and used in the conduct of a thesis project to be carried out with participation from industry. Area Specializations include: spacecraft or aircraft systems engineering, computational fluid dynamics, and aerospace structures.

Both graduate and undergraduate programs benefit from the advice of an advisory committee made up of senior staff of aerospace companies, government agencies and universities.

Further information may be obtained from the Department of Mechanical and Aerospace Engineering.

## Prerequisites

1. A bachelor's degree in an accredited curriculum in Aerospace or Mechanical engineering with a minimum grade point average of 2.70 in the last 60 (semester) units attempted. Applicants with lower GPA may be admitted subject to successful completion of appropriate deficiencies.
2. A bachelor's degree in engineering, mathematics, science or other appropriate discipline with the requirement that essential undergraduate prerequisites in engineering be satisfied.
3. Graduate students must consult with the graduate advisor for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.

## Advancement to Candidacy

Prerequisites for advancement to candidacy are:

1. Classified status.
2. An approved program of studies for the Master of Science in Aerospace Engineering.
3. Fulfillment of the CSULB Graduation Writing Assessment Requirement (GWAR).
4. Be enrolled in regular session.
5. Application for Advancement to Candidacy must be done prior to or concurrent with enrollment in MAE 698, Thesis.

## Requirements

## PLAN I

Completion of a minimum of 30 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Study Committee, including:

1. Eighteen units of 500 - and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas;
3. Completion of six units of MAE 698, and submission of a written thesis.
PLAN II
Completion of a minimum of 36 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Study Committee, including:
4. Twenty-four units of 500 - and/or 600 -level courses in mechanical and aerospace engineering;
5. Six units of electives selected from approved upper-division or graduate courses from appropriate areas;
6. Completion of six units of MAE 697.

## Master of Science in Engineering (code COE_MS01)

Admission to MSE graduate program requires a minimum GPA of 2.5 in the last 60 units attempted.

For requirements, see the description in the College of Engineering part of this catalog.

The Mechanical and Aerospace Engineering Department administers two emphases under the Master of Science in Engineering. The other prerequisites and requirements are the same as for the MSAE and MSME programs.

## Management Engineering Emphasis

A special management perspective is required for the successful generation of technical products and services, and thus the Master of Science in Engineering: Program in Management Engineering is offered by the College of Engineering at California State University, Long Beach.

In order to plan, design, direct and control technical projects, technical managers must be capable of inspiring and developing professional personnel. They must be able to integrate planning, manufacturing and budgetary concerns of the project and be able to easily communicate with general management.

The Emphasis in Management Engineering primarily admits students with a traditional engineering background. It emphasizes the management of engineering-based endeavors and does not require undergraduate business courses as prerequisites for graduate work.

Well-suited for working students, graduate courses in management engineering are offered in the late afternoon and evening. An individualized program is developed according to each student's undergraduate degree, area of interest, or some well-defined industrial application; interdisciplinary approaches are encouraged.

The graduate program supports innovative thesis topics that enable the degree candidate to be knowledgeable about new applications and/or areas in management engineering.

The graduate Emphasis in Management Engineering at California State University, Long Beach seeks to:

- Provide industry and government with engineers who have essential management knowledge and skills.
- Provide engineers with career advancement opportunities in project management and the management of research, manufacturing and other technical enterprises.
- Educate engineers as managers who can effectively plan and implement technological projects.


## Ph.D. in Engineering and Industrial Applied Mathematics (code COE_PH01)

For requirements, see the description in the College of Engineering section of this catalog.

## Courses (MAE)

## LOWER DIVISION

## 101A. Introduction to Aerospace Engineering (1)

Role of various types of engineering specialties in the development of an actual aerospace vehicle product. Current social, ethical and environmental issues in Aerospace Engineering solutions. Lifelong learning skills using resources from professional societies and Internet are also emphasized.
(Lecture-problem 1 hour) Letter grade only (A-F).
172. Engineering Design Graphics (3)

Graphics concepts and visualization. Graphic expressions using CAD software, emphasis on industrial practice involving part and assembly drawings for actual products, standards, tolerances, surface finishes, and other attributes on drawings, production drawings, projects involving complete design of systems and subsystems.
(Lecture-problems 2 hrs., design laboratory 3 hrs) (CAN ENGR 2) Letter grade only (A-F).
205. Computer Methods in Mechanical and Aerospace Engineering (2)
Prerequisites: MATH 122 and PHYS 151.
Application of computer programming to engineering problem solving. Structured approach to problems. Input-output concepts for both numerical and graphical results.
(Lecture-problems 1 hour, laboratory 3 hours) Letter grade only (A-F).

## 272. Introduction to Manufacturing Processes (2)

Prerequisite: MAE 172.
Basic manufacturing processes, properties of materials; metals production; foundry, casting and heat treatment; welding, powder metallurgy (sintering), plastics, metrology; working of metals, press work; machine tool elements, numerical control; metal cutting and turning; drilling, boring, milling; shaping planning, sawing broaching; grinding, sanding; gears and gear-cutting, threads and threadcutting.
(Lecture-problems 1 hour, laboratory 3 hours) Letter grade only (A-F).

## UPPER DIVISION

## 300. Engineering Instrumentation and Measurement (2) Prerequisites: MATH 224, PHYS 151, 152.

Statistical analysis of experimental data, uncertainty analysis, various statistical distributions and test of goodness of fit, correlation coefficient and multivariable regression. Engineering instrumentation include types of passive and active transducers, electronics for instrumentation, computer-based data acquisition systems, and experiments on pressure, temperature, and force measurements.
(Lecture-problems 1 hour, Laboratory 3 hours) Letter grade only (A-F).

## 305. Numerical Methods in Mechanical and Aerospace Engineering (3)

Prerequisites: MAE 205 and MATH 370A.
Numerical methods applied to problems. Roots of linear and nonlinear algebraic equations. Solutions of simultaneous linear algebraic equations. Parametric notation of analytical curves and surfaces. Numerical interpolation and splines, integration and differentiation, solution of differential equations, initial-value and
boundary-value problems. Individual and/or group projects. (Lecture-problems 3 hours) Letter grade only (A-F).
310. Safety and Reliability in Systems Design I (3) Prerequisites: MAE 205; MATH 370A, or consent of instructor. Introducation probabilistic design analysis; safety and reliability, tools to assess adequacy of designs; identification of critical elements and practical design guidance; compliance with the requirements. Coherent use of concepts, tools, and programs to produce reliable, safe system designs. Group projects involve design of a reliable and safe "real-life" system.
(Lecture-problems 3 hours) Not open for credit to students with credit in ME 390. Letter grade only (A-F).

## 322. Engineering Materials and Materials Processes (3)

 Prerequisites: CHEM 111A, MATH 123, MAE 172.Structure and properties of engineering materials. Phase and transformation diagrams. Heat treatments and mechanical processing. Manufacturing methods of metals. alloys, polymers, composites, ceramics, and semiconductors.
(Lecture-problems 3 hours) Letter grade only (A-F).
330. Engineering Thermodynamics I (3)

Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A or consent of instructor.
Laws of thermodynamics. Properties of liquids, gases and vapors. Sources of energy and conversion to work. Introduction to heat transfer and psychrometry.
(Lecture-problems 3 hours) Letter grade only (A-F).
333. Engineering Fluid Dynamics (3)

Prerequisites: PHYS 151, MATH 370A.
Fundamentals of fluid mechanics, formulation of the conservation of mass, momentum and energy for one-dimensional, finite and differential control volumes. Non-dimensional parameters. Pipe flow. External flow.
(Lecture-problems 3 hours) Letter grade only (A-F).
334. Aerodynamics I (3)

Prerequisite: MAE 333.
Bernoulli's equation, incompressible, inviscia flow, flow around circular cylinder, two-dimensional, incompressible boundary layers, incompressible flow around thin airfoils. Panel methods.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 336. Power Plant Design (3)

Prerequisite: MAE 330.
Design of power production systems, including steam power plants, gas turbines and auxiliary power units. Survey of alternate power sources including wind, solar, geothermal, ocean thermal and biomass. Group and/or individual design projects.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
337. Thermal Engineering Laboratory (2)

Prerequisite: MAE 336.
Thermodynamics, heat transfer and fluid flow property measurements, measurement of heating value of fuels, energy and performance analysis of thermal systems, including internal combustion engines, power and heat generating systems, refrigeration and air-conditioning systems, and heat exchangers. (Lecture-problems 1 hour, Laboratory 3 hours) Letter grade only (A-F).

## 350. Flight Mechanics (3)

Prerequisite: MAE 371.
Aircraft forces. Turbojets: level and other flights in the vertical plane, turning flight in the horizontal place. Piston props: level and other flights in the vertical plane, turning flight in the horizontal plane. Performance analysis and comparisons of various aircraft.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 361. Materials and Properties Laboratory (1)

Prerequisites: ENGL 100 or equivalent, MAE 300, 322, 373.
Study of the effects of thermal processing and mechanical processing on the properties and microstructures of metals, alloys, and other materials. Determination of material properties using tensile test, torsion test, and beam test. Study of the statistical nature and reliability of test results.
(Laboratory 3 hours) Letter grade only (A-F).

## 365. Aerospace Structures I (3)

Prerequisite: MAE 373.
Mechanical behavior of aerospace materials. Torsion of thin walled section beams. Bending and torsion of advanced beams. Analysis of stiffened box beams. Load transfer in stiffened panel structures. Failure criteria of aerospace materials.
(Lecture-problems 3 hours) Letter grade only (A-F).
*371. Analytical Mechanics II (Dynamics) (3)
Prerequisites: CE 205, MAE 205 or CE 206.
Newton's Laws and the principles of work and energy and impulse and momentum applied to the study of particle and rigid body motion. Engineering application with emphasis on plane motion problems. Individual and/or group projects involving in-depth numerical analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 373. Mechanics of Deformable Bodies (3)

Prerequisite: CE 205.
Application of the principles of mechanics to the design of structural and machine members and connections; stress analysis of beams and columns. Properties and strength of engineering materials. Design projects.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 374. Mechanical Properties of Materials Laboratory (1)

Prerequisites: MAE 373, ENGL 100 or equivalent.
Physical and mechanical properties of engineering materials and their relationship to structural elements; accuracy of measurements; statistical analysis of experimental data; professional laboratory reports.
(Laboratory 3 hours) Letter grade only (A-F).

## 375. Kinematics and Dynamics of Mechanisms (3)

Prerequisites: MAE 272, 322, 371.
Fundamentals of linkages, cams, gears and gear trains. Velocity and acceleration analysis of machines leading to dynamic loading of machine parts; dynamic analysis and balancing of rotating machines; internal combustion engine balancing. Individual design projects.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 376. Modeling and Analysis of Dynamic Systems (3)

Prerequisite: MAE 371; MATH 370A.
Modeling and analysis of dynamic systems including mechanical, electrical, electro-mechanical, and hydraulic systems. Use of complex algebra and Laplace transforms. Mathematical modeling of dynamic systems in state-space. Linear systems analysis in time and frequency domains. Introduction to feedback control systems.
(Lecture-problems 3 hours) Letter grade only (A-F).
381. Fundamentals of Spacecraft Dynamics (3)

Prerequisites: PHYS 152 and MAE 371.
Space environments and their impact on spacecraft design. Space mission engineering. Spacecraft propulsion. Attitude dynamics and kinematics. Controls. Spacecraft attitude determination and control.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 390. Aerospace Engineering Seminar (1)

Prerequisite: Upper division standing.
Students are introduced to effective communication techniques and make oral presentations. Guest speakers from industry cover topics such as an engineer's professional practice, social responsibilities, ethical and legal issues, as well as latest developments in Aerospace Engineering. Students write reports regarding these presentations.
(Seminar 1 hour) Letter grade only (A-F).

## 408./508. Systems Engineering and Integration (3)

Prerequisite: Senior standing or consent of instructor.
Introduction to tools and methods employed by systems engineers in the aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in the context of integrated product teams and the product life cycle. Trade studies and risk management. Projects are assigned and written reports and oral presentations are required.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## *409. Modern Computational Aspects in Mechanical Engineering (3)

Prerequisites: Senior standing in engineering and consent of instructor.
Computational aspects of Mechanical Engineering. Subjects include finite element analysis of structures, fluids, or heat transfer; boundary element analysis.
May be repeated to a maximum of 6 units with consent of department. (Lecture-problems 3 hours) Letter grade only (A-F).

## A. Finite Element Methods I

Finite element methods for beam and truss elements. Systems of ordinary differential equations and their solution in a finite element formulation. Static and dynamic analysis of complex structures idealized by truss-beam and plane stress elements. Rigid elements in an elastic environment. Automatic mesh generation for 1D, 2D, 3D structures via solid modeling using IDEAS

## B. Introduction to Computational Fluid Dynamics and Heat Transfer

Classification of partial differential equations and boundary conditions, finite difference and finite volume formulations, grid generation, stability analysis, numerical methods for inviscid flows, viscous laminar flows, compressible flows, conduction and convection heat transfer.

## 410. Safety and Reliability in Systems Design II

Prerequisite: MAE 310 or consent of instructor.
Application of probabilistic design analysis and theory to real case studies, using safety and reliability tools and analysis to set design criteria, assess system design, determine failure modes and critical elements, provide practical design experience and demonstrate compliance with the requirements. Group and/or individual projects involving complete design of reliable and safe systems.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
422./522. Composite Materials (3)

Prerequisite: MAE 373.
Stress-strain relations for anisotropic materials. Classical lamination theory. Strength and failure theories for laminae and laminates. Micromechanics. Applications of composite structures. Additional projects will be required for MAE 522.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 424./524. Engineering Principles and Properties of Plastics (3)

Prerequisite: MAE 373.
Nature of polymers, physical and mechanical properties of plastics. Polymerization reactions and production. Properties of co-polymers, polymer solutions. Visco-elastic properties of polymerics.
(Lecture-problems 3 hours) Letter grade only (A-F).

## *425. Chemical and Electrochemical Manufacturing Processes (3)

Prerequisites: MAE 322, 330; or CHEM 371A or consent of instructor.
Theory of electrochemical processing. Electroplating and electroless plating solutions, processes and equipment. Anodizing. Carburizing, nitriding atmospheres and equipment. Diffusion in solids, effect of surface treatments on mechanical properties.
Same course as CHE 435.
(Lecture-problems 3 hours) Letter grade only (A-F).
430./530. Measurement Techniques in Fluid Mechanics and Heat Transfer (3)
Prerequisites: MAE 330, CE 335.
Experimental uncertainty, electrical transducers and pressure measurements, thermocouples, resistance bridges, amplifiers and filters, optical measurement devices, digital image processing, holography and laser doppler velocimeter.
(Lecture-problems 3 hours) Letter grade only (A-F).
*431. Heat Transfer Systems Design (3)
Prerequisites: MAE 305, 330; CE 335.
Analysis of heat transfer by conduction, convection and radiation. Investigation of steady state and transient heat transfer systems. Computer methods. Individual or group design projects involving real-life problems in heat transfer such as electronic packaging, heat exchangers, heat engines, refrigerators, and thermal systems analysis.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*434. Aerodynamics II (3)
Prerequisite: MAE 334.
Incompressible flow about wings of finite span. Vortex lattice method. Compressible flows, Subsonic and supersonic flows around airfoils and wings. Introduction to computational fluid dynamics (CFD). Aerodynamic design considerations. Projects are assigned and written reports and oral presentations are required.
(Lecture-problems 3 hours) Letter grade only (A-F).
435./535. Computational Fluid Dynamics I (3)

Prerequisites: MATH 370A, MAE 333.
Numerical methods for elliptic, parabolic, and hyperbolic equations, finite difference and finite volume methods, analysis of consistency, stability, and convergence, panel method, modeling and computation of boundary layer flows, computational methods for solving full potential equation, grid generation techniques, application to inviscid and viscous subsonic, transonic, and supersonic flows.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 438./538. Heating, Ventilating, Air Conditioning, and Refrigeration (3)

Prerequisites: MAE 330, CE 335.
Basic HVAC system calculations. Thermodynamics and psychometrics, design conditions and load estimating, residential and non-residential heating and cooling load calculations, energy estimating methods, duct and pipe siding, and life cycle costs.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 440. Aerodynamics Laboratory (1)

Prerequisite: MAE 334 or consent of instructor.
Experimental techniques in aerodynamics, wind tunnel measurements, use of Pitot tube, hot wire and Laser Doppler Velocimetry systems, flow visualization techniques, calibration of transducers. Computer controlled data acquisition and analysis. Projects are assigned and written reports and oral presentations are required.
(Laboratory 3 hours) Letter grade only (A-F).

## 451./551. Aircraft Preliminary Design and Performance (3)

Prerequisite: Consent of instructor.
Complete aircraft preliminary design, including mission definition, specifications, and regulations. Preliminary takeoff weight and weight empty for a mission. Aircraft geometric characteristics are developed. Detailed aerodynamic data are estimated and used to calculate aircraft performance. The design project is conducted in teams for MAE 451 and individually for MAE 551.
(Lecture-Design Project 3 hours) Letter grade only (A-F).
*452. Propulsion (3)
Prerequisites: MAE 330, 434.
Simple gas turbine cycle. Heat exchange and reheat gas turbine cycles. Gas turbine components. Ideal and actual thrust development in gas turbines. Principles of rocket engines. Solid, liquid and hybrid fuel rockets. Thrust and control in rockets. Projects are assigned and written reports and oral presentations are required.
(Lecture-problems 3 hours) Letter grade only (A-F).
453./553. Stability and Control of Aerospace Vehicles (3)

Prerequisite: MAE 350 or equivalent.
Physical dependence of airplane stability and control characteristics on airplane configuration and flight condition. Equations for the static longitudinal, lateral and directional stability of airplanes. Neutral points, control effectiveness, trim in maneuvering flight. Configuration determinants. Transient modes. Additional Projects required for MAE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).
454./554. Avionics Systems (3)

Prerequisite: MAE 453.
Avionics systems requirements definition and design. Systems used for guidance and navigation. Components of avionics systems (software, integrated circuits, devices, etc.). Integration of optics and electronics. Testing and certification.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 455. Aerospace Manufacturing Laboratory (1)

Prerequisite: Senior standing.
A design project is given and students are required to complete the design taking into account the manufacturing equipment, control and systems available.
(Laboratory 3 hours) Letter grade only (A-F).

## 456. Production Methods for Aerospace Manufacturing (3)

Prerequisite: Consent of instructor.
Survey of production processes, sequence of operations, equipment and facilities, methods, tools, plans and requirement of various aerospace products. Observation of an actual aerospace manufacturing activity.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 457. Lean Manufacturing (3)

Prerequisite: Senior standing.
Fundamentals of Lean Enterprise. Study of ties to customers and relationship both internal and external to the company. Study of the mechanism of continuous process improvement. Case studies to accomplish value stream analysis and develop a Lean Enterprise improvement plan for student's own respective operations.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 458. World Class Manufacturing Engineering Concepts (3)

Prerequisites: Senior standing in engineering and consent of instructor.
Modern manufacturing management concepts deployed in industry today. Processes for successful deployment of Self-Directed Work Teams, Ergonomics, Process-Based Management (PBM), Quality Management System, ISO 9001:2000, and Lean Manufacturing.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## *459. Professional Practice Seminar (1)

Prerequisite: Senior standing or consent of instructor.
Covers professional, social and moral responsibilities of engineers. Examination of ethical and legal issues, including intellectual property rights and regulatory codes and practices. Participation in professional societies and attend professional seminars encouraged. Licensure is emphasized. Written reports and oral technical presentations are required.
(Lecture-Problems 1 hour) Letter grade only (A-F).
*465. Aerospace Structures II (3)
Prerequisite: MAE 365.
Fracture mechanics. Fatigue failure. Structural stability. Elementary aeroelasticity. Energy principles. Finite element methods of aerospace structural analysis. Application of finite element computer programs. Team projects are assigned and written reports and oral presentations are required.
(Lecture-problems 3 hours) Letter grade only (A-F).
*471. Analysis and Design of Machine Components (3) Prerequisites: MAE 374, 375.
Application of the principles of mechanics and physical properties of materials to the proportioning of machine elements, including consideration of function, safety, production and economic factors. Group and/or individual design projects of mechanical systems and/or subsystems.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
*472. Design of Mechanical Engineering Systems (3)
Prerequisites: MAE 330, 373, 375; CE 335. Corequisite: CE 406.
Capstone course in design of Mechanical Engineering Systems. Design experience includes conceptual design, literature review and analysis. Final design includes: drawings, manufacturing and assembly of prototype. Emphasis placed on identifying realistic constraints simulating industrial situations which affect design choices. Wherever possible, teamwork and interaction is encouraged.
(Lecture-Problems 2 hours, Design Laboratory 3 hours) Letter grade only (A-F).

## 474./574. Computer-Aided Manufacturing (3)

Prerequisites: MAE 322, 490A.
Fundamental concepts in automation. High volume discrete parts production systems. Numerical control manufacturing systems.
Computer process monitoring. Direct digital control. Group techniques. Flexible manufacturing systems.
(Lecture-problems 3 hours) Letter grade only (A-F).
*476. Mechanical Control Systems I (3)
Prerequisite: MAE 376.
Feedback control systems in mechanical engineering. Modeling, analysis, and design. System performance and design criteria: stability, transient response, frequency response and compensation, root locus. Introduction to nonlinear control systems, state space analysis and design.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

## 478. Aerospace System Design I (3)

Prerequisites or corequisites: MAE 434, 465, or consent of instructor; fulfillment of the Graduation Writing Assessment Requirement (GWAR).
Capstone design experience integrates aspects of aerospace systems design. Each team of students is assigned a design project, to be completed in the two-semester course sequence. In first semester course, the teams define the requirements and work through the complete design by the end of the second semester course (MAE 479). Design for manufacturing is emphasized.
(Lecture-Design Project 2 hours, Laboratory 3 hours) Letter grade only (A-F).

## 479. Aerospace Systems Design II (2)

Prerequisite: MAE 478.
Continuation of Aerospace Systems Design I (MAE 478). The projects assigned in teams in MAE 478 are completed. Manufacturing is included when appropriate. Regular design reviews (oral presentations and written reports) are essential components in grading.
(Lecture-Design Project 1 hour, Laboratory 3 hours) Letter grade only (A-F).
*481. Space Systems Engineering (3)
Prerequisite: MAE 381.
Systems engineering approach to spacecraft design. Spacecraft systems engineering and spacecraft and power subsystem. Radiative and conductive heat transfer. Thermal control subsystem. Telecommunications. Command and data handling. Team projects including spacecraft subsystem design are assigned. Written reports and oral presentations are required.
(Lecture-Problems 3 hours) Letter grade only (A-F).
*483. Space Flight and Orbital Mechanics (3)
Prerequisite: MAE 381.
Particle dynamics. Circular orbits: stability, Lagrange points, tidal forces, gravitational resonance. Celestial mechanics. Bound and unbound orbits. Predicting orbital positions. Orbital transfers and the orbital rendezvous problem. Principles of rocketry. Projects are assigned and written reports and oral presentations are required.
(Lecture-problems 3 hours) Letter grade only (A-F).
*490. Special Topics (3)
Prerequisites: Senior standing in engineering and consent of instructor. Selected topics from recent advances in mechanical and aerospace engineering. Content may vary from semester to semester.
May be repeated to a maximum of 6 units with different topics. (Lectureproblems 3 hours) Letter grade only (A-F).

## A. CAD/CAM

Funamentals of computer-aided design/computer-aided manufacturing (CAD/CAM). Creating, reading, and understanding databases for solid models. Assemblies and sub-assemblies. Design and analysis of mechanisms with linkages, gears, springs, dampers. Finite Element Modeling of parts, assemblies, and mechanisms. CAM, 3-axis milling, APT. Design optimization.
Not open for credit to students with credit in ME 405A. Letter grade only (A-F).

## B. Robotics Principles

Major components of a robot and robotic applications. Translational, rotational motion and motion conversions. Modeling of mechanical systems and kinematic chains. Physical control elements, forces encountered, and sensors. Software and hardware consideratons, including robot programming. Robot design examples.
Not open for credit to students with credit in ME 405B. Letter grade only (A-F).

## C. Environmental Engineering and Atmospheric Science

History, technology, control programs, and regulatory developments relating to combustion generated air pollution. Topics include: thermodynamics and kinetics of combustion, flame structures, particulate, unburned hydrocarbons, oxides of nitrogen and carbon, control technologies, atmospheric processes, ozone layers, and air pollutant dispersion models.
Not open for credit to students with credit in ME 405C. Letter grade only (A-F).

## D. Hybrid Electrical Vehicles System Design

History, technology, and future of hybrid vehicles. Topics discussed include: advanced transportation and electric/hybrid vehicles. Group projects involve testing, manufacturing, and modeling of various components for hybrid vehicles. Effects of aerodynamic forces, ergonomics and economics on overall design of the vehicles are investigated.
Not open for credit to students with credit in ME 405D. Letter grade only (A-F).

## E. HVAC Systems Design and Equipment <br> Prerequisites: MAE 330, CE 335.

Design of air conditioning systems, the design process, occupant comfort, load calculations, components and control, all air systems, air and water systems, and all water systems.
Not open for credit to students with credit in ME 405E. Letter grade only (A-F).

## F. Petroleum Engineering

Prerequisites: Senior standing in engineering or science.
Overview of petroleum engineering operations, properties of petroleum reservoir rocks, single-phase and multiphase fluid-flow through porous media. Properties of reservoir fluids. Field trips.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 491. Special Problems (1-3)

Prerequisite: Senior standing.
Assigned topics in technical literature or laboratory projects and reports on same.
Letter grade only (A-F).

## 495./595. Rapid Product Development (3)

Prerequisites: MAE 490A, 409A.
Rapid product development using solid modeling features. Simplified finite element analysis and optimization of different design proposals. Quality control process via a 3-D scanner and data acquisition software for checking tolerances and dimensions of complex parts or assembled mechanisms. Product readiness for casting, mold flow analysis or machining via CAM.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 499./599. Mechanical and Aerospace Engineering Seminar

 (1)Prerequisite: Approval of undergraduate or graduate advisor.
Seminars on topics of current interest in Mechanical and Aerospace Engineering and presentation of student/faculty research.
May be repeated to a maximum of 3 units; only 1 unit of credit may be applied toward degree requirements. (Seminar 1 hour) Letter grade only (A-F).

## GRADUATE LEVEL

## 501. Engineering Analysis I (3)

Prerequisite: MATH 370A.
Differential equations, series solutions of differential equations (special functions), boundary-value problems and characteristic function representation, Laplace transforms, Fourier analysis, partial differential equations, formulating and solving problems in engineering for systems of differential equations and partial differential equations, complex analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 502. Engineering Analysis II (3)

Prerequisite: MAE 501.
Linear algebra, matrix computations, systems of differential equations, eigenvalue problems, iterative solution of systems of algebraic equations, numerical methods for ordinary and partial differential equations, systems of nonlinear equations, optimization.
(Lecture-problems 3 hours) Letter grade only (A-F)

## 505. Quantitative Methods for Engineering Managers (3)

Prerequisite: MAE 501 or 502 or equivalents.
Concepts and methods using quantitative approaches in engineering management decision-making. Computer-based tools used in management decision-making for subjective approaches. Probabilistic methods, forms of linear program model, network analysis, dynamic programming, Monte Carlo simulation and queuing models. Methods formulating problems are emphasized.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 506. Management of Engineering Technology and Innovation (3)

Prerequisite: Graduate engineering standing.
Analysis of the principles and theory of engineering administrative organizations, information systems, management functions, decision making tools, strategies and administrative policy formulations.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 507. Engineering Project Management (3)

Prerequisite: Graduate engineering standing.
Theory and philosophies of project management, principles of internal and industrial organization planning and control systems, motion in time study, industrial statistics, industrial research as aid to decision making.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 508./408. Systems Engineering and Integration (3)

Prerequisite: Senior standing or consent of instructor.
Tools and methods employed by systems engineers in aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in context of integrated product teams and the product life cycle. Trade studies and risk management. Projects assigned, written reports and oral presentations are required.
Additional projects required for MAE 508. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 511. Advanced Manufacturing Management Systems (3)

Prerequisite: Consent of Instructor.
Management systems for Integrated Product Development (IPD) and Concurrent Engineering (CE); Emphasis on Just-in-Time Manufacturing (JIT);Quality-Based Manufacturing Systems: TQM and ISO 9000; Customer Requirement and Quality Function Deployment (QFD); Design for Manufacturing and Assembly (DFMA) and other defect prevention systems.
(Lecture-Problems 3 hours) Letter grade only (A-F).
512./612. Computer Aided Design in Mechanical Engineering (3)
Prerequisites: MAE 490A, 501, 502. (Master's students register in MAE 512 or 612; Ph.D. students register in MAE 612).
Computer graphics in CAD/CAM. Includes geometrical transformations, viewing in three dimensions, modeling and object hierarchy, represenation of 3D shapes, shading models and imaging databases and data transfer.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 521. Engineering Metallurgy II (3)

Prerequisite: MAE 322.
Properties and uses of structural steels: heat treatable steels; titanium alloys; nickel and cobalt base alloys; refractory metals; ultra high-strength steels; stainless steels; and metal matrix composite materials. Designing for fracture resistance.
(Lecture-Problems 3 hours) Letter grade only (A-F).
522./422. Composite Materials (3)

Prerequiste: MAE 373.
Stress-strain relations for anisotropic materials. Classical lamination theory. Strength and failure theories for laminae and laminates. Micromechanics. Applications of composite structures. Additional projects will be required for MAE 522 .
(Lecture-problems 3 hours) Letter grade only (A-F).
524./424. Engineering Principles and Properties of Plastics (3)
Prerequisite: MAE 373.
Nature of polymers, physical and mechanical properties of plastics. Polymerization reactions and production. Properties of co-polymers, polymer solutions, isco-elastic properties of polymerics. Additional projects will be required from M.S. students.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 527. Metals and Plastics Manufacturing Processes (3) <br> Prerequisite: MAE 322.

Theory of metal forming and plastics processing. Includes metal forging and rolling, metal and plastics extrusion, plastics injection molding, casting. Discussion of appropriate manufacturing methods. (Lecture-problems 3 hours) Letter grade only (A-F).
529. Structural Analysis of Composite Laminates (3)

Prerequisite: MAE 522 or consent of instructor.
Beams, columns and rods of composite materials. Bending, vibration and buckling analysis of composite laminates. Shells of composite materials. Joining of composite material structures.
(Lecture-Problems 3 hours) Letter grade only (A-F).
530./430. Measurement Techniques in Fluid Mechanics and Heat Transfer (3)
Prerequisites: MAE 330, 431, CE 335.
Experimental uncertainty, electrical transducers and pressure measurements, thermocouples and other temperature measurement devices, resistance bridges, amplifiers and filters, optical
measurement devices, digital image processing, holography and laser doppler velocimeter. Additional projects are required for MAE 530.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 531. Advanced Heat Transfer (3)

Prerequisites: MAE 431, 501.
Advanced topics in conduction and convection heat transfer, analytical and numerical solutions to multidimensional heat conduction equations in various geometries. Solutions to laminar and turbulent convective heat transfer problems. External and internal flows, free and forced convection, and mass transfer from external surfaces. Applications in thermal systems design.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 532. Combustion I (3)

Prerequisites: MAE 336, 431.
Fundamentals of combustion engineering: fuels; chemical thermodynamics and chemical kinetics; premixed and diffusion flames; ignition and extinction; Hugoniot curves; flammability and explosion limits; pollutant formation and control; applications in spark-, and charged-ignition internal combustion engines; gas-fired and oil-fired furnaces.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 533. Gas Dynamics (3)

Prerequisite: MAE 333 or equivalent. Isentropic flow, normal and oblique shocks,
Prandtl-Meyer flow, shock expansion theory, method of characteristics, nozzle flow, flow in ducts with friction and heat transfer, solutions for the linearized potential equation with applications to wings and bodies, slender body theory, similarity rules, transonic flow, shock wave/boundary layer interactions. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 534. Transport Processes in Porous Media (3)

Prerequisite: Graduate Standing in engineering.
Fundamentals of mass, momentum and heat transfer through porous media; flow characteristics of porous structures; principles of single-phase and multi-phase flow in porous media; flow of imiscible and miscible fluids, hydrodynamic dispersion in porous structures, deterministic and stochastic modeling of flow in porous media.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 535./435. Computational Fluid Dynamics I (3)

Prerequisites: MATH 370A, MAE 333.
Numerical methods for elliptic, parabolic, and hyperbolic equations, finite difference and finite volume methods, analysis of consistency, stability, and convergence, panel method, modeling and computation of boundary layer flows, etc.
Additional projects will be required for MAE 535. (Lecture-Problems 3 hours) Letter grade only (A-F).
536. Statistical Thermodynamics (3)

Prerequisites: MAE 330, 501 or equivalent.
Fundamentals of statistical mechanics; quantum mechanics and statistics as applied to thermodynamics; behavior of gases and solids; chemical equilibrium.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 537. Advanced Fluid Dynamics I (3)

Prerequisites: CE 335, MAE 431.
Dynamics of ideal, real and compressible flows, potential flow, vortex flow, the Navier Stokes equations, integral and differential equations for laminar flow, exact solutions for laminar flow, steady and unsteady compressible flows.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 538./438. Heating, Ventilating, Air Conditioning, and

 Refrigeration (3)Prerequisites: MAE 330, CE 335.
Basic HVAC system calculations. Thermodynamics and psychometrics, design conditions and load estimating, residential and non-residential heating and cooling load calculations, energy estimating methods, duct and pipe siding, and life cycle costs.
Additional projects required for MAE 538. (Lecture-Problems 3 hours) Letter grade only (A-F).

## 551./451. Aircraft Preliminary Design and Performance (3)

Prerequisite: Consent of instructor.
Complete aircraft preliminary design, including mission definition, specifications and regulations. Preliminary takeoff weight and weight empty for a specific mission. Aircraft geometric characteristics are developed. Detailed aerodynamic data are estimated and used to calculate aircraft performance. The design project is conducted in teams for MAE 451 and individually for MAE 551.
(Lecture-Design Project 3 hours) Letter grade only (A-F).

## 553./453. Stability and Control of Aerospace Vehicles (3)

Prerequisite: MAE 350 or equivalent.
Physical dependence of airplane stability and control characteristics on airplane configuration and flight condition. Equations for the static longitudinal, lateral and directional stability of airplanes. Neutral points, control effectiveness, trim in maneuvering flight. Configuration determinants. Transient modes. Additional Projects required for MAE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 554./454. Avionics Systems (3)

Prerequisite: MAE 553.
Avionics systems requirements definition and design. Systems used for guidance and navigation. Components of avionics systems (software, integrated circuits, devices, etc.). Integration of optics and electronics. Testing and certification.
(Lecture-Problems 3 hours) Letter grade only (A-F).
563. Linear Finite Element Analysis (3)

Prerequisite: MAE 409A.
Finite element(FE) forms of differential equations. Isoparametric concepts. Dynamic response of damped elastic structures, modal and direct integration analysis. Automatic mesh generation via solid modeling using IDEAS, automatic adaptation to popular software such as: STRUDL, NASTRAN, ANSYS, and ABAQUS. FE fluid flow and heat transfer analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).
565. Advanced Aerospace Structures (3)

Prerequisite: MAE 465 or consent of instructor.
Application of energy principles and finite element method to aerospace structural components, plates and shells without stiffeners, structural dynamics, material and geometric nonlinear problems. FEA for composite structures, application to simple wings, finite element modeling techniques, application of finite element computer programs. (Lecture-problems 3 hours) Letter grade only (A-F).

## 567. Advanced Mechanics of Deformable Bodies (3)

Prerequisites: MAE 373, 374, 471 or consent of instructor.
Analysis of stress and deflection in unsymmetrical bending, shear center for beams, curved beams. Stress concentration, deformation beyond the elastic limit. Energy method; Castigliano's Theorem; Rayleigh-Ritz technique.
(Lecture-problems 3 hours) Letter grade only (A-F).
568. Creep and Fatigue (3)

Prerequisites: MAE 322, 373, or consent of instructor.
Phenomena of creep and fatigue; effect on stress distribution in structural elements; buckling caused by creep; effects of space environment on fatigue; cumulative fatigue damage at normal and elevated temperatures.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 572. Structural Design Optimization (3)

Prerequisite: MAE 373 or consent of instructor.
Structural optimization using calculus of variations. Method of Lagrange multipliers, unconstrained and constrained optimization, fast reanalysis techniques, sequential approximate optimization, sensitivity calculations of structural response, variational sensitivity analysis, approximation techniques, optimal design of laminated composite materials etc.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 573. Advanced Control of Mechanical Systems (3)

Prerequisite: MAE 476.
Advanced topics in analysis and design of modern control systems in mechanical engineering. Topics include state space, Riccati and Liapunov equations, Linear Quadratic Regulator (LQR), Kalman filter, etc. Optimization via calculus of variations, Pontryagin's minimum principle. Control of distributed-parameter systems with applications to structural dynamics.
(Lecture-problems 3 hours) Letter grade only (A-F).
574./474. Computer-Aided Manufacturing (3)

Prerequisites: MAE 322, 490A.
Fundamental concepts in automation. High volume discrete parts production systems. Numerical control manufacturing systems. Computer process monitoring. Direct digital control. Group techniques. Flexible manufacturing systems. Additional projects will be required from M.S. students in a wide-range of Engineering applications.
(Lecture-problems 3 hours) Letter grade only (A-F).
575. Advanced Dynamics with Robot Applications (3)

Prerequisites: MAE 371, MATH 370A.
Detailed study of rigid body dynamics with emphasis on robot arm analysis. Three-dimensional kinematic analysis. Rotational and homogeneous transformations. Eulerian angles. Denavit Hartenberg representation. Kinematic chains. Recursive formulas. Euler's moment equations and gyrodynamics. Multi-body analysis. Lagrange's equations. Special topics.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 576. Engineering Vibrations I (3)

Prerequisite: MAE 376.
Fundamentals of mechanical vibrations, types of oscillatory motions. Single-Degree-of-Freedom (SDOF) and Multiple-Degree-ofFreedom (MDOF) systems. Free and forced vibrations, damping, vibration isolation, vibration measuring instruments, Modal analysis. Lagrange's equations. Introduction to Finite Element Method and modal testing.
(Lecture-problems 3 hours) Letter grade only (A-F).
579. Engineering Acoustics (3)

Prerequisites: MAE 376, 502.
Theory and application of acoustical principles to generation, transmission, measurement and control of sound.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 581. Space Vehicle Design (3)

Prerequisite: Graduate engineering standing or consent of instructor.
Space environments and their impact on spacecraft design. Space
mission design. Payloads and communications. Integration of attitude determination and control, thermal, propulsion, configuration, telemetry, power, structures, and data handling subsystems.
(Lecture-Problems 3 hours) Letter grade only (A-F).
582. Rocket and Spacecraft Propulsion (3)

Prerequisite: Graduate engineering standing or consent of instructor.
Thrust and specific impulse. Compressible flows. Detailed analysis of liquid, solid and hybrid propulsion systems. Includes propellants, injection systems, combustion and chemical equilibrium, thrust chambers, nozzles and plumes. Electro-thermal thrusters. Plasmas and electromagnetic thrusters.
(Lecture-Problems 3 hours) Letter grade only (A-F).
583. Astrodynamics (3)

Prerequisite: MAE 502.
Physical principles. Two-body and central force motion. Coordinate and time systems. Trajectory correction maneuvers. Position and velocity in conic orbits. Lambert's Problem. Celestial mechanics. Orbital perturbations. Numerical methods in orbital mechanics and mission analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 585. Spacecraft Attitude Determination and Control (3)

Prerequisite: MAE 501 or equivalent. Rigid-body dynamics.
Control systems. Spacecraft attitude dynamics and control.
Stabilization methods and maneuvers. Impact of flexible structures.
(Lecture-Problems 3 hours) Letter grading only (A-F).
590./690. Advanced Topics in Mechanical and Aerospace Engineering (3)
Prerequisite: Graduate engineering standing or consent of instructor. Selected topics from recent advances in mechanical engineering.
Course content will vary from year to year. Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 595./495. Rapid Product Development (3)

Prerequisite: MAE 490A.
Creating different design proposals for a specified period.
Manufacturing design models via rapid prototyping. Simplified finite element analysis and optimization of different design proposals. Quality control process via a 3-D scanner and data acquisition software. Product readiness for casting, mold flow analysis. Additional projects required from M.S. students.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 599./499. Mechanical and Aerospace Engineering

 Seminar (1)Prerequisite: Approval of undergraduate or graduate advisor.
Seminars on topics of current interest in Mechanical and Aerospace Engineering and presentation of student/faculty research. Additional assignments will be required from graduate students.
May be repeated to a maximum of 3 units; only 1 unit of credit may be applied toward degree requirements. (Seminar 1 hour) Letter grade only (A-F).

## 612./512. Computer Aided Design in Mechanical Engineering (3)

Prerequisites: MAE 490A, 501, 502. (Master's students register in MAE 512 or 612; Ph.D. students register in MAE 612).
Computer graphics in CAD/CAM. Includes geometrical transformations, viewing in three dimensions, modeling and object hierarchy, represenation of 3D shapes, shading models and imaging databases and data transfer. Additional projects required for MAE 612.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 631. Thermal Radiation (3)

Prerequisite: Consent of instructor.
Fundamentals of thermal radiation, properties of matter, radiative exchange in enclosures, equation of transfer for radiative transfer in absorbing, emitting, scattering media, gas radiation, and solutions for gas flows.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 632. Combustion II (3)

Prerequisites: MAE 501, 532.
Advanced topics in combustion: conservation equations for multicomponent reacting systems; detonations and deflagrations; laminar and turbulent flames; flammability limits; ignition and extinction, combustion and radiation and their interactions.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 633. Hypersonic Flow (3)

Prerequisite: MAE 533.
Hypersonic shock and expansion-wave relations, similarity concepts, Newtonian theory and modified Newtonian theory, nonlinear small-disturbance theory, blunt body flows, hypersonic viscous/inviscid interactions, aerodynamic heating, real gas effects, waveriders, atmospheric reentry.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 635./735. Computational Fluid Dynamics II (3)

Prerequisite: MAE 535.
Computational methods for solving Euler and Navier-Stokes equations, implicit and explicit schemes, upwind differencing and artificial diffusion, multi-grid techniques and convergence acceleration, unstructured grid techniques, turbulence modeling, application to inviscid and viscous subsonic, transonic, and supersonic flows, inverse problems and aerodynamic shape optimization.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 637. Advanced Fluid Dynamics II (3)

Prerequisites: MAE 431, 501, 537.
Transition to turbulent flow, wall bounded and free turbulent shear flows, numerical methods for turbulent flow, turbulence modeling. (Lecture-problems 3 hours) Letter grade only (A-F).

## 638. Engineering Calculation Methods for Turbulent Flow (3)

Prerequisite: MAE 537 or consent of instructor.
Introduction to numerical methods for the solution of boundarylayer equations. Solution of two-dimensional internal and external turbulent boundary-layer problems. Unsteady flows, calculation of stability and transition.
(Lecture-problems 3 hours) Letter grade only (A-F).
639. Turbulence (3)

Prerequisites: MAE 532, 537.
Nature of turbulent flows, dynamics of turbulence, statistical description, homogeneous turbulence and spectral dynamics characteristics of turbulent shear flows.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 642. Aeroelasticity (3)

Prerequisites: MAE 533,576, or consent of instructor.
Deformations of airplane structures under static and dynamic loads. Natural modes and frequencies of complex airplane structures. Analysis of static aeroelastic phenomena. Fundamental concepts of unsteady aerodynamics. Flutter of swept wings. Dynamic response phenomena. Computational aeroelasticity techniques.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 663./763. Nonlinear Optimized Structures (3)

Prerequisite: MAE 563, or consent of instructor. (Master's students register in MAE 663, Ph.D. students register in MAE 763.)
Analysis, optimization of frame with automatic mesh generation using I-DEAS, with popular software such as: STRUDL, NASTRAN etc. Generation, idealization of complex structures. Sensitivity, Buckling analysis etc. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 669. Design of Composite Structures (3)

Prerequisite: MAE 522 or consent of instructor.
Design concepts and guidelines of composite structures. Strength and stiffness design of composite laminates. Optimum design. Fatigue and creep of composite structures. Design of bolted and bonded joints.
(Lecture-Problems 3 hours) Letter grade only (A-F).

## 671. Random and Nonlinear Vibrations (3)

## Prerequisite: MAE 576.

Characterization and transmission of random vibration; failure due to random vibration. Classification of nonlinear problems; exact, graphical and approximate solutions, singular points, stability.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 672. Stress Analysis in Design (3)

Prerequisite: MAE 567 or consent of instructor.
Modes of failure and failure criteria. Stability of mechanical models, elastic bars and frames by kinetic and energy approaches; design of columns, beam columns and framed columns. Plastic collapse and limit analysis. Experimental methods of stress analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).
673. Theory of Elasticity and Plasticity (3)

Prerequisite: MAE 567.
Equations of the mechanics of elastic bodies. Plane problem. Bending, torsion, and extension of Prismatic Bodies. Threedimensional problem. Propagation of waves in elastic media. Approximate methods. Theory of plasticity.
(Lecture-problems 3 hours) Letter grade only (A-F).
675. Modal Analysis (3)

Prerequisite: MAE 576.
Coverage of modal analysis techniques. Digital signal processing, including Fast Fourier Transform, Hilbert Transform, Structural dynamics theory, complex modes, state space, damping, nonsymmetries, modal parameter estimation techniques, and application of modal measurement methods suitable for practical vibration analysis problems.
(Lecture-problems, 3 hours) Letter grade only (A-F).

## 676. Engineering Vibrations II (3)

Prerequisite: MAE 576.
Free, forced, and self-excited vibrations. Rayleigh's quotient, Rayleigh-Ritz, Galerkin, collocations, Finite Element Methods. Vibrations in rotating and reciprocating machines. Response of structures to random and shock loads. Transfer function and frequency response methods. Vibration control of discrete systems and flexible structures, including large space structures.
(Lecture-problems, 3 hours) Letter grade only (A-F).

## 677./777. Digital Simulation in Engineering (3)

Prerequisites: MAE 490A, 409. (Master's students register in MAE 677 or 777 ; Ph.D. students register in MAE 777).
3D-modeling and animation of real structures. Multimedia; Rapid Prototyping; Optimization of heat transfer-, fluids-, electrodynamic and structural problem solutions. Dynamic data structure-, program structure-, and secondary storage control-statements. Maintenance and modification of a program bank.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 690./590. Advanced Topics in Mechanical and Aerospace Engineering (3)

Prerequisite: Graduate engineering standing or consent of instructor.
Selected topics from recent advances in mechanical engineering. Course content will vary from year to year. Topics will be announced in the Schedule of Classes. Additional projects required for MAE 690.
May be repeated for a maximum of 6 units with different topics. (Lecture-problems 3 hours) Letter grade only (A-F).

## 691. Directed Studies (1-3)

Study of information in engineering and scientific literature on a current topic under the direction of a faculty member. Preparation of a written report based on this reading.
Letter grade only (A-F).

## 697. Directed Research (1-6)

Prerequisite: Graduate standing in Mechanical and Aerospace Engineering.
Theoretical and experimental problems in mechanical and aerospace engineering requiring extensive research and analysis. Submission of a final report and its approval by an evaluating committee are required.
May be repeated to a maximum of 6 units. Not open for credit to students who are enrolled in MAE 698. Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisite: Enrollment is limited to students advanced to candidacy or eligible for it.
Department Graduate Advisor must be consulted and a Thesis Permission form submitted for each semester of enrollment. Planning, preparation, and completion of a thesis in mechanical and aerospace engineering.
May be repeated to a maximum of 6 units. Not open for credit to students who are enrolled in MAE 697. Letter grade only (A-F).

## 735./635. Computational Fluid Dynamics II (3)

## Prerequisite: MAE 535.

Methods for solving Euler and Navier-Stokes equations, implicit and explicit schemes, upwind differencing and artificial diffusion, multi-grid techniques and convergence acceleration, unstructured grid techniques, turbulence modeling, application to inviscid and viscous subsonic, transonic, and supersonic flows,etc.
Additional projects required for MAE 735.(Lecture-Problems 3 hours) Letter grade only (A-F).

## 763./663. Nonlinear Optimized Structures (3)

Prerequisite: MAE 563, or consent of instructor. (Master's students register in MAE 663, Ph.D. students register in MAE 763.)
Analysis, optimization of frame with automatic mesh generation using I-DEAS, with popular software such as: STRUDL, NASTRAN etc. Generation, idealization of complex structures. Sensitivity, Buckling analysis etc. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis. (Lecture-problems 3 hours) Letter grade only (A-F).

## 777./677. Digital Simulation in Engineering (3)

Prerequisites: MAE 490A, 409. (Master's students register in MAE 677 or 777; Ph.D. students register in MAE 777).
3D-modeling and animation of real structures. Multimedia; Rapid Prototyping; Optimization of heat transfer-, fluids-, etc. Dynamic data structure-, program structure-, and secondary storage controlstatements. Maintenance and modification of a program bank. Additional projects required for MAE 777.
(Lecture-problems 3 hours) Letter grade only (A-F).

## 795. Advanced Directed Studies (4)

Prerequisite: MS or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics.
Explorations of theoretical and experimental (if applicable) engineering problems in great depth with emphasis on mathematical modeling and analysis. Students must present the findings in a formal report.
May be repeated to a maximum of 8 units. Letter grade only (A-F).

## 797. Advanced Directed Research (4)

Prerequisite: MS or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics.
Explorations of theoretical and experimental (if applicable) Engineering problems in great depth with emphasis on mathematical modeling and analysis. Students must present the findings in a formal report and a seminar.
May be repeated to a maximum of 8 units. Letter grade only (A-F).

## 798. Doctoral Dissertation (4-12)

Prerequisite: Enrollment is limited to students formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics who have passed the preliminary examinations and research tool tests on completion of at least 48 units of course work.
A written dissertation proposal containing an outline of the research to be undertaken and references to relevant source material must be submitted. Only upon a positive recommendation may a student embark on a dissertation.
Minimum of 4 units per semester. Letter grade only (A-F).

# MEDIEVAL AND RENAISSANCE STUDIES <br> College of Liberal Arts 

## Directors

Lloyd E. Kermode
Martine van Elk

## Telephone

(562) 985-4212 or (562) 985-4222

## Program Office

Library East (LBE), Room 113
Sharon Olson
985-4546

## Faculty

## Professors

Dorothy Abrahamse (History), Conrad Barrett (Classics), Anthony Battaglia (Religious Studies), Clorinda Donato (Romance, German, Russian Languages and Literatures), Kristine K. Forney (Music), J. Charles Jernigan (Comparative World Literature), Irene Marchegiani Jones (Romance, German, Russian Languages and Literatures), Stanley Jones (Religious Studies), Eileen Klink (English), Julia Miller (Art)

## Associate Professor

Lloyd E. Kermode (English), Lisa Vollendorf (Romance, German, Russian Languages and Literatures)

## Assistant Professors

Alice M. Doyle (Music), Bonnie Gasior (Romance, German, Russian Languages and Literatures), Timothy Keirn (History), Marie Kelleher (History), Britt Mize (English), Lawrence Nolan (Philosophy), Martine van Elk (English)

The Center for Medieval and Renaissance Studies sponsors activities that explore the complex culture of the Middle Ages and the Renaissance. It sponsors a regular lecture series featuring speakers from on and off campus. Occasionally special seminars are held to commemorate a person, place, or event of significance from these periods; recent topics have included Richard III, Florence and Rome 1200-1600, The Sensual Culture of Venice, 1066 And After That, and La Felicissima Armada. The Center also offers courses on a wide range of medieval and Renaissance issues, supports faculty research both here and abroad, and is associated with most of the local and national societies relevant to research in these fields.

In addition, the Center has established an interdisciplinary program which offers students interested in these periods the opportunity to pursue a course of study leading to a Certificate in Medieval and Renaissance Studies. Courses which are used to meet the certificate requirements may be counted, where applicable, toward the General Education requirements, the major, and minor requirements.

Interested students should apply to Directors, MHB 512 , or to members of the supporting faculty for further information.

## Minor in Medieval and Renaissance Studies (code HISTUM04)

The Minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of the Middle Ages and the Renaissance. The Minor's flexible program of study is ideal for students interested in intellectual enrichment and professional development in their major. Students should contact the program director prior to or during the first semester of taking classes towards the Minor.

The Minor consists of a minimum of 21 units selected in consultation with the program director in addition to demonstrated competence in a foreign language appropriate to the area of concentration. The 21 required units include 12 units of core classes in History, Literature, and Art History, along with 9 electives chosen from the courses in these disciplines as well as from Music, Political Science, Philosophy, Religious Studies, RGLL, and Theatre.

## Core Requirements

1. Six units of one of the following combinations: HIST 316 and 317 ; or HIST 317 and 332; or HIST 332 and 333.
2. Three units of an upper-division course in Literature: CWL 349 † , 414I, 422I, 430, 431, 432, 449 † ; ENGL 363, 432, 451, 452, 453, 461, 462, 463, 468, 469 † , 483, 498 † ; FREN 470, $471,472,490$ † ; GERM $415,498+$; GK 490 † ; ITAL 335, 437, $490 \dagger$; LAT $490 \dagger$; SPAN $330 \dagger, 446 \dagger, 490 \dagger, 493 \dagger$.
3. Three units of an upper-division course in Art History: AH $408,409,410,423,424,425,497$ † , 498 † .
4. Nine additional units chosen from the courses listed above (without repeating the required core) and the following: HIST 318, 334, 351, 353, 400I, 409, 414I, 431, 495 t, 499 †; MUS 360, 400R, 400S; PHIL 413, 490†; POSC 493†, 497†; RGR 450I; R/ST 314, 331I, 459, 471I, 472I, 490 †; THEA 321, 490 + .

+ courses that can only count towards the minor if the topic is relevant to medieval and Renaissance studies.


## Certificate in Medieval and Renaissance Studies (code CLSCCT01)

## Requirements

1. A bachelor's degree with an approved major. (Certificate may be completed prior to the completion of the B.A. requirement or while in the process of working toward an advanced degree).
2. Consultation with and approval of the program by a faculty advisor.
3. Intermediate level language proficiency on the college level, including a course in medieval or Renaissance literature of the language. It is expected that the language selected will be Latin, but with the consent of the advisor, AngloSaxon, French, German, Italian, Spanish, or Greek may be substituted.
4. Twenty-four units selected from the following courses. Students should elect to concentrate in either the medieval or Renaissance period.
A. Required courses (12 units): one of the following sequences for six units: HIST 316 and 317,317 and 332 , or 332 and 333 . One of the following literature courses for three units: CWL 431, 432, 531, 532; ENGL 451, 452, 453, 552, 553, 554. One of the following Art History courses for three units: AH 408, 409, 410, 423, 424, 425, 508, 509, 510, 523, 524, 525.
B. Nine units selected from the following courses (without repeating the required core): $\mathrm{AH} 408,409,410,423$, 424, 425, 497†, 498†; CWL 349†, 414I, 422I, 430, 431, 432, 449+; ENGL 363, 432, 451, 452, 453, 462, 463, 468, 469†, 483, 498†; FREN 470, 471, 472, 490†; GERM 415, 498†; GK 490†; HIST 316, 317, 318, 332, 333, 334, 351, 353, 400I, 409, 414I, 431, 495†, 499†; ITAL 335, 437, 490†; LAT 490†; MUS 360, 400R, 400S; PHIL 413, 490†; POSC 493†, 497†; RGR 450I; R/ST 314; 331I, 459, 471I, 472I, 490†; SPAN 330†, 446†, 490 + , 493 $\dagger$; THEA 321, $490 \dagger$. Graduate courses: AH 508, 509, 510, 523, 524, 525, 597†, 598†; CWL 530, 531, 532, 549†, 550†; ENGL 550, 551, 552, 553, 554, 562, 568, 583†, 652, 653, 681†, 683†; FREN 570, 571, 572, 590 ${ }_{\dagger}$, 604 $\dagger$, 688 $\dagger$; GERM 511 $\dagger$; HIST 509, $510^{\dagger}$, 531, 611+, 631†; MUS 561; PHIL 513, 590†, 630†, 690†; R/ST 559, 590 $\dagger$; SPAN 538, 546 $\dagger, 550$, 590 $\dagger$, 593 $\dagger$; THEA 690 ${ }^{+}$.
C. Three units of directed research on a medieval or Renaissance topic in any of the following courses: AH 495, 496, CWL 499, ENGL 499, FREN 499, GERM 499, GK 499, HIST 498, ITAL 499, LAT 499, MUS 499, PHIL 499, POSC 499, R/ST 499, SPAN 499, THEA 498. Graduate courses: AH 595, 596, ENGL 598, 697, FREN 697, GERM 599, 697, HIST 695, 697, PHIL 697, POSC 599, 697, R/ST 697; SPAN 599, THEA 694.

+ With an approved Medieval or Renaissance topic; certain special studies topics may be repeated for credit with approval.

Program Director<br>Lieutenant Colonel Steven Summy<br>Program Office<br>Engineering Technology (ET) 104 / HSB 108<br>Faculty<br>Master Sergeant Carl Halbert<br>Master Sergeant Marvin Herbert<br>Website<br>www.csulb.edu/org/armyrotc

The Army Reserve Officers Training Corps (Army ROTC) program offers leadership and management training to CSULB students which consists of courses taught by Army personnel. This dynamic four-year program of instruction develops the mental and physical abilities of students in preparation for positions of leadership with the military and civilian communities. Students may enroll for academic elective credit without incurring any military service obligation. The curriculum includes military leadership and management courses; courses which provide an awareness of the heritage of the U.S. Military; the Armed Forces' role in national defense strategy; professional military subjects; and military ethics. The program is oriented towards preparing the student for a military career. Students desiring to attain a highly sought-after commission as a Second Lieutenant in the U.S. Army must meet eligibility requirements and complete the Military Science/Army ROTC (Reserve Officer Training Corps) Advanced Course. To be eligible for the Commissioning Program, a student must be enrolled full time (12 units) at CSULB, have at least two years remaining as a university student, be physically qualified, complete the advanced course and graduate prior to reaching their 31st birthday.

## Financial Assistance

Many opportunities for financial assistance are available to students. Three areas of opportunities are: ROTC cadets who sign a contract for Advanced Phase, students who earn an ROTC scholarship, and cadets who train with Reserve or National Guard units. ROTC cadets who sign a contract to participate in the Advanced Course of ROTC receive a $\$ 300$ - \$500 a month allowance. Highly competitive two-, three-, and four-year ROTC scholarships are available. The scholarship provides payment of full tuition, books, supplies, and the \$300-\$500 a month allowance for the duration of the scholarship. Students interested in scholarship competition should contact the Military Science Program at the time of application to the university. Reserve or National Guard training provides two additional sources of financial assistance: approximately $\$ 150$ a month for one weekend drill and approximately $\$ 145$ a month tuition assistance from the Army Reserve or National Guard "New GI Bill" benefits.

## Equipment and Uniforms

All necessary equipment, uniforms and textbooks for participation in the Military Science/ROTC program are furnished to the student by the United States Government free of charge. Title to this property, other than expendable items, remains with the government. Students entering into active commissioned service after graduation are granted a special \$200 uniform allowance.

## Four-Year Program

The four-year program curriculum is divided into two parts. The Basic Course is primarily for freshmen and sophomores, and the Advanced Course is for junior and senior level students. In special cases, the Advanced Course is available to students working towards graduate degrees.

## Basic Course

The Basic Course is a one to two-year period where students may, without obligation, investigate the ROTC Program and the military as a full- or part-time career. Students may enter and leave during any semester. The curriculum for the Basic Course is consists of the lower division courses listed below. To become an ROTC cadet during the Basic Course requires the student be registered for a Military Science class, completion of an ROTC enrollment form (obtained at the Military Science Department, Technology Education, Room 108), and an interview with the ROTC Enrollment Officer. Because this course is for students to examine the ROTC Program without obligation, participation in ROTC activities is encouraged but not mandatory. Advancement into the Advanced Course is accomplished either by successfully completing the Basic Course classes, completing ROTC Summer Basic Camp or completing any military basic training program.

## ROTC Leaders Training Course

One method to qualify for the Advanced Course is to successfully complete the challenging 30-day ROTC Summer Basic Camp. Students normally attend Basic Camp between their second and third academic years. It is important that potential transfer students who plan to participate in the two-year ROTC program make their intentions known directly to the Military Science Program no later than May of the year they plan to register at the university even though this date may precede the date of their final acceptance by the university.

The government will provide a transportation allowance to and from Basic Camp and the student will also receive approximately $\$ 600$ during the 30 days. All equipment, uniforms, room and medical care are furnished free while at camp. No military obligation is incurred as a result of attendance. It is recommended though that the student be committed to pursuing a career in the military either in an active or reserve capacity.

## Basic Training

Outstanding students who have successfully served on active duty, regardless of the branch of service, are qualified to enter the Advanced Course. Also, students who have been, or are members of Reserve or National Guard units and have completed basic training are qualified for the Advanced Course. Students may be required to take certain lower division classes even after enrollment in the Advanced Course.

## Leader Development/Assessment Course

The Advanced Course is a two-year period where ROTC cadets receive advanced leadership and management training. The cadets receive many hours of hands-on, practical leadership experiences to prepare them for a military career or a management position in the civilian sector. To become a cadet in the Advanced Course a student must complete the Basic Course, or ROTC Summer Basic Camp, or Basic Training. The cadet must also make a commitment to attend all required training activities and sign a contract to accept a commission in the United States Army. In return for the student's commitment, the Military Science Department will provide \$350-\$500 a month, classroom instruction, real leadership opportunities, and continuous feedback on each cadet's leadership progress. A 32-day summer training camp, between the two years of the Advanced Course, will be provided for assessing and developing each cadet's leadership abilities. All equipment, uniforms, room, board, and medical care are furnished free while at this camp. The cadets will also receive pay at the rate of one-half of Second Lieutenant's basic pay. Upon successful completion of the Advanced Course and graduation from the university, the cadet will be eligible to be commissioned as a Second Lieutenant in the United States Army.

## Required Related General Education Subjects

1. Written Communications: (Category A) ENGL 100
2. Human Behavior: (Category D) POSC 100
3. Computer Literacy
4. Mathematical Reasoning: (Category B) MATH 103 or 110

Courses (MS)

## LOWER DIVISION

## 101. Foundations of Officership (1)

Introduction to issues and competencies that is central to a commissioned officer's responsibilities, including: the Army Profession; personal development; physical well-being, leadership; values and ethics.

ROTC cadets who sign up for this course must also register for MS 101L. Letter grade only (A-F).
101L. Leadership Laboratory (1)
Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 101.

Assists students in transition from a civilian into a cadet. Exposure to Army values and selected military skills. Introduction to Army leadership techniques through basic leadership experiences and assessment

Credit/No Credit grading only.

## 102. Basic Leadership (1)

Prerequisite/Corequisite: MS 101 or consent of instructor.
Expands upon topics introduced in MS 101 by focusing on communications, leadership, and problem solving. Course also includes information about the organization of the Army, employment benefits, and work experience of Junior Officers.
ROTC cadets who register for this course must also register for MS 102L. Letter grade only (A-F).

102L. Leadership Laboratory (1)
Prerequisites: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 102.
Credit/No Credit grading only. (Activity 2 hours.)
201. Individual Leadership Studies (2)

Prerequisites: MS 101, 102 or concurrent enrollment in MS 102.
Using principles of action, experiential and discovery learning, students face challenging physical and mental tasks, including: personal development, goal setting, communication, problem solving, decision making, leadership, teamwork, group processes, stress management, physical fitness and application of lessons to officership.
ROTC cadets who register for this course must also register for MS 201L. Letter grade only (A-F).
201L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 201. Credit/No Credit grading only. (Activity 4 hours.)

## 202. Leadership and Teamwork (2)

Prerequisite: MS 201 or consent of instructor.
Continuation of MS 201. Continues to employ the principles of action, experiential, and discovery teaming.
ROTC cadets who register for this course must also register for MS 202L. Letter grade only (A-F).
202L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 202.
Credit/No Credit grading only. (Activity 4 hours.)

## UPPER DIVISION

## 301. Leadership and Problem Solving (3)

Prerequisites: MS 202 and consent of instructor.
Enables students with no prior military or cadet experience to learn essential cadet knowledge and skills necessary for the integration into the cadet battalion and successful performance of key cadet tasks. Students are introduced to the Leadership Development Program.
ROTC cadets who register for this course must also register for laboratory in MS 301L. Letter grade only (A-F).

## 301L. Leadership Laboratory (1)

Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 301.
Serve in leadership positions in the military chain of command at squad, platoon, and company levels. Develop and execute unit plans and orders; train other students in basic skill building, teamwork, execute small unit tactics, and prepare for Leadership Development and Assessment Course.
Credit/No Credit grading only.

## 302. Leadership and Ethics (3)

Prerequisites: MS 301 and consent of instructor.
Continues the development of students as leaders in foundational areas of leadership, interpersonal communications, values and ethics.
ROTC cadets who register for this course must also register for laboratory in MS 302L. Letter grade only (A-F).

## 302L. Leadership Laboratory (1)

Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 302.
Students serve in leadership positions in military chain of command at squad, platoon and company levels. Develop and execute unit plans and orders; train other students in basic skill building, teamwork, execute small unit tactics, and prepare for the Leadership Development and Assessment Course training and evaluation.
Credit/No Credit grading only.

## 401. Leadership and Management (3)

Prerequisites: MS 302 and consent of instructor.
Begin the final transition from cadet to lieutenant. Focus on the Army's training management system, coordinating activities with staff, and counseling skills.
ROTC cadets who register for this course must also register for MS 401L. Letter grade only (A-F).

## 401L. Leadership Laboratory (2)

Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 402.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (Activity 4 hours.)

## 402. Officership (3)

Prerequisites: MS 302 and consent of instructor.
Complete transition from cadet to Lieutenant. Examine unit ethical climate and commander's role as moral anchor of unit. Topics include military law and leadership, Army organization, tactical and strategic operations, administrative and logistical management. Includes Leadership Development and Assessment Course Capstone Exercise.
ROTC cadets who register for this course must also register for MS 402L. Letter grade only (A-F).

## 402L. Leadership Laboratory (2)

Prerequisite: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 402.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (Activity 4 hours.)

## 411. U.S. Military History (3)

Evolution of the art of war with emphasis placed on the changing nature of warfare as nations adjust to social, political, economic and technological developments.
ROTC cadets who register for this course must also register for MS 401L or 402L. Letter grade only (A-F).

## 497. Independent Studies (1-3)

Prerequisites: Consent of Program Director and prior approval of topic.
Individual studies with faculty supervision in an area of Military Science specialization.
Limited to a maximum of 3 units per semester. May be repeated to a maximum of 6 units. Letter grade only (A-F). (Discussion-Laboratory.)

Chair<br>John A. Carnahan<br>Department Office<br>University Music Center (UMC), Room C306<br>Telephone<br>(562) 985-4781<br>Faculty<br>\section*{Professors}

John T. Barcellona, Richard P. Birkemeier, John A. Carnahan, Michael R. Carney, Kristine K. Forney, H. Martin Herman, Roger C. Hickman, Justus F. Matthews, Deborah Mitchell, Donald J. Para

## Associate Professors

Carolyn Bremer, Shun-Lin Chou, Leland Vail, Daniel Zanutto
Assistant Professors
David Anglin, Ray Briggs, Gervacio Jose E. Brondial, Joan de Albuquerque, Alicia Doyle, Jeff Jarvis, Richard Rintoul, Jonathan Talberg

## Undergraduate Advisor

Leland Vail

## Graduate Advisor

Kristine K. Forney

## Credential Advisor

Deborah Mitchell

## Applied Music

Chi Asada, Piano; Jim Atkinson, French Horn; James Barrera, Saxophone; John Barcellona, Flute; Marian Bodnar, Voice; Andrea Byers, Violin; John Campbell, Bassoon; Marvellee Cariaga, Voice; Deborah Carnahan, Clarinet; Michael Carney, Percussion; Raynor Carroll, Percussion; Shun-Lin Chou, Piano; Axel Clarke, Percussion; Cecilia Coleman, Jazz Piano; Robin Cox, Composition; Charley Davis, Trumpet; Marcia Dickstein, Harp; Randy Drake, Percussion; Andrew Duckles, Viola; Brad Dutz, Percussion; Jerry Epstein, Viola; Ronald Eschete, Guitar; Dave Evans, Trumpet; Brian Farrell, Voice; Rob Frear, Trumpet; David Garrett, Cello; David Gerhart, Percussion; Helen Goode Castro, Clarinet; Valentina Gottlieb, Piano; Michael Grego, Clarinet; Michele Grego, Bassoon; Christine Guter, Voice; Christine Hayes, Trombone; John Hayhurst, Viola; Michael Higgins, Guitar; Carolyn Hove, Oboe; Arnel Ignacio, Clarinet; Joan LaRue, Trumpet; Bruce Lett, Jazz Bass; Phillip Levy, Violin; Sal Lozano, Saxophone; Christoph Luty, Bass; Greg Maldonado, Violin; Eric Marienthal, Saxophone; Loren Marsteller, Euphonium and Trombone; Doug Masek, Saxophone; Shigemi Matsumoto, Voice; Marjorie McMillin, Voice; James Miller, Trombone; Timothy Morrison, Trumpet; Richard Naill, Cello; Betty Olsson, Voice; Kevin O'Sullivan, Percussion; Norm Pearson, Tuba; Elisabeth Pehlivanian, Voice; Jeff Reynolds, Bass Trombone; Craig Richey, Piano; Linda Rose, Violin; Katharin Rundus, Voice; Ralph Sauer, Trombone; Francis Senger, Bass; Kevin St. Clair, Voice; Joe Stone, Oboe; Kimiyo Takeya, Violin; Jonathan Talberg, Voice; Darrin Thaves, Flute; Mark Uranker, Piano; Rena Urso-Trapani, Flute; John Van Houten, Tuba; Althea Waites, Piano; Henri Venanzi, Opera; Adriana Verdie de vas Romero, Composition; David Young, Bass; Chan Ho Yun, Violin.
Administrative Coordinator
Debi Scroggins

Students desiring information should contact the department office for referral to one of the faculty advisors: Undergraduate Advisor, Music Education (credential) Advisor or Graduate Advisor.

The undergraduate music curriculum provides programs for the student: who wishes to become a professional musician; who wishes to enter the teaching profession; for whom music is part of a general education; or who is intending to pursue an advanced degree in music.

All entering freshmen and transfer students are required to take a theory placement test and performance audition which are regularly administered in Spring and late Fall and are also available at the beginning of registration week each semester. Each entering student should inquire at the Music Office for dates and details. In addition, new students are required to meet with the advisor prior to registration.

Each music major must declare a specialization in some performance area (voice, piano, or other orchestral instrument), develop ability in this area, appear in student recitals, and demonstrate progress to the satisfaction of the faculty. NOTE: Due to admissions limitations, the department is no longer providing instruction in acoustic guitar. A limited number of jazz guitar students will be admitted each year.

All undergraduate music majors are required to pass a screening examination in applied music on their primary instrument or voice before advancement to upper division applied study. This upper division screening exam (UDSE) will cover repertoire that is determined by each applied area. Specific information regarding the test may be obtained in the music office or from the advisor. The exam will be administered at a regular jury after four (4) semesters of applied study, however transfer students may elect to take it earlier. Failure to pass the exam will result in automatic suspension of all music departmental scholarship aid and continued applied study at the lower division level through university extension (a fee is required). The exam may be repeated.

Each student must pass a piano proficiency examination regardless of the performance area (piano majors excepted). Detailed information may be obtained in the Music Office.

Participation in a major performance organization (MUS $100 / 300$ ) is required of each music major each semester. The performance ensemble must be approved by the department. Undergraduates are also required to register for Music Forum (MUS 110) every semester in residence to a total of 7 units.

The Department of Music offers graduate study leading to the Master of Arts or Master of Music degrees. The candidate should arrange for counseling with the graduate advisor through the department office. Special placement examinations or auditions are required to validate qualifications for graduate work in music.

All general requirements of the University must be met in addition to departmental requirements listed below. California State University, Long Beach is an accredited institutional member of the National Association of Schools of Music (NASM) (National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Music (code MUS_BA01) (120 units)

A non-performance-focused degree that sets music within the broader context of interdisciplinary studies, diversity, and contemporary thought. This humanistic degree has a basic music core, upper-division elective music units focused on popular, world, and film music as well as art music, an individualized track of non-music elective studies that focuses in at least two other disciplines (one major area and one or more minor areas), and a final research project culminating in a comprehensive senior paper.

Audition required prior to entrance to major to assess performance standard and for advising purposes.

## Requirements

Music Theory: MUS 141A/B, 142A/B, 341; select one course from: MUS 372 or 342
Music History: MUS 190, 290, 490; select three classes from MUS 160, 360, 374, 363 I and/or 364I;
Performance Organizations: MUS 100, 200 and/or 300, 400 for a minimum of 4 units (the performance ensemble must be approved by the department)
Applied Music: MUS 129/329 or X129/X329 for 4 units
Keyboard Proficiency: successful completion of the piano proficiency exam (equivalent to MUS 220B)
Music Forum: MUS 110 each semester in residence to a total of 7 units
Music Electives: select 9 units from MUS 393, 468I, 467, 471 and/or HIST 404I
Interdisciplinary Cultural Studies: select 6 units from one major discipline area and an additional 6 units in one or more areas. The areas can be, but are not limited, to: Anthropology, Black Studies, Asian and Asian-American Studies, Comparative World Literature and Classics, English and Literature, Film Studies, Geography, History, International Studies, Journalism, Philosophy, Political Science, Religious Studies, Romance, German, Russian Languages and Women's Studies
Final Exit Requirement: MUS 496 (must be taken by penultimate semester prior to graduation) and MUS 423C or D (proposal from MUS 496 required, faculty adviser approval).

## Bachelor of Music

The B.M. requires a minimum of 72 music units including the core and one area of specialization called an option. Options include Music History and Literature, Composition, Instrumental Music (Music Education), Choral-Vocal Music (Music Education) and Performance. Admission to the option is determined by audition and approval of the chair of the department. Application for admission to the option should be submitted no later than the beginning of the junior year, and significant progress must be demonstrated during the remaining two years. A Bachelor of Music degree requires a minimum of 132 units.

## Core Requirements - Music Education: Instrumental Music and Choral-Vocal Music Options

1. Music History and Literature: MUS 190* (section by advisement), 160, 360, 374, 490*, (* counts toward GE);
2. Music Theory: MUS 141 A-B, 142 A-B, 240, 341, 342;
3. Major Performance Organization: MUS 100/300, one unit each semester in residence;
4. MUS 110 (taken each semester in residency to a total of seven units);
5. Senior Recital: MUS 423A;
6. Keyboard Proficiency: successful completion of departmental piano proficiency examination (equivalent to MUS 220B).

## Option in Instrumental Music (code MUS_BM04) (132 units)

Completion of this option meets the subject matter competence requirement for the Single Subject Preliminary Credential in Music (code 170). In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Music teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Music Education Advisor early to plan their program.

The Music Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

MUS 129/329 or X129/329 (Music be taken for 8 units), 122A, 326, 125T, 382A, 382B, 386, 419, 425, 480, 482, 484,485 , elect 5 additional courses from MUS 125A, B, C, D, E and/or F.

## Option in Choral-Vocal Music (code MUS_BM01) (132 units)

Completion of this option meets the subject matter competence requirement for the Single Subject Preliminary Credential in Music (code 170). In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Music teachers are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may
also be completed as post-baccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the department's Music Education Advisor early to plan their program.

The Music Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

MUS 129/329 or X129/X329 (must be taken for 8 units); 386, 326, 125T, 419, 484, 485, 125F; elect 3 additional courses from MUS 125A, B, C, D, and/or E; 273A, 273B, 273C, 422, 426, 483A, and 483B.

## Core Requirements - Performance, Composition and History and Literature Options

1. Music History and Literature: MUS 190* (section by advisement), 160, 360, 374, 490*, (* counts toward GE);
2. Music Theory: MUS 141A-B, 142A-B, 240, 241, 341, 342;
3. Major Performance Organization: MUS 100/300, one unit each semester in residence (keyboard majors only take maximum 4 semesters);
4. MUS 110 (taken each semester in residency to a total of 7 units);
5. Keyboard Proficiency: successful completion of departmental piano proficiency examination (equivalent to MUS 220B) (piano majors excepted).

## Option in Performance (code MUS_BM05) (132 units)

## Requirements

Core: (MUS 129, 229/429, or X129, X229/X429) required each semester in residence with an achievement of senior level on major performance medium. Junior Recital (MUS 323) is required of all students. Senior Recital (MUS 423A) is required.
Piano: MUS 200 or 201/400 or 401 (5 units); 277, 427, 477A-B, 492A-B. Electives: four units chosen from the following courses: 273A, 273B, 273C, 326, 428, 434A-B, 436, 460 and 467.
String Instruments: MUS 200 or 201/400 or 401 (4 units); MUS 326, 425; choose six units from: 428, 460, 467, 471, and 493.
Wind Instruments: MUS 200 or 201/400 or 401 (4 units, 2 of which must be either woodwind or brass chamber music); MUS 326, 425; choose six units from: 428, 460, 467, 471, and 493.
Percussion: MUS 200 or 201/400 or 401 (4 units, 2 of which must be percussion ensemble); 326, 425; choose six units from: 428, 460, 467, 471, and 493.
Voice: MUS 273A, 273B, 273C, 326, 426, and 434A or 434B; choose one class from 428, 460, 467, 469, and 471; Choose an additional two units from MUS 436, 434A or 434B. Completion of Department of Music Foreign

Language Examination in French, German or Italian (may be waived by completion of 101B level course in French, German or Italian).
Opera: MUS 273A , 273B, 273C, 326, 436, 473, and THEA 262; two units of MUS 330 or 331 required as part of eight-unit activity requirement; choose two courses from the following: MUS 469, 3-unit theatre elective, 2-unit dance elective (DANC 111A or 113A). Completion of Department of Music Foreign Language Examination in French, German or Italian (may be waived by completion of 101B level course in French, German or Italian).
Jazz Studies: At least 4 units of Jazz Ensemble 201/401; MUS 271, 370, 371, 372, 393, 474. Students in jazz studies whose primary performance medium is woodwinds will be required to take a minimum of 6 units in saxophone, 2 units in clarinet, 2 units in flute, and 4 units consisting of further study in saxophone, clarinet or flute for a total of 14 units in applied music. Prior to the senior recital, each student must pass the UDSE on saxophone, clarinet and flute.

## Option in Composition (code MUS_BM02) (132 units)

## Requirements

MUS 129 or 129X to be taken each semester in residence until successful completion of the departmental upper-division screening examination in applied music (a minimum of 4 units is required). MUS 244A-B, 344 (to be taken concurrently with 329X), 423B, and 23 units to be chosen under departmental advisement as follows: 20 units to be selected from MUS 271, 329X (may be repeated multiple times), $370,371,372,411,441,442,443,444$ (repeatable, and taken concurrently with 329X), 455, 456, 457, 495F, 497, and THEA 449. At least 3 of the 20 units to be selected from MUS 370, 455, 456, and 457. Three units to be selected from MUS 200B, 326, 375, 393, 400B, 415, 422, 425, 447, and 474.

## Option in History and Literature (code MUS_BM03) (132 units)

## Reqirements

MUS 129 or X129 to be taken each semester in residence until successful completion of the departmental upper division screening examination in applied music (a minimum of four units is required); MUS 496 (Research Methods); 460; 423C; elect 14 units chosen from: MUS 363I, 364I, 375, 393, 428, 467, 468I, 469, 471, 478, 492, 493, 400R, 400 S (Collegium may be repeated). Completion of Department of Music Foreign Language Examination in French, German, or Italian (may be waived by completion of 101B level course in French, German, or Italian).

## Minor in Music (code MUS_UM01)

## Requirements

A minimum of 18 units, 9 of which must be upper division (300- and 400-level courses). Specific courses are required. A degree plan must be prepared in conference with the department advisor prior to beginning this program.

## GRADUATE PROGRAMS

## Master of Arts in Music (code MUS_MA01)

The Master of Arts degree in Music provides academic concentrations in Musicology, Music Theory, and Music Education.

## Prerequisites

1. A Bachelor of Arts degree with a major in music, a Bachelor of Music degree, or a bachelor's degree with a minimum of 24 units of upper division courses in music comparable to those required of a major in music at this University;
2. The student must request all institutions of higher learning attended to send official copies of transcripts directly to the Office of Admissions and Records and another set to the Department of Music Graduate Advisor. Transcripts presented to the Admissions Office by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to the Master of Arts in music program;
3. All applicants are required to complete the Department of Music Graduate Placement Examination before they register for courses applicable to the Master of Arts degree. (Under special circumstances, a student may take the examination during the first semester in which he or she is registered in courses applicable to the degree.) Applicants for all options of the M.A. degree must present samples of their scholarly writings in music for review by the Graduate faculty. Applicants for the musicology concentration must show evidence of reading and translation ability in one foreign language (French or German);
4. A GPA of 3.00 or better in upper division Music courses. Students who do not meet the 3.00 GPA requirement or specified balance within the required 24 units of upper division music but who possess outstanding or unusual qualifications that promise a significant contribution to the Master of Arts program may petition for a special review from the Department Graduate Committee.

## Advancement to Candidacy

The prerequisites for advancement to candidacy are the same as those for the Master of Music.

## Requirements

1. Completion of a minimum of 30 units of approved upper division and graduate courses with at least 24 units in the major. (The program may not include more than six units of transfer graduate credit);
2. Core Courses required by all Master of Arts students.13-15 units; MUS 696 (should be taken the first time it is offered during the student's residency); MUS 541; one course from MUS 561, 562, 563, 564, 565; MUS 698 (for 4-6 units, dependent upon concentration).
3. Additional courses for Musicology concentration: 3 units from MUS 561, 562, 563, 564, 565 (other than one taken in core); 6 units elected from MUS 547, 561, 562, 563, 564 , $565,566,569,571,576,578,592,593$ (not taken in core); 6 units of music electives (students in this concentration are strongly encouraged to elect theory as well as performance classes, especially Collegium Musicum and New Music Ensemble). Thesis is taken for 6 units in this concentration.
4. Additional courses for Music Theory concentration: MUS 540; 6 units from 541 (may be repeated), 547, 640 (may be repeated); 6 units of electives (students in this concentration are strongly encouraged to elect additional history, composition, and performance classes, especially New Music Ensemble and Collegium Musicum). Thesis is taken for 6 units in this concentration.
5. Additional courses for Music Education Concentration: MUS 581, 588; 4 units chosen from MUS 526, 554, 575, 580, 582, $585,587,594,595,680 ; 5-7$ units of electives (students in this concentration are encouraged to elect performance and conducting classes). Thesis is taken for 4-6 units in this concentration, dependent upon project.
6. An oral defense of the thesis, recital, or project (MUS 698).

## Master of Music Degree (code MUS_MM01)

The Master of Music degree program provides professional concentrations in Composition, Conducting-Instrumental, Conducting-Choral, Jazz Studies, Opera Performance and Instrumental/Vocal Performance.

## Prerequisites

1. A Bachelor of Music degree, or a Bachelor of Arts degree with a major in Music or a bachelor's degree, from an accredited institution, with a minimum of 24 upper division units of music comparable to those required at this University;
2. The student must request all institutions of higher learning attended to send official copies of transcripts directly to the Office of Admissions and Records and another set to the Department of Music Graduate Advisor. Transcripts presented to the Admissions Office by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to the Master of Music in music program;
3. All applicants are required to complete the Department of Music Graduate Placement Examination before they register for courses applicable to the Master of Music degree. (Under special circumstances, a student may take the examination during the first semester in which he or she is registered in courses applicable to the degree);
4. Criteria according to concentration:
A. Composition: submission and approval of a portfolio of representative original scores and evidence of baccalaureate-level competency as required in the Bachelor of Music Composition Option;
B. Conducting: successful completion of a conducting examination and approval by the conducting faculty;
C. Performance/Jazz Studies: Performance-Opera; Jazz Studies; and Instrumental/Vocal: an audition both at a performance level and with a repertory on an instrument or in voice acceptable to the faculty of the specific performance medium.
5. A GPA of 3.00 or better in upper division Music courses. Students who do not meet the 3.00 GPA requirement or specified balance within the required 24 units of upper division music but who possess outstanding or unusual qualifications that promise a significant contribution to the Master of Music program may petition for a special review from the Department Graduate Advisory Council.

## Advancement to Candidacy

1. Satisfy all the general University requirements, including fulfillment of the Graduation Writing Assessment Requirement (GWAR);
2. Remove all undergraduate deficiencies, which were determined by the departmental Graduate Placement Examination and/or the Dean of the College of the Arts;
3. Pass the Department of Music Qualifying Examinations;
4. Submit an approved project or thesis proposal, and a graduate degree program approved by the student's Thesis Committee, the Graduate Advisor, Department Chair, and the Dean of the College of the Arts;
5. GPA of 3.0 or higher.

## Requirements

1. General requirements for all majors: Completion of a minimum of 30 units of approved upper division and graduate courses with at least 24 units in the major. (The program may not include more than six units of transfer graduate credit);
2. Core curriculum (13 units) MUS 541, one course from MUS 561, 562, 563, 564, 565, 566 (Jazz Studies concentration only; MUS 513); MUS 696 (should be taken the first time it is offered during student's residency); MUS 698.
3. An oral defense of the thesis, recital, or project (MUS 698).

## Master of Music Concentrations

Composition: MUS 544 and MUS 545; 2 units of MUS 529X or 629X (taken concurrently with MUS 544 and MUS 545); 3 units selected from MUS 555, 556, 557; 6 units selected under advisement from MUS 510, 511, 512, 515, 516, 520, $522,525,529 \mathrm{X}, 540,543,545,547,555,556,557,574,597$, and 640; 2 units of electives selected under advisement.
Conducting - Instrumental: 2 units of MUS 500, 600, or 601; 4 units of 529 W or 629 W ; select by advisement two courses from MUS 520, 525, 680; $5-6$ units of electives selected by advisement.
Conducting - Choral: 2 units of MUS 500, 600 or 601; 4 units of 529 W or 629W; 519 (must be taken twice); 573, 575; 4 units of music electives by advisement.
Jazz Studies: 3 units selected from MUS 515, 574; 9 units selected from MUS 510, 511, 512, 516, 517, 525, 529 or 629 (section by advisement), 601A, 601B, 601C, 601D, or 601E; 2 units of electives.
Opera Performance: 4 units for MUS 529Q or 629Q; 2 units of MUS 530; 526,536,573; 5 units of electives chosen by advisement. Students in this concentration are strongly encouraged to take MUS 569.
Instrumental Performance: 4 units of MUS 500, 530, 600 or 601; 4 units of MUS 529 or 629 (section by advisement). Keyboard Specialization: 4 units of MUS 592A-B; 5 units of electives selected by advisement (MUS 577A-B, 600G, 600U strongly encouraged.) Other instrumental specializations: 9 units of electives chosen by advisement.
Vocal Performance: 2 units of MUS 500, 530, 600, or 601; 4 units of MUS 529 or 629 (section by advisement); MUS 573; choose 4 units from MUS 526, 534A, 534B under advisement; 5 units of electives chosen by advisement.
Teaching Credentials
Students seeking a degree in Music Education refer to the
Instrumental Music and Choral-Vocal Music options under B.M.
degree. All students entering the credential program after August 31, 2003 will be following the SB2042 credential program and should consult the Single Subject Credential Program requirements in this catalog. For further information consult with the Department of Music credential advisor.

## Music Performance

Opportunities to participate in various instrumental and vocal ensembles are available to all students regardless of major. Before enrolling in a performing group, students should apply to the director of the organization in which they wish to participate. Music performance courses may be repeated; up to 8 units of credit in MUS 100 or 300 may be counted toward a bachelor's degree. Simultaneous enrollment in more than one organization is permitted.

## Courses (MUS)

## LOWER DIVISION

100. Major Performance Organization (1)

Prerequisite: Consent of instructor.
May be repeated to maximum of 8 units. (3-5 hrs reh.)
A. Concert Band
B. Symphonic Band
C. Wind Symphony
D. Women's Chorus
E. Forty-Niner Chorus
F. University Choir
G. Chamber Singers
J. Symphony Orchestra
110. Music Forum (1)

Recital attendance and performance on principal instrument or voice. Required of undergraduate music majors each semester, except for semester enrolled in MUS 423A, for maximum of 7 units. Credit/No Credit grading only.

## 119. Group Piano for the Non-Major (1)

Beginning level repertoire and technical exercises for dexterity emphasized. Simple chord progressions and basic improvisational skills taught. Knowledge of reading music preferred but not required. May be repeated to maximum of 2 units. (2 hrs lab)
120A-B. Class Piano $(1,1)$
Technique, tone production, rhythm, sight-reading, interpretation and keyboard facility.
(2 hrs lab)

## 122A-B. Class Voice (1-1)

Fundamental techniques of singing, tone production, voice placement, breathing, diction, repertoire, and song interpretation. (2 hrs lab)

## 125. Instrumental Methods (1)

Class instruction in applied music and technology. Limited to music majors and minors.
Letter grade only (A-F). (2 hrs lab)
A. Single Reeds/Flute
B. Double Reeds
C. Brass
D. Percussion
E. Strings
F. Guitar
R. Basic Musical Instrument Repair
T. Music Technology

## 129. Individual Instruction for Music Majors (1)

Open to music majors only. Private lessons in major performance medium. Application must be made to Chair of Department of Music during semester prior to registration. Registration subject to departmental approval.
May be repeated to maximum of 4 units.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
130. Opera (1)

Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre; solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
(3 hrs or more lab)
131. Music Theater (1)

Prerequisite: Consent of Instructor.
Performance of musical theater works and operas. Additional areas include stage management, scheduling, costuming, and set construction.
(2 hrs reh.)

## 140. Basic Music Theory (2)

Notation and reading of music. Written, aural and performance experience with scales, intervals, chords, and melodies. Provides essential background for more advanced courses in music theory. Course fee required.

## 141A. Musicianship I (2)

Corequisite: MUS 142A.
Study of basic skills in music reading, ear training, sight-singing, melodic and harmonic dictation. Computer assisted instruction is available.
Course fee required.

## 141B. Musicianship II (2)

Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B.

Study of skills in music reading, ear training, sight-singing, and melodic and harmonic dictation through modulation and chromatic harmony. Computer assisted instruction is available.
Course fee required.
142A. Harmony I (3)
Corequisite: MUS 141A.
Beginning principles of part-writing, to include modal counterpoint, concepts of chord progression, chord prolongation, and analysis in diatonic and chromatic tonal music.

## 142B. Harmony II (3)

Prerequisites: MUS 141A \& 142A or satisfactory score in theory placement test. Corequisite: MUS 141B.
Principles of part-writing, to include modal counterpoint, concepts of chord progression, chord prolongation, and analysis in diatonic and chromatic tonal music.

## 160. History of Music: Baroque/Classic (3)

Prerequisite: MUS 190.
Chronological survey of music and musical styles from 1600 to
1750 with selected readings, recordings, and scores for in-depth study. Primarily for music majors and minors, but open to others who can read music.
Letter grade only (A-F).

## 180. Exploring Music (3)

Fundamentals of music and essentials of music listening. Basic performance skills in singing and playing music. Not open for credit to music majors.
Letter grade only (A-F).

## 190. Listener's Approach to Music (3)

Prerequisites or corequisites: ENGL 100 or another General Education Foundation course.
Non-technical course open to all students. Materials, forms and styles of music with extensive listening.

## 200. Chamber Music (1)

Prerequisite: Consent of instructor.
May be repeated to maximum of 8 units. (2 hrs or more rehearsal)
A. Brass Ensemble
B. New Music Ensemble
C. String Ensemble
D. University String Quartet
E. University Wind Quintet
F. University Brass Quintet
G. Piano Ensemble
K. Performance
L. Brass Chamber Music
M. Percussion Ensemble
N. Steel Drum Orchestra
O. Woodwind Chamber Music
P. String Chamber Music
R. Collegium-Vocal
S. Collegium-Instrumental
T. Saxophone Ensemble
U. Directed Accompanying
V. Studio Orchestra
X. World Percussion Group
Y. World/Traditional Music Performance
Z. University Percussion Quartet

## 201. Jazz Ensemble (1)

Prerequisite: Consent of instructor.
May be repeated for maximum of 8 units with different topics in same semester. (3 hours or more rehearsal)
A. Jazz Ensemble I
B. Jazz Ensemble II
C. Jazz Combos D. Vocal Jazz Ensemble I E. Vocal Jazz Ensemble II

220A-B. Class Piano (1-1)
Continuation of 120A-B.
(2 hours laboratory.)
229. Individual Instruction for the Music Major (2)

Open to performance majors only.
Private lessons in major performance medium. Application must be made to Chair of Department of Music during semester prior to registration. Registration subject to departmental approval.
May be repeated to maximum of 8 units.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone

## 240. Advanced Musicianship (2)

Prerequisites: MUS 141B and 142B or satisfactory score on theory placement test.
Study of advanced skills in ear training and sight singing.
Letter grade only (A-F). Course fee \$15.00.

## 241. Tonal Counterpoint (3)

Prerequisites: MUS 141B and 142B.
Analysis and writing of canons, two-part inventions, and fugues.
244A. Composition Workshop I (2)
Prerequisites: MUS 141B and 142B and consent of instructor.
Survey of contemporary techniques in composition, music notation and contemporary literature. Short compositions in workshop setting for beginning composers.
Letter grade only (A-F).
244B. Composition Workshop II (2)
Prerequisites: MUS 244A and consent of instructor.
Survey of contemporary techniques in composition, music notation and contemporary literature. Short compositions in workshop setting for beginning composers.
Letter grade only (A-F).
271. Improvisation Techniques I (2)

Basic techniques in improvisation, beginning with simple question and answer phrases and progressing to extended solos. Detailed and applied knowledge of chord progressions.
(1 hr lec, 2 hrs lab)
273A. Diction for Singers (2)
Prerequisite: Consent of Instructor.
Focus on IPA, International Phonetic Alphabet, and its application in English and Italian. Repertoire focuses on correct pronunciation of art song, choral repertoire, and opera arias.
Letter grade only (A-F).

## 273B. French Diction for Singers (1)

Prerequisite: MUS 273A.
Focus on mastering application of International Phonetic Alphabet with phonetic transliteration skills to French language. Content focuses on correct pronunciation of art songs, choral repertoire, and opera arias. Letter grade only (A-F).

## 273C. German Diction for Singers (1)

Prerequisites: MUS 273A.
Focus on mastering application of International Phonetic Alphabet with phonetic transliteration skills to German language. Content focuses on correct pronunciation of art song, choral repertoire, and opera aria.
Letter grade only (A-F).

## 277. Keyboard Skills (2)

Open to Music majors only.
Development of basic technical skills at the piano, including sight-reading, harmonization at the keyboard, chord and scale identification, score analysis, and beginning ensemble playing.

## 290. Popular Music in America (3)

Prerequisite: Completion of GE Foundation requirements.
Artistic and socio-economic influences on popular music in America from 1840 to present. Special consideration of impact on "pop" music of various cultures and ethnic groups within U.S.
Not open for credit to Music majors.

## UPPER DIVISION

## 300. Major Performance Organization (1)

Prerequisite: Consent of instructor.
May be repeated to maximum of 8 units. (3-5 hrs reh.)
A. Concert Band
B. Symphonic Band
C. Wind Symphony
D. Women's Chorus
E. Forty-Niner Chorus
F. University Choir
G. Chamber Singers
J. Symphony Orchestra
K. Performance

## 323. Junior Recital (1)

Prerequisite: MUS 241.
Recital of standard literature for solo instrument or voice in performance option of Bachelor of Music degree. Enrollment restricted to music majors passing departmental qualifying examination.

## 326. Conducting (2)

Prerequisites: Consent of instructor.
Introduction to principles and techniques of conducting and ensemble organization. Study and interpretation of instrumental and choral repertoire using class as laboratory ensemble. Letter grade only (A-F). (1 hour lecture, 2 hours lab).

## 327. Choral Organization and Rehearsal Techniques (2)

Rehearsal techniques for the choral musician as well as study of audition techniques, choral tone development, diction, and score preparation as well as organization and management of choral programs.

## 329. Individual Instruction for Music Majors (1)

Prerequisite: Successful completion of departmental Upper Division Screening Exam on applied instrument or voice.
Open to music majors only. Private lessons in major performance medium. Application must be made to chair of Department of Music during semester prior to registration. Registration subject to departmental approval.
May be repeated to maximum of 10 units.

## A. Baritone/Tuba

B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition
Y. Jazz Writing/Arranging

## 330. Opera (1)

Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre: solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
May be repeated to maximum of 4 units, only 2 of which may count toward degree. (3 hrs or more reh.)

## 331. Music Theater (1)

Prerequisite: Consent of Instructor.
Performance of musical theater works and operas. Additional areas include stage management, scheduling, costuming, and set construction.
May be repeated to maximum of 4 units. (2 hrs reh.)

## 341. Musical Form and Analysis (3)

Prerequisites: MUS 241 or consent of instructor.
Intensive analysis of the historical development of form in tonal music from the early Baroque through the early 20th century.

## 342. Materials of Modern Music (3)

Prerequisite: MUS 341.
Continuation of intensive analysis of representative compositions of 20th Century with emphasis on writing in selected 20th Century styles.

## 344. Composition (2)

Prerequisites: MUS 244A-B; Corequisite MUS 329X.
Further exploration of contemporary techniques in composition, music aesthetics and contemporary literature.
Letter grade only (A-F).
360. History of Music: Medieval/Renaissance (3)

Prerequisites: MUS 190, 160 or consent of instructor.
Chronological survey of music and musical readings, recordings, and scores for in-depth study. Primarily for music majors and minors, but open to others who read music.
Letter grade only (A-F).

## 363I. Music and the Visual Arts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of following courses: MUS 190 or ART 110.
Explores interrelationships between visual arts and music in Western culture by comparing artistic methodologies employed by important visual artists to those employed by important composers of art music from 18th through 20th Centuries.

## 364I. Music and the Temporal Arts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of following courses: MUS 190, DANC 110, THEA 122, or ENGL 180.

Study of interrelationships of temporal arts (works of poets, writers, choreographers, and playwrights) and music of important composers of 18th through 20th Centuries.

## 370. Introduction to Music Technology (3)

Introduction to principles of sound recording, sound production, sound reinforcement, MIDI, and electronic music.

## 371. Improvisation Techniques II (2)

Continuation of MUS 271.
(1 hr lec, 2 hrs lab)

## 372. Jazz Harmony and Analysis (3)

Prerequisite: MUS 142B.
Basic techniques of writing and analyzing jazz harmony.

## 374. History of Music: Nineteenth/Twentieth Centuries

 (3)Prerequisites: MUS 190, 160 or consent of instructor.
Chronological survey of music and musical styles from 1800 to present, with selected readings, recordings, and scores for indepth study. Primarily for music majors and minors, but open to others who read music.
Letter grade only (A-F).

## 375. Avant-Garde: Radical Change in Art and Music in the 20th Century (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of major "modern" or avant-garde styles and movements in art and music in Europe and America from about 1900 to present. Course aims not only to characterize these styles and their practitioners but to relate them to major changes in modern society.

## 382A. Instrumental Ensemble Lab (3)

Prerequisite: Three instrumental methods courses from MUS 125 series.
Examination of organizational procedures for beginning/ intermediate band and instructional techniques relating to Grade I-II music literature, investigation of contemporary music methodologies, and experience conducting ensemble class sessions. Performance on secondary instruments is required.

## 382B. Beginning Jazz Ensemble Lab (1)

Examination of organizational and instructional techniques relating to beginning jazz ensemble performance, as well as performance on secondary instruments and conducting ensemble class sessions.
(2 hrs lab)
385. Children's Music (3)

Prerequisite: MUS 180.
Introduction to general, vocal, and instrumental musical experiences appropriate for children in grades K-6. Includes participation in singing/listening activities and experience using simple melodic, rhythmic, and harmonic instruments appropriate to age/development of children. Intended for Liberal Studies majors. Others by consent of instructor.

## 386. Introduction to Music Education (3)

Provides philosophical and pedagogical theory required for design and execution of appropriate music instructional programs at general classroom, middle school, and secondary levels. Includes MIDI, sequencing, and tutorial/managerial software in music classroom/rehearsal setting.
Letter grade only (A-F).

## 393. Jazz, An American Music (3)

Prerequisite: Completion of 13 unit General Education Foundation requirement and upper division standing.
Course presents development of various musical styles, forms, improvisations, significant musical concepts and major figures in past, present and future of jazz, an American music.

## 400. Chamber Music (1)

Prerequisite: Consent of instructor.
May be repeated to maximum of 8 units. (2 hrs rehearsal)
A. Brass Ensemble
B. New Music Ensemble
C. String Ensemble
D. University String Quartet
E. University Wind Quintet
F. University Brass Quintet
G. Piano Ensemble
K. Performance
L. Brass Chamber Music
M. Percussion Ensemble
N. Steel Drum Orchestra
O. Woodwind Chamber Music
P. String Chamber Music
R. Collegium-Vocal
S. Collegium-Instremental
T. Saxophone Ensemble
U. Directed Accompaning
V. Studio Orchestra
X. World Percussion Group
Y. World/Traditional Music Performance
Z. University Percussion Quartet
401. Jazz Ensemble (1)

Prerequisite: Consent of instructor.
May be repeated for maximum of 8 units with different topics in same semester. (3 hours or more rehearsal)
A. Jazz Ensemble I
B. Jazz Ensemble II
C. Jazz Combos
D. Vocal Jazz Ensemble I
E. Vocal Jazz Ensemble II
411./511. Film Scoring (3)

Prerequisites: MUS 372, 474, or consent of instructor.
Review development of various musical styles, forms, genres, and significant musical concepts and problems in creating music for films. Includes film mechanics and emotional and psychological requirements of music underscoring. Students create original music for film cues.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 415./515. Advanced Concepts in Jazz Theory (3)

Prerequisites: MUS 372, 393, 474, or consent of instructor.
Reviews development of musical styles, forms, genres, significant musical concepts and problems. Theoretical work emphasizes detailed study of harmony, form, idioms, combination of idioms, and use of experimental materials. Study will include detailed analysis of major modern jazz artists.
Letter grade only (A-F).

## 416./516. Pedagogy of Improvisation (3)

Prerequisites: MUS 371, 372, 393, 474, or consent of instructor (students must demonstrate substantial skills in jazz improvisation).
Survey of literature and teaching methodologies associated with jazz improvisation. Information on musical styles and concepts as well as technique, harmony, forms, digital patterns and scales, combination of idioms, use of experimental material, transcriptions, and texts.
Letter grade only (A-F).

## 417./517. Business of Music (3)

Overview of business and artistic process of music industry. Includes popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Also includes recent changes in digital recording, broadcasting technology, copyright laws, and legal issues.
Letter grade only (A-F).

## 419./519. Choral Master Class (1)

Prerequisites: Consent of instructor.
Advanced conducting laboratory with emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices.
Letter grade only (A-F). May be repeated to maximum of 4 units.
422./522. Advanced Choral Conducting and Literature (2)

Prerequisites: MUS 326 and 327 or consent of instructor.
Choral technique, style, and interpretation; choral schools and composers since 16 th century; contemporary secular and sacred choral compositions. Class used as laboratory group.
(1 hr lec, 2 hr lab )

## 423A. Senior Recital (1)

Prerequisites: MUS 341, 342. Corequisites: Concurrent enrollment in MUS 329 or 429.
Individual recital of standard literature for solo instrument or voice. Enrollment restricted to Music majors passing departmental qualifying examination.
Letter grade only (A-F).

## 423B. Senior Composition Recital (1)

Prerequisites: Senior standing and consent of instructor.
Individual recital of original music written during composition studies while in program. Enrollment restricted to Bachelor of Music composition majors passing departmental qualifying examination.
Letter grade only (A-F).
423C. Senior Thesis (1)
Prerequisites: MUS 360, 374, 496 and consent of Director of Music History.
In-depth research paper representing systematic study of significant problem, style, or repertory. Finished product must show thorough command of relevant literature, critical thinking and writing, and original approach. Proposal (outline, abstract, and bibliography) must be submitted for topic approval.
Letter grade only (A-F).

## 423D. Senior Project (1)

Prerequisites: Senior standing and consent of instructor.
Final project or internship with music or arts organization subject to approval of supervising faculty member.
Letter grade only (A-F).

## 424./524. Orchestral Literature: Performance and Styles

 (2)Prerequisites: Consent of Instructor.
Lecture/Activity class that introduces students to important examples of the standard orchestral repertoire. Students will perform in an orchestral sectional for Brass and/or Woodwinds or strings.
Letter grade only (A-F). Repeatable to 8 units in different semesters.

## 425./525. Advanced Instrumental Conducting (2)

Prerequisite: MUS 326 or consent of instructor.
Principles and techniques of instrumental conducting and organization. Study and interpretation of instrumental literature using class laboratory.
( 1 hr lec. 2 hrs lab)
426./526. Vocal Development (2)

Prerequisite: Consent of instructor.
Theory and techniques of teaching voice.

## *427. Piano Pedagogy (3)

Study of philosophies, psychology, and piano teaching methods for children, as well as intermediate and advanced level students.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## *428. Seminar in Musical Styles (3)

Prerequisites: MUS 160, 341, 360, 374.
Study development of musical styles, forms, genres, and significant musical concepts and problems. For Music majors only.

## 429. Individual Instruction for Music Majors (2)

Prerequisite: Successful Completion of Departmental Upper Division Screening Exam on applied instrument or voice.
Private lessons in major performance medium. Application must be made to chair of Department of Music during semester prior to registration. Registration is subject to departmental approval.
May be repeated to maximum of 10 units.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition

## 434A./534A. German Song Repertoire (2)

Prerequisites: MUS 273A, C.
Preparation of German song literature for performance, with coaching in language, musical styles, and vocal and accompanying techniques.
Letter grade only (A-F).

## 434B./534B. French Song Repertoire (2)

Prerequisites: MUS 273A, B.
Preparation of French song literature for performance, with coaching in language, musical styles, and vocal and accompanying techniques.
Letter grade only (A-F).

## 436./536. Opera Repertoire (2)

Prerequisites: MUS 273B,C or consent of instructor. Two years of voice study, completion of Department of Music Foreign Language Proficiency Exam (may be waived upon successful completion of 101B level course in French, German, or Italian).
Preparation of varied portfolio of voice-appropriate selections from standard operatic repertoire in English, French, German and Italian. Include translation, lyric diction, ornamentation, tools for role study, rehearsal and audition techniques.
Letter grade only (A-F).
*441. Studies in Musical Analysis (3)
Prerequisites: MUS 341, 342.
Intensive individual and class analysis of representative compositions of various periods and styles.
442. Orchestration (3)

Prerequisite: MUS 241.
Range, characteristics, and transpositions of all standard orchestral instruments by writing and/or transcribing music. Preparation and proofreading of scores and parts. Readings of student assignments.

## 443./543. Advanced Orchestration (3)

Prerequisite: MUS 442.
Techniques of arranging, transcribing, and composing for standard chamber ensembles, chorus and orchestra. Readings of student orchestrations will be included whenever possible.

## 444. Advanced Composition (2)

Prerequisites: MUS 344, Corequisite: 329X.
Advanced studies in music composition, music aesthetics, and listening methodologies. Letter grade only (A-F). May be repeated to maximum of 4 units in different semesters.
446. Advanced Topics in Listening and Analysis (3)

Prerequisites: MUS 344 or consent of instructor.
Study of traditional and contemporary music literature and analytical methods, from structural linear analysis to post-modern listening models. Includes readings in music aesthetics, critical theory, and intensive score analysis.
Letter grade only (A-F).

## 447./547. Musical Systems of World (3)

Prerequisites: MUS 342 or consent of instructor.
Open to music majors and minors. Study of theoretical systems (pitch, scales, rhythmic treatment, textures, forms) of selected musical cultures of world.
Letter grade only (A-F).
454./554. School, Society, and Music Education (3)

Historical, in-depth examination of direction and influence of music education within America's general education curriculum. Focus on how music education has reflected and addressed changing needs of schooling and society from singing school movement and Jeffersonian era to today.
Letter grade only (A-F).

## 455./555. Computers and Sound (3)

Introduction to software for sound synthesis, sequencing, digital audio, and sound processing. Listening and analysis of contemporary electronic music literature also emphasized. Course culminates in creative composition or research project.
Letter grade only (A-F).

## 456./556. Sound Design (3)

Introduces students to principles of composition and analysis of electro-acoustic media through application of music software, sampling, digital media, digital signal processing, and psychoacoustics. Culminates in collaborative creative project involving video, web, or live theater.
Letter grade only (A-F).

## 457./557. Composition with Digital Media (3)

Computer created projects that combine visual media (including web-based), and electronic music. Analysis of interdisciplinary and mixed media works, collaborative work in electronic arts and readings in critical theory and multimedia.
Letter grade only (A-F).
460./566. Studies in Performance Practices (3)

Prerequisites: MUS 160, 360 or consent of instructor.
Surveys issues of historical performance in vocal and instrumental music, focusing on primary sources. Spans various genres and eras.
467./576. Studies in Gender and Music (3)

Prerequisite: MUS 374 or consent of instructor.
Surveys issues surrounding women as musicians (performers and composers), comparative studies of role men and women have played in music, and feminist criticism of music.
Letter grade only (A-F).
468I. Music and Film (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of following courses: MUS 190, FEA 310, THEA 122, ENGL 180, or ART 110.
Study of interrelationships of dramatic, visual, and musical arts in film, with special emphasis on role of music.

## 469./569. Music of the Theater (3)

Prerequisites: MUS 374.
History and development of music for stage from 1600 to present, its conventions and styles. Analysis of representative masterworks.

## 471./571. Studies in Ethnomusicology (3)

Prerequisites: MUS 374 or consent of instructor.
Emphasis on theory and methodology of enthnomusicological study. Investigation of music of particular non-western or popular cultures. For music majors only.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 473./573. Advanced Diction for Singers (2)

Prerequisites: MUS 273A, 273B, or consent of instructor.
Advanced principles of diction and International Phonetic
Alphabet (IPA) applied to Iyric Italian, French, German, and
English repertoire; intended for Senior and Graduate level vocalists and choral conductors. Special studies possible in other languages.
Letter grade only (A-F).
474./574. Commercial Arranging (3)

Prerequisite: MUS 372 or consent of instructor.
Arranging and scoring of various types of commercial ensembles in styles demanded by contemporary performance practices.

## 477A-B./577A-B. Piano Accompanying (2-2)

Prerequisite: MUS 277 or consent of instructor.
Instruction and training in techniques of accompanying singers, instrumentalists, and ensembles.
(Lec. 1 hr, act. 3 hrs)

## 478./578. Musical Instruments of World (3)

Prerequisites: MUS 360 or consent of instructor.
Open to music majors and minors. Study of origins and history of musical instruments in western and non-western world, with emphasis on cross-cultural influences, iconographical and organological issues, and scientific classification.
Letter grade only (A-F).

## 480./580. Marching Band Techniques (2)

Marching fundamentals, charting formations, precision drills, parade techniques and half-time pageantry.

## 482./582. Instrumental Rehearsal Techniques and Literature (3)

Procedures for organization and development of instrumental programs and literature for performing groups.

## 483A./583A. Choral Repertoire I (2)

Examination of five genres of choral repertoire: Mass, motet, cantata, oratorio, and madrigal. Traditional and contemporary choral repertoire for public school teachers and church choir directors.
Letter grade only (A-F).

## 483B./583B. Choral Repertoire II (2)

Survey of choral and choral/orchestral works from Renaissance to 20th century.
Letter grade only (A-F).
484. Arranging (2)

Prerequisites: MUS 142B and 125T.
Arranging techniques for choir, band, and orchestra in grades K-12.
Letter grade only (A-F).
485./585. Music for the Elementary Child (3)

Prerequisite: MUS 341
Examination of approaches to developing musical and aesthetic sensitivities in children. Students create vocal, instrumental and listening experiences appropriate for use in grades K-6. Intended for music education majors. Others by consent of instructor.

## 487./587. Microcomputers and Music Learning (3)

Prerequisites: MUS 125T or consent of instructor.
Music education applications of microcomputers, including: existing instructional software and hardware, administrative applications, criteria for software and hardware selection, MIDI music composition, and contemporary issues and trends.

## 490. Introduction to Music Cultures (3)

Prerequisite: Completion of GE Foundation requirements.
Music of various world cultures and ethnic groups representative of diversity of United States. Includes music's function, social organization including age and gender roles, distinctive characteristics, types of instruments, and cultural performance standards.

## 492A./592A. Studies in Keyboard Music (2)

Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord,
harpsichord, piano, and organ from 13th century to Beethoven.

## 492B./592B. Studies in Keyboard Music (2)

Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from Beethoven to present.

## 493./593. Studies in Instrumental Music (3)

Prerequisite: MUS 374
Seminar in instrumental music spanning at least two epochs of music history and covering at minimum, two of five categories: solo sonata (excluding keyboard), chamber music, orchestral/symphonic, wind ensemble/band, and orchestral/concerto.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 494./594. Music Learning Theory (3)

Investigates research and resulting methodology developed by Dr. Edwin Gordon as to how children learn music, including nature of music aptitude, Music Learning Theory Curriculum, incorporating Music Learning Theory in music classroom and rehearsal settings, and evaluation and assessment of student learning.
Letter grade only (A-F).
*495. Special Topics in Music (3)
Prerequisite: Consent of instructor.
Topics of current interest in various fields of music selected for special presentation and development.
Topics will be announced in Schedule of Classes. May be repeated to maximum of 6 units.

## A. Kodaly Concept I: Methodology, Solfege and Conducting

Prerequisite: Consent of Instructor. Corequisite: MUS 495B.
Examination of Kodaly approach to music education with particular emphasis on relevance and application to American music education. Special emphasis is given to sequence of concepts for levels K-3. Includes Solfege, folk song analysis and collection, conducting, games and movement.

## B. Kodaly Concept II: Methodology, Solfege and Conducting Corequisite: 495A.

Examination of Kodaly approach to music education with particular emphasis on relevance and application to American music education. Special emphasis is given to sequence of concepts for levels K-3. Includes Solfege, folk song analysis and collection, conducting, games and movement.

## F. Music and Dance Collaboration (3)

Corequisite: Consent of Instructor.
Music and dance students create new works for music and dance. Collaborations may take form of improvisational, semiimprovisational, or through-composed creations developed by two dancers and two musicians working in group setting.

## 496./696. Research Methods (3)

Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as introduction to graduate study in music. Required of all MA and MM candidates in music.

## 497. Special Topics in Music Composition (3)

Prerequisite: Consent of instructor.
Topics of current interest in field of music composition selected for special presentation and development.
Topics will be announced in Schedule of Classes. Letter grade only (A-F).

## A. Songwriting and Analysis

B. Musical Theater Project
C. Advanced Film Scoring Project
D. Contemporary and Computer Music Notation
E. Composition with Interactive Technologies
*499. Special Studies (1-3)
Prerequisite: Consent of instructor.
Individual research or group investigation of selected topics.
May be repeated to maximum of 6 units.

## GRADUATE LEVEL

500. Major Performance Organization (1)

Prerequisite: Consent of instructor.
Letter grade only (A-F). May be repeated to maximum of 8 units. (3-5 hrs reh.)
A. Concert Band
B. Symphonic Band
C. Wind Symphony
D. Women's Chorus
E. Forty-Niner Chorus
F. University Choir
G. Chamber Singers
J. Symphony Orchestra
K. Performance

## 510. Improvisation Styles and Literature (3)

Prerequisites: MUS 372, 393, 474, or consent of instructor.
Explores various musical styles, forms, genres, and significant musical concepts in Jazz Improvisation. Theoretical work emphasizes detailed study of harmonic and linear forms, digital patterns and scales, combination of idioms, patterns, use of experimental material, transcriptions and historic implications.
Letter grade only (A-F).

## 511./411. Film Scoring (3)

Prerequisites: MUS 372, 474, or consent of instructor.
Review development of various musical styles, forms, genres, and significant musical concepts and problems in creating music for films. Includes film mechanics and emotional and psychological requirements of music underscoring. Students create original music for film cues.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 512. Advanced Techniques in Jazz Composition (3)

Prerequisites: MUS 372, 474, or consent of instructor.
Explores musical styles, forms, genres, and significant musical techniques and developments in contemporary jazz composition. Will include study of major contemporary jazz works with writing assignments based on those styles.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 513. History and Analysis of Jazz Styles (3)

Prerequisites: MUS 372, 393, or consent of instructor.
Explores development of various musical styles, forms, genres, and significant musical concepts and problems in Jazz History.
Letter grade only (A-F).

## 515./415. Advanced Concepts in Jazz Theory (3)

Prerequisites: MUS 372, 393, 474, or consent of instructor.
Reviews development of musical styles, forms, genres, significant musical concepts and problems. Theoretical work emphasizes detailed study of harmony, form, idioms, combination of idioms, and use of experimental materials. Study will include detailed analysis of major modern jazz artists.
Letter grade only (A-F).

## 516./416. Pedagogy of Improvisation (3)

Prerequisites: MUS 371, 372, 393, 474, or consent of instructor (students must demonstrate substantial skills in jazz improvisation).
Survey of literature and teaching methodologies associated with jazz improvisation. Information on musical styles and concepts as well as technique, harmony, forms, digital patterns and scales, combination of idioms, use of experimental material, transcriptions, and texts.
Letter grade only (A-F).

## 517./417. Business of Music (3)

Overview of business and artistic process of music industry. Includes popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Also includes recent changes in digital recording, broadcasting technology, copyright laws, and legal issues.
Letter grade only (A-F).

## 519./419. Choral Master Class (1)

Prerequisite: Consent of instructor.
Advanced conducting laboratory with emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices.
Letter grade only (A-F). May be repeated to a maximum of 4 units.
520. Graduate Conducting Seminar (3)

Prerequisite: Consent of instructor.
Advanced baton technique, interpretation, securing proper sound, organizing routine, and program making.
Letter grade only (A-F).
522./422. Advanced Choral Conducting and Literature (2)

Prerequisites: MUS 326 and 327 or consent of instructor.
Choral technique, style, and interpretation; choral schools and composers since 16th century; contemporary secular and sacred choral compositions. Class used as laboratory group.
Letter grade only (A-F). ( $1 \mathrm{hr} \mathrm{lec.}$,2 hrs lab)
524./424. Orchestral Literature: Performance and Styles (2)

Prerequisites: Consent of Instructor.
Lecture/Activity class that introduces students to important examples of the standard orchestral repertoire. Students will perform in an orchestral sectional for Brass and/or Woodwinds or strings.
Letter grade only (A-F). Repeatable to 8 units in different semesters.

## 525./425. Advanced Instrumental Conducting (2)

Prerequisite: MUS 326 or consent of instructor.
Principles and techniques of instrumental conducting and organization.
Study and interpretation of instrumental literature using class laboratory.
(1 hr lec. 2 hrs lab)

## 526./426. Vocal Development (2)

Prerequisite: Consent of instructor.
Theory and techniques of teaching voice.
Letter grade only (A-F).

## 529. Individual Instruction for Music Majors (1)

Open to graduate students in music only. Private lessons in major performance medium. Application must be made to Graduate Advisor of Department of Music during semester prior to registration. Registration is subject to departmental approval.

May be repeated to maximum of 10 units.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition
Y. Jazz Writing/Arranging
530. Opera (1)

Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre; solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
Letter grade only (A-F). May be repeated to maximum of 4 units. (3 hrs or more reh.)

## 531. Music Theater (1)

Prerequisite: Consent of Instructor.
Performance of musical theater works and operas. Include stage management, scheduling, costuming, and set construction.
(2 hrs reh.)

## 534A./434A. German Song Repertoire (2)

Prerequisites: MUS 273A, C.
Preparation of German song literature for performance, with coaching in language, musical styles, as well as vocal and accompanying techniques.
Letter grade only (A-F).

## 534B./434B. French Song Repertoire (2)

Prerequisites: MUS 273A, B.
Preparation of French song literature for performance, with coaching in language, musical styles, as well as vocal and accompanying techniques.
Letter grade only (A-F).

## 536./436. Opera Repertoire (2)

Prerequisites: MUS 273B,C or consent of instructor.
Preparation of varied portfolio of voice-appropriate selections from standard operatic repertoire in English, French, German and Italian. Include translation, lyric diction, ornamentation, tools for role study, rehearsal and audition techniques.
Letter grade only (A-F). (4 hrs lab)
540. Music Theory Pedagogy (3)

Prerequisites: Placement in MUS 541 based on Graduate Theory Placement Exam, or successful completion of MUS 441.
Survey of curricular options, analysis goals, written-and aural-skills concerns, and general pedagogical philosophies in teaching of music theory. Study role context-based goals and objectives in determining teaching and assessment materials. Examination of reciprocal relationship between thinking and listening.
Letter grade only (A-F).

## 541. Seminar in Musical Analysis (3)

Analysis of forms and techniques of musical compositions in various genres and styles.
May be repeated to maximum of 6 units.
542. Seminar in Advanced Musical Analysis (3)

Advanced analysis in variable topics of forms and techniques of musical compositions.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 543./443. Advanced Orchestration (3)

Prerequisite: MUS 442.
Techniques of arranging, transcribing, and composing for standard chamber ensembles, chorus and orchestra. Readings of student orchestrations will be included whenever possible.

## 544. Graduate Composition I (2)

Corequisite: MUS 529X.
Study of contemporary techniques in composition, music aesthetics, and contemporary literature.
Letter grade only (A-F).
545. Graduate Composition II (2)

Prerequisite: MUS 544. Corequisite: MUS 529X.
Advanced studies in musical composition, music aesthetics, and listening methodologies.
Letter grade only (A-F). Course may be repeated to maximum of 4 units in different semesters.

## 547./447. Musical Systems of World (3)

Prerequisites: MUS 342 or consent of instructor.
Open to music majors and minors. Study of theoretical systems (pitch, scales, rhythmic treatment, textures, forms) of selected musical cultures of world.
Letter grade only (A-F).

## 554./454. School, Society, and Music Education (3)

Historical, in-depth examination of direction and influence of music education within America's general education curriculum. Focus on how music education has reflected and addressed changing needs of schooling and society from singing school movement and Jeffersonian era to today.
Letter grade only (A-F).

## 555./455. Computers and Sound (3)

Introduces students to music software for sound synthesis, sequencing, digital audio, and sound processing. Listening and analysis of contemporary electronic music literature is also emphasized. Course culminates in creative composition or research project.
Letter grade only (A-F).

## 556./456. Sound Design (3)

Introduces students to principles of composition and analysis of electro-acoustic media through application of music software, sampling, digital media, digital signal processing, and psychoacoustics. Course culminates in collaborative creative project involving video, web, or live theater.
Letter grade only (A-F).

## 557./457. Composition with Digital Media (3)

Computer created projects that combine visual media (including web-based), and electronic music. Analysis of interdisciplinary and mixed media works, collaborative work in electronic arts and readings in critical theory and multimedia.
Letter grade only (A-F).

## 561. Seminar in Medieval and Renaissance Music (3)

Prerequisite: MUS 360, or consent of instructor.
Topics in development of musical styles and genres from Gregorian Chant through late sixteenth-century sacred and secular polyphony. Letter grade only (A-F). May be repeated to maximum of 6 units.

## 562. Seminar In Baroque Music (3)

Prerequisites: MUS 341, 360, or consent of instructor.
Stylistic analysis and inquiry into cultural background of composers and genres.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 563. Seminar In Classical Music (3)

Prerequisites: MUS 341, 360, or consent of instructor.
Music from Rococo to end of eighteenth century. Philosophical attitudes in relation to musical styles.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 564. Seminar in Romantic Music (3)

Prerequisites: MUS 342, 374 or consent of instructor.
Music from Beethoven to end of nineteenth century.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 565. Seminar In 20th-Century Music (3)

Prerequisites: MUS 342, 374, or consent of instructor.
Stylistic analysis and music; aesthetic and socioeconomic problems of contemporary music; survey of new music.
Letter grade only (A-F). May be repeated to maximum of 6 units.
566./460. Studies in Performance Practices (3)

Prerequisites: MUS 160, 360 or consent of instructor.
Surveys issues of historical performance in vocal and instrumental music, focusing on primary sources. Spans various genres and eras. Letter grade only (A-F).

## 569./469. Music of the Theater (3)

Prerequisites: MUS 374.
History and development of music for stage from 1600 to present, its conventions and styles. Analysis of representative masterworks. Letter grade only (A-F).

## 571./471. Studies in Ethnomusicology (3)

Prerequisite: MUS 374 or consent of instructor.
Emphasis on theory and methodology of enthnomusicological study. Investigation of music of particular non-western or popular cultures. For music majors only.
Letter grade only (A-F). May be repeated to maximum of 6 units.
573./473. Advanced Diction for Singers (2)

Prerequisites: MUS 273A, 273B, or consent of instructor.
Advanced principles of diction and International Phonetic Alphabet (IPA) applied to lyric Italian, French, German, and English repertoire; intended for Senior and Graduate level vocalists and choral conductors. Special studies possible in other languages.
Letter grade only (A-F).

## 574./474. Commercial Arranging (3)

Prerequisite: MUS 372 or consent of instructor.
Arranging and scoring for various types of commercial ensembles in styles demanded by contemporary performance practices.
Letter grade only (A-F).

## 575. Studies in Choral Music (3)

Prerequisite: Consent of instructor.
Studies in research techniques for choral musicians and exploration of choral masterworks including score preparation, performance practice considerations, and historical investigation. Rehearsal techniques and principles and procedures necessary to effective choral teaching also examined.
Letter grade only (A-F). May be repeated to maximum of 6 units.

## 576./467. Studies in Gender and Music (3)

Prerequisites: MUS 374 or consent of instructor.
Surveys issues surrounding women as musicians (performers and composers), comparative studies of role men and women have played in music, and feminist criticism of music.
Letter grade only (A-F).
577A-B./477A-B. Piano Accompanying (2-2)
Prerequisite: MUS 277 or consent of instructor.
Instruction and training in art and techniques of accompanying for singers, instrumentalists, and ensembles.
Letter grade only (A-F).

## 578./478. Musical Instruments of World (3)

Prerequisites: MUS 360 or consent of instructor.
Open to music majors and minors. Study of origins and history of musical instruments in western and non-western world, with emphasis on cross-cultural influences, iconographical and organological issues, and scientific classification.
Letter grade only (A-F).

## 580./480. Marching Band Techniques (2)

Marching fundamentals, charting, formations, precision drills, parade techniques and half-time pageantry.
Letter grade only (A-F).

## 581. Foundations of Music Education (3)

Open to graduate music majors only. Survey of contemporary aesthetic, philosophical, psychological and sociological trends in music education.
Letter grade only (A-F).

## 582./482. Instrumental Rehearsal Techniques and

 Literature (3)Procedures for organization and development of instrumental programs and literature for performing groups.
Letter grade only (A-F).

## 583A./483A. Choral Repertoire I (2)

Examination of five genres of choral repertoire: Mass, motet, cantata, oratorio, and madrigal. Traditional and contemporary choral repertoire for public school teachers and church choir directors.
Letter grade only (A-F).

## 583B./483B. Choral Repertoire II (2)

Survey of choral and choral/orchestral works from Renaissance to 20th century.
Letter grade only (A-F).

## 585./485. Music for Elementary Child (3)

Prerequisite: MUS 341
Examination of approaches to developing musical and aesthetic sensitivities in children. Students create vocal, instrumental and listening experiences appropriate for use in grades K-6. Intended for music education majors. Others by consent of instructor.
Letter grade only (A-F).

## 587./487. Microcomputers in Music Learning (3)

Prerequisites: MUS 125T or consent of instructor.
Music Education applications of microcomputers, including: existing instructional software and hardware, administrative applications, criteria for software and hardware selection, MIDI music composition, and contemporary issues and trends. Letter grade only (A-F).

## 588. Quantitative Issues and Research in Music Education (3)

Prerequisites: MUS 581.
Assessment and curriculum development; appropriate techniques and existing tools for measurement and evaluation of musical behavior; survey and critical analysis of research, especially quantitative, in areas relevant to music education. Design research project appropriate to field.
Letter grade only (A-F).
592A./492A. Studies in Keyboard Music (2)
Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from 13th century to Beethoven.

## 592B./492B. Studies in Keyboard Music (2)

Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from Beethoven to present.

## 593./493. Studies in Instrumental Music (3)

Prerequisite: MUS 374.
Seminar in instrumental music spanning at least two epochs of music history and covering at minimum, two of five categories: solo sonata (excluding keyboard), chamber music, orchestral/ symphonic, wind ensemble/band, and orchestral/concerto. Letter grade only (A-F).

## 594./494. Music Learning Theory (3)

Investigates research and resulting methodology developed by Dr. Edwin Gordon as to how children learn music, including nature of music aptitude, Music Learning Theory Curriculum, incorporating Music Learning Theory in music classroom/rehearsal settings, and evaluation/assessment of student learning.
Letter grade only (A-F).

## 595. Special Topics in Music (1-3)

Prerequisite: Consent of Graduate Advisor and instructor. Topics of current interest in various fields of music selected for special presentation and development.
Topics will be announced in Schedule of Classes. May be repeated to maximum of 6 units.
A. Kodaly Concept I: Methodology, Solfege and Conducting Corequisite: Consent of Instructor, MUS 595B must be taken concurrently.

Examination of Kodaly approach to music education with particular emphasis on relevance and application to American music education. Special emphasis is given to sequence of concepts for levels K-3. Includes Solfege, folk song analysis and collection, conducting, games and movement.
B. Kodaly Concept II: Methodology, Solfege and Conducting Corequisite: 595A.
Examination of Kodaly approach to music education with particular emphasis on relevance and application to American music education. Special emphasis is given to sequence of concepts for levels K-3. Includes Solfege, folk song analysis and collection, conducting, games and movement.

## F. Music and Dance Collaboration <br> Corequisite: Consent of Instructor.

Music and dance students create new works for music and dance. Collaborations may take form of improvisational, semi-
improvisational, or through-composed creations developed by two dancers and two musicians working in group setting.

## 597./497. Special Topics in Music Composition (3)

Prerequisite: Consent of Graduate Advisor and instructor.
Topics of current interest in various fields of music selected for special presentation and development.
Topics will be announced in Schedule of Classes. Letter grade only (A-F).
A. Songwriting and Analysis
B. Musical Theater Project
C. Advanced Film Scoring Project
D. Contemporary and Computer Music Notation
E. Internet Connectivity and Publishing
F. Musical Interactivity

## 598. Teaching Music in the University (1)

Prerequisite: position as TA or GA in Department of Music or consent of instructor.
Seminar on teaching methods, goals, and objectives; covers regulations and responsibilities; preparation of course materials; assessment and evaluation tools; technology in classroom. Required of first-term TAs and GAs with teaching responsibilities.
Letter grade only (A-F). May be repeated to maximum of 3 units.

## 599. Special Studies (1-3)

Prerequisite: Consent of Graduate Advisor and instructor.
Individual research or group investigation of selected topics.
Letter grade only (A-F). May be repeated to maximum of 6 units of credit.
600. Chamber Music (1)

Prerequisite: Consent of instructor.
Letter grade only (A-F). May be repeated to maximum of 8 units. (2 hrs reh.)
A. Brass Ensemble
B. New Music Ensemble
C. String Ensemble
D. University String Quartet
E. University Wind Quintet
F. University Brass Quintet
G. Piano Ensemble
K. Performance
L. Brass Chamber Music
M. Percussion Ensemble
N. Steel Drum Orchestra
O. Woodwind Chamber Music
P. String Chamber Music
R. Collegium-Vocal
S. Collegium-Instrumental
T. Saxophone Ensemble
U. Directed Accompaning
V. Studio Orchestra
X. World Percussion Group
Y. World/Traditional Music Performance
Z. University Percussion Quartet
601. Jazz Ensemble (1)

Prerequisite: Consent of instructor.
May be repeated for maximum of 8 units with different topics in same semester. (3 hrs or more reh.)
A. Jazz Ensemble I
B. Jazz Ensemble II
C. Jazz Combos
D. Vocal Jazz Ensemble I
E. Vocal Jazz Ensemble II

## 629. Individual Instruction for Music Majors (2)

Open to graduate students in music only. Private lessons in their major performance medium. Application must be made to Graduate Advisor of Department of Music during semester prior to registration. Registration is subject to departmental approval.

Letter grade only (A-F). May be repeated to maximum of 12 units credit.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition
640. Seminar in Music Theory (3)

Prerequisites: MUS 541 or 542 and consent of instructor.
Intensive seminar focusing on analytical and theoretical issues in music. May center on individual composer, theoretical technique, or history of theory.
Letter grade only (A-F). May be repeated to maximum of 6 units of degree credit.

## 645. Seminar in Advanced Composition (3)

Prerequisites: MUS 344A-B, 443, or equivalent.
Free composition in more extended forms for various combinations of instruments including full orchestra and band.
Letter grade only (A-F).
680. Seminar in Instrumental Music Teaching (3)

Prerequisite: Consent of instructor.
Principles, procedures, and materials used in teaching instrumental music in public schools. Special attention given to methods and materials used in instrument classes.
Letter grade only (A-F).

## 696./496. Research Methods (3)

Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as introduction to graduate study in music. Required of all MA and MM candidates in music.
Letter grade only (A-F).

## 698. Thesis or Project (1-6)

Prerequisite: Advancement to Candidacy and consent of Director of Music History
Planning, preparation, research, and completion of recital/project report or thesis. Enrollment limited to graduate candidates who have passed qualifying examination for their program and who have approved project/thesis proposal.
Letter grade only (A-F).

## NURSING

College of Health and Human Services

Director of Nursing<br>Loucine Huckabay<br>Director of Graduate Program<br>Bonnie Kellogg<br>Director of Undergraduate Program<br>Beth Keely<br>Department Office<br>Nursing Building (NUR), Room 17<br>Telephone<br>(562) 985-4463<br>Faculty<br>\section*{Professors}

Margaret Brady, Loucine Huckabay ,Leayn Johnson (Emerita), Beth Keely, Kathleen Keller (Emerita), Bonnie Kellogg, Ruth G. Mullins (Emerita), Barbara J. Nelms, Sharon L. Roberts (Emerita), Judy E. Smith

## Associate Professors

Lyn Callahan, Eileen Croke, Rebecca Dahlen, Kathryn Deitch, Farideh Khoiny, Nancy Oliver, Barbara White

## Assistant Professors

Natalie Cheffer, Carmen Galang, David Kumrow, Nnenaa Ohalete

Students desiring information should contact the department office for dates of opening counseling sessions.

## Bachelor of Science in Nursing

The baccalaureate program offers courses that prepare the student to become a professional nurse. Three distinct categories of students are eligible for admission: The "basic student" who enters the University without having completed a first level nursing program, the "registered nurse student" who, having completed a course of study at the first level, desires further study to expand her or his nursing capabilities to the BSN professional level. The Accelerated second-degree BSN for the student who, having completed a baccalaureate degree in another field, chooses to obtain a BSN degree in a period of slightly over a year (58 weeks).

Though each category of student enters at different levels, the terminal objectives of the nursing program are the same for all groups. The "basic student" and the Accelerated BSN student upon completion of specific courses are eligible to take the examination for licensure to practice as a registered nurse. All graduates are recommended for certification as a public health nurse in the State of California. The program is accredited by the California State Board of Registered Nursing, and the Commission on Collegiate Nursing Education (Commission on Collegiate Nursing Education, 1 Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, phone: 202-8876791).

The purpose of the bachelor's of science program in nursing is to prepare graduates to function as professional nurses in a variety of settings. Graduates are expected to have acquired foundations for continuing professional development. The curriculum is formulated to help the student develop understanding of self and others, stimulate intellectual curiosity and to develop an ability to work with colleagues to identify and resolve the health of individuals and families in a changing society. The professional nurse, while problems able to assess and intervene where health deviations exist, is committed to the role of maintaining health and preventing illness in self and others.

## Bachelor of Science in Nursing - Basic (code NRSGBS01) (135 units)

## Admission Under Impaction

Freshman or transfer students interested in the basic nursing program should request the "pre-nursing major" when they apply for admission to the University. Upon acceptance to the NRSG 200 course, the department will submit a change of major to nursing for students accepted to the program. The number of applicants to nursing exceeds the number that can be admitted. For this reason, nursing applicants are subject to criteria in addition to those required for admission to the University. To be eligible for admission to the Bachelor in Science in Nursing (Basic) program, applicants must demonstrate the following prior to the semester for which the application is submitted:

1. Applicants must have met requirements for admission to the university as a freshman or transfer student.
2. Applicants must have completed the following natural science prerequisite courses, each with a minimum grade of "C": BIOL 207, BIOL 208, MICR 200, and CHEM 140.
3. Applicants must have completed the following General Education prerequisite courses, each with a minimum grade of "C": Category A1, Oral Communications; Category A2, College Composition; Category A3, Critical Thinking; and Category B2, Quantitative Reasoning.
4. Applicants must complete a test that assesses their essential academic skills and knowledge: Reading Comprehension, Math, Science and English (offered by the department at the start of each semester) before their application will be considered.
5. Applicants must submit a supplemental application to the department by February 15 for the fall semester or by September 15 for the spring semester.
6. Submit transcripts of any previous college work to the Nursing Department as well as to the Admissions Office The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission on a space-available basis according to the faculty's judgment of their ability to succeed in the program.

Further information regarding admission to program courses is available at group counseling sessions held in the department.
NOTE: Lab fees are charged for student supplies used throughout the nursing program.

## Requirements

Prerequisite Natural Science Prerequisites: CHEM 140, BIOL 207, BIOL 208, MICR 200, or equivalent. Prerequisite General Education Courses: English Composition, Quantitative Reasoning, Oral Communication, and Critical Thinking.

Support courses: BIOL 204, 304, FCS 339, PSY 100, and SOC 100.

Nursing Courses: NRSG 200, 200L, 202, 250, 250L, 260, 260L, 301, 310, 312, 312L, 331, 331L, 341, 341L, 353, 361, 361L, 371, 371L, 400, 402, 402L, 450, 451, and one of the following:, 452A and 453L or 452B and 454L or 452D and 456L.

Criminal background check, health insurance and malpractice insurance are required for clinical coursework.

## Bachelor of Science in Nursing Registered Nurse (code NRSGBS02) (120 units)

## Admission Requirements

Registered Nurse Applicants are required to apply for admission to the University and do the following:

1. Hold a current license or be eligible for license to practice in California;
2. Graduation from an Accredited Associate Degree program or evaluation of diploma program for equivalency by an Accredited Associate Degree program;
3. Have 56 transferable units;
4. Maintain malpractice and health insurance throughout clinical coursework and submit to a criminal background check;
5. Attend a group counseling session for RN students and complete the RN application form;
6. Submit official transcripts of any previous college work to the Nursing Department;
7. Fulfill the Graduation Writing Assessment Requirement (GWAR) either prior to admission or within the first semester in the program.
Graduates of diploma schools of nursing are urged to seek information/admission to a community college that offers the opportunity to earn academic credit for a diploma nursing program.

## Requirements

Support Courses: CHEM 140, and BIOL 304.
Nursing Courses: NRSG 309, 312, 312L, 400, 402, 402L, 450, 451 and one of the following: 452A and 453L or 452 B and 454 L or 452D and 456L.

## Course of Study

A specific combination of general education, prerequisites, nursing and elective courses totaling 135 units for the basic program and 120 units for the R.N. program are required for graduation. All nursing courses in the nursing program must be taken in sequence. In general, the number assigned to each nursing course indicates where it occurs in the sequence. Admission to the first course is by application which will be accepted upon successful attainment of the criteria listed above. The last date to file applications for each semester will be available
in the Nursing Department. Progress in the nursing major requires that students maintain a cumulative 2.0 GPA on all units attempted and attain a minimum of a "C" grade in each of the nursing courses as well as all required support courses. The student who earns less than a grade of " $C$ " must repeat that course prior to being admitted to the next course in the nursing course sequence. A nursing course may be repeated one time. The nursing sequence of courses requires a minimum of six semesters for the "basic student". A break in the sequence of nursing courses necessitates readmission on a space-available basis.

## Nurse Practitioner Certificate (code NRSGCT01)

A Nurse Practitioner Certificate is awarded to students who complete the required courses in one of the following Nurse Practitioner specialty areas:

## Family Nurse Practitioner

## Requirements

Completion of NRSG 510, 520, 530, 540, 550, 560, 682, 682 A\&B, 683, 683 A\&B.

## Pediatric Nurse Practitioner

## Requirements

Completion of NRSG 510, 520, 530, 540, 550, 560, 684, 684 A\&B, 685, 685 A\&B.

## Adult-Geriatric Nurse Practitioner

## Requirements

Completion of NRSG 510, 520, 530, 540, 550, 560, 686, 686 A\&B, 687, 687 A\&B.

## Psychiatric-Mental Health Nurse Practitioner

## Requirements

Completion of NRSG 510, 520, 530, 540, 550, 560, 688, 688 A\&B, 689, 689 A\&B.

## Health Services (School Nurse) Credential (code 600)

The Health Services (School Nurse) credential is required of registered nurses working in the California school system.

## Admission

1. Copies of transcripts of Baccalaureate in Nursing and Masters in Nursing (with a Pediatric Nurse practitioner speciality) degrees;
2. Copy of State of California RN licensure and entitlement as a Nurse Pracitioner;
3. Three letters/checklists of reference;
4. Completion of the Department of Nursing Graduate Program Application.

## Requirements

Completion of the following with a grade of " B " or better: NRSG 680C and 680L; H SC 430; CD 373.

## GRADUATE PROGRAMS

## Master of Science in Nursing

The master of science degree is available to qualified students who desire advanced preparation in a variety of clinical speciality areas. The program is approved by the Board of Registered Nursing, and accredited by the Commission on Collegiate Nursing Education (1 Dupont Circle, NW, Suite 530, Washington, DC, 20036-1120, phone: 202-887-6791).

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines and community services to promote health.

The focal point in this curriculum is the nursing process with strong components of clinical medical knowledge complemented by behavioral science concepts. Courses are interdependent and have been structured to provide clinical depth in the area of student's choice.

The graduate will have the knowledge and skill to function as an advanced practice nurse in one of several speciality areas. Nursing research skills and the application of nursing theory to practice are major emphases of the curriculum. Each applicant should request a copy of the official transcript of all college course work be sent to the department graduate program of nursing in addition to the copies required by the Office of Admissions and Records.

## Prerequisites

1. A bachelor's degree in nursing preferred: A bachelor's degree in a related field will be considered;
2. Current license to practice as a registered nurse in California; PHN Certificate needed for concurrent MSN/MPH program;
3. Admission to graduate standing in nursing at the University;
4. An upper division or graduate course in statistics;
5. A physical assessment course which includes clinical practice (all speciality areas except concurrent MSN/MPH and MSN/MSHCA);
6. An upper division or graduate level course in pathophysiology (all speciality areas except concurrent MSN/ MPH and MSN/MSHCA);
7. An upper division public health nursing course;
8. An overall GPA of 2.75 or better in the last 60 units of the undergraduate BSN Program.

## Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy;
2. Completion of all undergraduate deficiencies;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Approval of the department graduate advisor and Director of Graduate Studies and Research, College of Health and Human Services.
The M.S. in Nursing requires completion of the required courses in one of the following speciality areas: Adult-Geriatric, Family, Pediatric, Psychiatric-Mental Health, Women's Health Care.

## Master of Science in Nursing (code NRSGMS01)

## Core Requirements

1. Completion of a minimum of 37 units in approved upper division and graduate courses;
2. An overall GPA of 3.0 or better;
3. Completion of an approved thesis, directed project or comprehensive examination.

## Nurse Practitioner Speciality Areas: Family, Pediatric, Adult-Geriatric, and Psychiatric-Mental Health

## Requirements

Core courses: NRSG 510, 520, 530, 540, 550, 560, 596.
Theories for Advance Practice Nursing I and II: NRSG 682 and 683 , or 684 and 685 , or 686 and 687 , or 688 and 689
Clinical Studies in Advance Practice Nursing I-IV: NRSG 682A/B and 683A/B, or 684A/B and 685A/B, or 686A/B and 687A/B, or 688A/B and 689A/B; and 692 or 695 or 698
Women's Health Care: NRSG 560, 596, 660B, 680A, B, C (at least 6 units), 680L series (at least 9 units) and 692 or 695 or 698;

## Master of Science in Nursing/Master of Public Health (code NRSGMN01)

The Departments of Nursing and Health Science offer a concurrent Master of Science and Master of Public Health degree available to qualified students who desire advanced preparation in the area of public health nursing with a practice focus of primary prevention, illness prevention, and health promotion. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two Departments in each semester in order to provide an intense learning experience. The Master of Science and Master of Public Health (Health Education Option) provides the opportunity for students to increase competence in designing, implementing, and evaluating behavior change programs in preparation for serving in various health agencies.

## Prerequisites

1. An ethics course
2. A cultural diversity course
3. Graduate Record Examination (GRE) - verbal and quantitative scores.
4. Current professional resume describing applicant's relevant experience.

## Requirements

1. A minimum of 57 units of approved Nursing and Health Science upper division and graduate level courses including: HSC 500 or MICR 429; HSC 503 or BIOL 565; HSC 508, 528, 535, 570, 581, 624, 625; NRSG 560, 565, 670, 671, 680C, 670L, 671L, 680CL; NRSG 596 or HSC 696; NRSG 698 or HSC 697.
2. An overall GPA of 3.0 or better in all courses
3. A thesis or a directed project (Department of Health Science only)
4. If a student after entering the concurrent MSN/MPH program returns to a single degree program, all requirements for the single degree program must be met.

## Master of Science in Nursing/Master of Science in Health Care Administration (code NRSGMC01)

The Department of Nursing and Health Care Administration Programs offer a concurrent Master of Science in Nursing and Master of Science in Health Care Administration dual degree available to qualified students who desire advanced preparation in the areas of nursing and health care administration with a practice focus as Advanced Practice Nurses in administration. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two degree programs each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines. The joint Master of Science in Health Care Administration and the Master of Science in Nursing provides the opportunity for students to specialize as advanced practice nurses with emphasis in administration and increasing competence in designing, implementing, and evaluating programs in preparation for serving in various health agencies. An important career path for advanced practice nurses is as nurse executive in the variegated segments of the health care industry including entrepreneurial activities. Courses are interdependent and have been structured to provide clinical depth in the areas of nursing and administration.

Each applicant should request that a copy of official transcript of all college course work be sent to the Nursing Department Graduate Advisor and to the Office of Admissions and Records.

## Prerequisites

1. Public Health Nurse Certificate, or eligibility for certificate in California.
2. An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis.
3. Submission of quantitative and verbal scores from the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT).
4. Current professional resume describing the applicant's relevant experience.

## Advancement to Candidacy

A joint committee, consisting of Nursing and Health Care Administration faculty involved in the program, will review files and make a determination to advance the candidate to graduate status.

## Requirements for Completion

1. A minimum of 57 units of approved Nursing and Health Care Administration upper division and graduate level courses including:

The Program of Study: NRSG 559, 560, 596, 680A, 680B, 680C, 680AL, 680BL, 680CL, 698, HCA 502, 505, 510, 515, 524, 530, 535, 550, 698
2. An overall GPA of 3.0 or better in all courses.
3. Directed project or a thesis.
4. *Graduate degrees obtained previously may be accepted toward meeting a portion of the unit requirements of the concurrent MSN/MSHCA degree program.
5. If a student after entering the concurrent MSN/MSHCA program returns to a single degree program, all requirements for the single degree program must be met.

* $60 \%$ of units must be earned in residence


## Courses (NRSG)

## LOWER DIVISION

## 200. Introduction to Nursing Health Care (3)

Prerequisites: Admission to the nursing program. Corequisites: NRSG 200L, 202, BIOL 204, NUTR 339 or consent of instructor. Support courses: SOC 100 or PSY 100.
Development of concepts of high level wellness and self care. Introduction to physical and social science principles which provide basis for beginning level nursing theory and practice. Introduction to nursing process and framework for nursing practice.
Letter grade only (A-F). (Lecture-Discussion, 3 hours)
200L. Introduction to Nursing Health Care Clinical (3)
Prerequisite: Admission to nursing program. Corequisites: NRSG 200, 202, BIOL 204, NUTR 339 or consent of instructor. Support courses: SOC 100 or PSY 100.
Designed to provide guided utilization of beginning level theory and skill in a simulation laboratory. Opportunity provided to experience clinical practice based on concepts of nursing process and framework for nursing practice.
May be repeated to a maximum of 6 units. Credit/No Credit grading only. (Laboratory 9 hours)

## 202. Health Care Communication (2)

Prerequisite: Admission to the nursing program, or consent of instructor. Corequisites: NRSG 200, 200L, BIOL 204, NUTR 339 or consent of instructor. Support courses: SOC 100 or PSY 100.
Focus on communication theory, helping and communication with diverse people. Introduction to understanding psychosocial and cultural factors influencing health professional-client interaction. Clinically oriented projects and activities provide opportunities for application of theory.
Letter grade only (A-F). (Lecture-discussion, 2 hours)
250. Intermediate Nursing Health Care (3)

Prerequisite. NRSG 200, 200L, 202, BIOL 204, NUTR 339, or consent of instructor. Corequisites: NRSG 250L, 312, 312L, 260, BIOL 304, or consent of instructor. Support courses: PSY 100 or SOC 100.
Development of intermediate level theory of physical and psycho-social wellness and accountability. Application of recognized physical and social science principles and current research findings to intermediate level nursing theory and skills essential to actualization of nursing process.
Letter grade only (A-F). (Lecture-Discussion 3 hours)
250L. Intermediate Nursing Health Care Clinical Studies (3)
Prerequisites: NRSG 200, 200L, 202, BIOL 204, NUTR 339, or consent of instructor. Corequisites: NRSG 250, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Support courses: PSY 100 or SOC 100.
Guided laboratory experience to assist in synthesizing intermediate theory and gaining skills in application of selected nursing process activities in simulation and in direct patient care.
Letter grade only (A-F). (Laboratory 9 hours)

## 260. Older Adult Health Care (2)

Prerequisites: NRSG 200, 200L, 202, NUTR 339, BIOL 204, or consent of instructor. Corequisites: NRSG 260L, 250, 250L, 312, 312L, BIOL 304, or consent of instructor. Support courses. PSY 100 or SOC 100.

Study of unique needs of aging population. It includes study of gerontological concepts, principles, and theories. Focus on health promotion and delivery of care within framework of nursing process.
Letter grade only (A-F). (Lecture-Discussion)
260L. Older Adult Health Care Clinical Studies (2)
Prerequisites: NRSG 200, 200L, 202, NUTR 339, BIOL 204, or consent of instructor. Corequisites: NRSG 260, 250, 250L, 312, 312L, BIOL 304, or consent of instructor. Support courses. PSY 100 or SOC 100.
Provides experience in applying nursing process to care of aging client in a variety of settings and opportunity for validation of gerontological concepts, principles and theories.
Letter grade only (A-F). (Laboratory 6 hours)

## UPPER DIVISION

## 301. Psychological Aspects of Health Care (2)

Prerequisites: SOC 100, PSY 100; NRSG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSG 331, 331L, 341, 341L, or consent of instructor.
Presents an exploration of psychosocial concepts, cultural and environmental factors relative to wellness/illness of individuals and families with special attention to physically ill individuals. Group interaction directed toward development of self-awareness and development of professional role.
Letter grade only (A-F). (Lecture-Discussion)
309. Dimensions of Professional Nursing (2)

Prerequisite: Admission to the ADN to BSN program. Support courses: CHEM 140, BIOL 304.
Focuses on analysis of transition from a technical to a professional baccalaureate prepared nurse. Content includes: program and University orientation, role changes, ethics, dimensions of nursing, and training in completion of a research based paper and presentation.
Letter grade only (A-F). (Lecture-Discussion)

## 310. Human Life Cycle for Nurses (3)

Prerequisites: NRSG 301, 331, 331L, 341, 341L. Corequisites: NRSG 353, 361, 361L, 371, 371L.
Presents the study and application to nursing of physiological, social, cognitive, linguistic and emotional development of persons as individuals and as family members from conception through old age. Student becomes competent in applying developmental theory to assessment and intervention of patients and their families from infants to the elderly.
Letter grade only (A-F). (Lecture-Discussion) Not open for credit to students with credit in NRSG 308 and 358.

## 312. Health Assessment (2)

Prerequisites: NRSG 200, 200L, 202, BIOL 204, NUTR 339, or consent of instructor. Corequisites: NRSG 250, 250L, 260, 260L, 312L, BIOL 304, or consent of instructor. Support courses: PSY 100 or SOC 100.
Covers techniques of history taking and physical examination of healthy individuals. These techniques are used by nurse in identification of patient problems.
Letter grade only (A-F). (Lecture-Discussion)

## 312L. Physical Assessment for Nurses Lab (1)

Prerequisites: NRSG 200, 200L, 202, BIOL 204, NUTR 339, or consent of instructor. Corequisites: NRSG 250, 250L, 260, 260L, 312, BIOL 304, or consent of instructor. Support courses: PSY 100 or SOC 100.

Provides opportunity to apply techniques of history taking and physical examination which are used by nurse in identification of patient problems. Includes demonstration and practice of physical assessment methodology.
(Technical activities and laboratory 2 hours, 1 hour independent student practice). Letter grade only (A-F).

## 331. Critical Care Nursing (2)

Prerequisites: PSY 100, SOC 100, NRSG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSG 301, 331L, 341, 341L, or consent of instructor.
Advanced study of acute and critically ill patient. Focuses on complex knowledge required to provide comprehensive nursing care to patients and families experiencing critical illness or injury. Cultural needs of patients and families are emphasized.
Letter grade only (A-F). (Lecture-Discussion) Not open for credit to students with credit in NRSG 360.

## 331L. Critical Care Nursing Clinical Studies (3)

Prerequisites: PSY 100, SOC 100, NRSG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSG 301, 331, 341, 341L, or consent of instructor.
Focuses on application of content presented in NRSG 331 in clinical setting. Emphasis on critical thinking and collaboration with other members of health care team. Will gain experience using advanced technology in this specialized area of nursing.
Letter grade only (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 360L.

## 341. Psychiatric/Mental Health Nursing (2)

Prerequisites: PSY 100, SOC 100, NRSG 250, 250L, 260, 260L,
312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSG 301, 331, 331L, 341L, or consent of instructor.
Presents theory base for psychiatric/mental health delivery system. Cultural, ethical, economic and legal influences on mental health will be considered.
Letter grade only (A-F) (Lecture-Discussion) Not open for credit to students with credit in NRSG 370.

## 341L. Psychiatric/Mental Health Nursing Clinical (3)

Prerequisites: PSY 100, SOC 100, NRSG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSG 301, 331, 331L, 341, or consent of instructor.
Provides clinical experiences to apply theories learned in NRSG 341. Will utilize nursing process to apply theories and implement care for clients with psychiatric/mental health issues.
Letter grade only (A-F). (Lecture-Discussion) Not open for credit to students with credit in NRSG 370L.

## 353. Legal Aspects of Health Care (2)

Prerequisites: NRSG, 301, 331, 331L, 341, 341L, or consent of instructor. Corequisites: NRSG 310, 361,361L, 371, 371L, or consent of instructor.
Presents legal duties and responsibilities of nurses in delivery of health care services. Professional licensure regulations, scope of nursing practice, and ethical issues related to nursing practice are emphasized.
Letter grade only (A-F). (Lecture/Discussion) Not open for credit to students with credit in NRSG 351.

## 361. Child Health Care (2)

Prerequisites: NRSG 301, 331, 331L, 341, 341L, or consent of instructor. Corequisites: NRSG 310, 353, 361L, 371, 371L, or consent of instructor.
Theoretical basis for nursing care of well and ill children from birth through adolescence. Pathology of common pediatric illnesses and nursing interventions are described. Issues of culture, growth and development, and family dynamics are considered.
Letter grade only (A-F). (Lecture-Discussion) Not open for credit to students with credit in NRSG 340.

## 361L. Child Health Care Clinical (3)

Prerequisites: NRSG, 301, 331, 331L, 341, 341L, or consent of instructor. Corequisites: NRSG 310, 353, 361, 371, 371L, or consent of instructor.
Opportunities to apply concepts from NRSG 361 with a variety of children and their families. Will assess physical, psychological, and cultural issues while planning, implementing, and evaluating age appropriate nursing care for well and ill children.
Letter grade only (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 340L.

## 371. Women's Health Care (2)

Prerequisites: NRSG 301, 331, 331L, 341, 341L, or consent of instructor. Corequisites: NRSG 310, 353, 361, 361L, 371L, or consent of instructor.
Didactic content focuses on health care needs of women to include: health promotion/prevention, gynecology, fertility/infertility, and special needs for herself, her family and her newborn during pregnancy and delivery. Multicultural, psychological, and social influences are addressed.
Letter grade only (A-F). (Lecture-Discussion) Not open for credit to students with credit in NRSG 300.

## 371L. Women's Health Care Clinical (3)

Prerequisites: NRSG 301, 331, 331L, 341, 341L, or consent of instructor. Corequisites: NRSG 310, 353, 361L, 371, or consent of instructor.
Provides opportunity to apply theoretical concepts of special physiological, psychological, social, spiritual and cultural needs of women, families and newborns during antepartum, intrapartum, postpartum and newborn transition period in a supervised clinical setting.
Letter grade (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 300L.
400. Health Care Delivery Systems (3)

Prerequisites: NRSG 310, 371, 371L, 361, 361L, 353, or consent of instructor; for RNs: NRSG 309, BIOL 304, or consent of instructor. Corequisites: NRSG 402, 402L, or consent of instructor.
Study of health care delivery systems with emphasis on role of nursing, less well defined problems and their causes, and in-depth study of impact of political, economic and social, ethical, and international issues of health care system.
Letter grade only (A-F). (Lecture-Discussion)

## 402. Community Health Nursing (3)

Prerequisites: NRSG 310, 371, 371L, 361, 361L, 353, or consent of instructor. Corequisites: NRSG 402L, 400; or consent of instructor.
Focuses on diversified and/or permanent interruptions in health-
illness continuum and associated nursing care for aggregates in non-acute institutions and community facilities. Content emphasizes variety of life styles and diversified ethnic groups.
Letter grade only (A-F). (Lecture-Discussion)

## 402L. Community Health Nursing Clinical Studies (4)

Prerequisites: NRSG 310, 371, 371L, 361, 361L, 353, or consent of instructor; for RNs: BIOL 304, or consent of instructor. Corequisites: NRSG 402, 400; or consent of instructor.
Experience in working with diversified health problems of individuals, families, and communities with an emphasis on development of appropriate nursing interventions for underserved populations and communities.
Letter grade only (A-F). (Laboratory 12 hours)
405./505. Holistic Nursing Interventions Across the Lifespan (3)
Prerequisites: Senior standing or graduate status.
Will present therapeutic touch, meditation, and imagery as interventions grounded in a holistic nursing framework. Will learn basics of practicing modality which will enable them to begin incorporating three modalities into their practice.
Letter grade only (A-F)
450. Nursing Research (3)

Prerequisites: NRSG 400, 402, 402L. Corequisites: NRSG 451, 452A and 453L or 452B and 454L or 452D and 456L.
Emphasizes application of research theory to evidence-based nursing practice, including ethics in nursing research and research process. Letter grade only (A-F). (Lecture-Discussion)

## 451. Nursing Leadership and Management (2)

Prerequisites: NRSG 400, 402, 402L. Corequisites: NRSG 450, 452A and 453 L or 452 B and 454 L or 452 D and 456 L .
Principles of leadership and management as they apply to front line management positions in healthcare. Emphasison understanding role and responsibilities of professional nurse as leader and manager of patient care services within a variety of settings.
Letter grade only (A-F). (Lecture-Discussion). Not open for credit to students with credit in NRSG 450L.

## 452A. Advanced Nursing in Critical Care (2)

Prerequisites: NRSG 400, 402, 402L, or consent of instructor. Corequisites: NRSG 453L, 450, 451; or consent of instructor.
Emphasizes and utilizes advanced concepts and theories in critical care/emergency department, management and leadership applied to selected populations. Integration of critical care/emergency department nursing knowledgeessential to new professional roles. Letter grade only. (A-F). (Clinical process)

## 452B. Advanced Maternal Child Health in Nursing (2)

Prerequisites: NRSG 400, 402, 402L, or consent of instructor. Corequisites: NRSG 454L, 450, 451, or consent of instructor.
Emphasizes advanced concepts in maternal child nursing and theories of leadership and management applied to selected maternal child settings. Content focuses on a variety of maternal child populations.
Letter grade only (A-F). (Clinical Process)

## 452D. Advanced Nursing in Community Mental Health (2)

Prerequisites: NRSG 400, 402, 402L, or consent of instructor. Corequisites: NRSG 456L, 450, 451, or consent of instructor.
Emphasizes and utilizes advanced concepts and theories in community, oncology and mental health nursing. This course utilizes management and leadership theories as a critical element in caring for a variety of patients.
(Clinical Process) Letter grade Only (A-F).

## 453L. Advanced Nursing in Critical Care Clinical Studies

 (4)Prerequisites: NRSG 402, 402L; or consent of instructor. Corequisites: NRSG 452A, 450, 451, or consent of instructor.
Provides clinical experiences in critical care/emergency department health care delivery systems and application of theories of management and leadership.
Letter grade only (A-F). (Laboratory 12 hours)

## 454L. Advanced Nursing in Maternal-Child Clinical Studies

 (4)Prerequisites: NRSG 400, 402, 402L; or consent of instructor. Corequisites: NRSG 452B, 450, 451, or consent of instructor.
Provides clinical experiences in application of advanced concepts of maternal-child nursing as well as management and leadership theories.
Letter grade only (A-F). (Laboratory 12 hours)

## 456L. Advanced Nursing in Community Mental Health Clinical (4)

Prerequisites: NRSG 400, 402, 402L; or consent of instructor. Corequisites: NRSG 452D, 450, 451, or consent of instructor.
Provides advanced experiences in a clinical setting. Utilizes knowledge gained through-out nursing program to provide care to patients in hospital and community.
Letter grade only (A-F). (Laboratory 12 hours)

## 481I. Parenting (3)

Prerequisites: Completion of GE foundation requirements, one or more exploration courses, and upper division standing.
Effective parenting with emphasis on common parenting concerns and developmental tasks of parents and children.
*482. Health Assessment of the Aging Client (3)
Prerequisites: GERN 400 I or equivalent and upper standing or consent of instructor.
Assessment of physical, psycho-social status of aging client as they affect health and well being, and identification of actual or potential health related problems using a variety of tools and techniques.
Same course as GERN *482 (Lecture-Discussion, 3 hrs .)

## 490. Independent Study (1-3)

Prerequisite: Consent of any nursing faculty. Students who have made arrangements with a faculty advisor for appropriate learning objectives may enroll.
May be repeated to a maximum of 6 units.
499. 1599. Special Topics in Nursing (1-3)

Prerequisite: Consent of instructor.
Topics consistent with contemporary nursing or curricular trends will be announced each semester.
May be repeated to a maximum of 3 units with different topics.

## GRADUATE LEVEL

## 502. Genetics in Nursing Practice (3)

Prerequisites: Senior standing or graduate status or consent of instructor.
Overview of genetics implications for nurses as they provide health services to clients of all ages, diverse ethnic, cultural, life-style and geographic areas. Will explore basic mechanisms of genetic inheritance and impact that genetics has on health promotion, disease prevention and policy implications.
Letter grade only (A-F)

## 505. /405. Holistic Nursing Interventions Across the Lifespan (3)

Prerequisites: Senior standing or graduate status.
Will present therapeutic touch, meditation, and imagery as interventions grounded in a holistic nursing framework. Basics of practicing modality which will enable them to begin incorporating three modalities into their practice.
Letter grade only (A-F)

## 510. Advanced Pathophysiology for Advanced Practice Nursing (2)

Prerequisites: Admission to the graduate nursing program and completion of upper division pathophysiology course, or consent of instructor.
Builds upon knowledge developed in undergraduate Pathophysiology course. Integration and communication between organs systems will be explored to gain greater knowledge of disturbances at cellular level which predictably result in organ and system dysfunction.)
Prerequisite to NRSG 680 series. Letter grade only (A-F). LectureActivity)

## 511A. Advanced Pathophysiology for Clinical Nurse Specialists (2)

Prerequisite: Admission to the Acute Care Adult CNS graduate nursing program or consent of instructor.
Presents the principles underlyng the disturbance of human functional and homeostatic mechanisms. Disturbances at the cellular level are explored to enable the student to build an understanding of resultant aberrant organ and system function. Letter grade only (A-F).

## 520. Advanced Pharmacology for Advanced Practice Nursing (3)

Prerequisites: Admission to the graduate nursing program, or consent of instructor.
Deals with use of drugs in providing perinatal care, family planning services and/or routine health care.
Prerequisite to NRSG 680 series. Letter grade only (A-F)
521A. Advanced Pharmacology for Clinical Nurse Specialists (CNS) (3)
Prerequisite: Admission to the Acute Care Adult CNS graduate nursing program.
Designed to provide advanced knowledge about pharmacological agents utilized in the management of a variety of acute care clinical situations. Content will focus on the role of CNS.
Letter grade only (A-F).

## 530. Advanced Physical Assessment for Advanced Practice Nursing (2)

Prerequisites: Admission to the graduate nursing program and completion of basic physical assessment course, or consent of instructor.
Designed for advanced practice nurses and a prerequisite to each specialty track. Through classroom instruction, web based instruction and self-assessment, and on-site clinical review and practice, advanced assessment and diagnostic skills are developed.
Prerequisite to NRSG 680 series. Letter grade only (A-F). (Technical activity and laboratory 4 hours)

## 540. Health Care Economics, Policy, and Management

 for Advanced Practice Nursing (2)Prerequisites: Admission to graduate nursing program or consent of instructor.
Designed to provide an understanding of economic and political environment of US healthcare system. Principles of economic and organizational theory are explored within context of advanced practice role. Contemporary issues are explored.
Prerequisite to NRSG 680 series. Letter grade only (A-F). (LectureDiscussion)

## 550. Human Diversity and Psychosocial Issues in Health Care for Advanced Practice Nursing (2)

Prerequisites: Admission to graduate nursing program or consent of instructor.
Focuson understanding and developing advanced practice nurse in providing culturally competent care to individuals, families, groups, and communities with diverse cultural backgrounds. Patterns of human interaction that foster and neglect health and quality of life are analyzed. Contemporary issues are explored.
Prerequisite to NRSG 680 series. Letter grade only (A-F). (LectureDiscussion)

## 551A. Spanish Language Competency for Advanced Practice Nurses (3)

Prerequisite: Consent of instructor.
Provides foundational knowledge and skills to enable advanced practice nurse (APN) to learn and apply principles of cultural competency and Spanish language skills to role of nurse practitioner in conducting a health history and physical assessment for diverse Spanish speaking populations.

## 551B. Spanish Language Competency for Advanced Practice Nurses (3)

Prerequisite: NRSG 551A or consent of instructor.
Principles of cultural competency and Spanish language skills for diagnosing and treating Spanish speaking patients: focuses on hematology, musculoskeletal II, cardiovascular, neurology, dermatology I \& II, family violence/substance abuse, nutrition/ weight management, developmental disorders, genetics, mental health, ophthalmology, and infectious diseases.

556A. Conditions of Learning and Instruction in Nursing (3)

Application of theories of learning and instruction to patient/student teaching-learning situations. Content covered includes conditions of learning, models of instruction, transfer of learning, behavior modification techniques, variables influencing learning and instruction, and evaluation of instruction.
Letter grade only (A-F)
556B. Curriculum Development in Nursing (3)
A systematic study of principles of curriculum development as they apply to different types of nursing programs. Focuses on relationship among philosophy, objectives, selection and organization of learning experiences and evaluative process. Letter grade only (A-F)

## 556L. Theoretical Concepts Laboratory of Nursing Education (1-4)

Prerequisites: NRSG 556A or consent of instructor.
Instructional skills and application of theories of learning and instruction to practice and teaching of nursing within a supervised practice-teaching situation. Reference to ways teaching skills relate to broader educational issues such as teaching/learning theory.
May be repeated to a maximum of 4 units. Letter grade only (A-F)

## 559. Nursing Administration (3)

Application of management theories to administration, organizational theory, structure and culture, leadership theories and decision-making processes in clinical settings. Legal-ethical parameters of nursing administration are threaded throughout course.
Letter grade only (A-F)

## 560. Professional Foundations of Theoretical and

 Professional Roles in Advanced Nursing Practice (2)Prerequisites: Admission to graduate nursing program or instructor consent.
Study of theoretical frameworks and professional roles influencing advanced practice nursing. Analyze and implement major theoretical frameworks for advanced practice. Begin dynamic process of role development by exploring role boundaries and collaborative practice.
Prerequisite course to NRSG 680 series. Letter grade only (A-F). (Lecture-Discussion)

## 565. Theories of Community/Public Health Nursing (3)

Prerequisites: Admission to graduate nursing program and NRSG 560 , or consent of instructor.
Analysis, synthesis and application of theories from nursing, public health, and other disciplines to community/public health nursing practice. Exploration of population-focused theory and provision of health promotion and prevention services to underserved populations and communities.
(Seminar, 3 hours) Letter grade only (A-F)
590. Independent Study (1-3)

Prerequisite: Consent of a nursing faculty member.
Independent research under supervision of a nursing faculty member.
Letter grade only (A-F)

## 596. Research Methods in Nursing (3)

Prerequisites: Admission to the graduate nursing program and upper division statistics, or consent of instructor.
Nursing research process, including use and testing of nursing theories, development of research proposals including conceptualization of problem, literature search, study design, date collection, analysis and interpretation of findings.
Letter grade only. (A-F). (Lecture-Discussion.)

## 599. /499. Special Topics in Nursing (1-3)

Prerequisite: Consent of instructor.
Topics consistent with contemporary nursing or curricular trends will be announced each semester. Credit may be earned each time a new topic is offered.
Letter grade only (A-F)
660B. Theoretical Base for Advanced Nursing Practice (3)
Prerequisites: Admission to graduate nursing program,
Pathophysiology, and Physical Assessment, or consent of instructor.
Relationship of psycho-social theory to health care with an emphasis on application of theory to clinical practice. Various sections will focus on different areas of clinical interest.
Letter grade only (A-F)

## 670. Community Health Theories for Advanced Practice Nursing I (3)

Prerequisites: Admission to graduate nursing program and NRSG 565, or consent of instructor. Corequisites: NRSG 670L.
Examination of Community/Public Health Nursing roles in health program and policy planning for aggregates, populations and communities. Theories of community programs and health policy planning explored for underserved and ethnically diverse populations.
(Seminar 3 hours). Letter grade only (A-F)

## 670L. Advanced Community/Public Health Nursing Clinical

 I (3)Prerequisites: Admission to graduate nursing program and NRSG 565, or consent of instructor.
Experiences in selected community health settings to prepare for advanced nursing practice focus on assessment, planning, and policy development for culturally diverse populations.
(Clinical 9 hours) Letter grade only (A-F)

## 671. Community Health Theories for Advanced Practice

 Nursing II (3)Prerequisites: NRSG 670 and 670L or consent of instructor.
Corequisites: NRSG 671L.
Examination of the Community/Public Health Nursing (C/PHN) roles in health program and policy implementation for aggregates, populations, and communities. Theories of community health programs and health policy implementation will be explored for underserved and ethnically diverse populations.
(Seminar, 3 hours) Letter grade only (A-F)

## 671L. Advanced Community/Public Health Nursing Clinical

 II (3)Prerequisite(s): NRSG 670 and 670L, or consent of instructor. Corequisite: NRSG 671.
A laboratory course offering clinical experiences in selected community health settings to prepare the student for advanced nursing practice.
(Clinical 9 hours) Letter grade only (A-F).

## 673. Theories for Advanced Nursing Practice in Acute Care: Adult Patients (3)

Prerequisite: NRSG 511A, 521A, 530, 540, 550, 560 and 596 or consent of instructor; Corequisite: NRSG 673L.
Emphasis is on the Clinical Nurse Specialist's (CNS) sphere of influence impacting the health outcomes of diverse patients with multiple, complex health problems and their families by developing advanced competencies necessary for the management of multiple therapeutic interventions.
Letter grade only (A-F).

## 673L. Clinical Studies in Acute Care (3)

Prerequisite: NRSG 511A, 521A, 530, 540, 550, 560 and 596 or consent of instructor; Corequisite:NRSG 673.
Focuses on implementation of CNS roles of teacher, expert clinician, manager of care, and research in a variety of acute care settings. Sphere of influence is primarily patient and family related.
Letter grade only (A-F).
674. Theories for Advanced Nursing Practice in Acute Care: Employees (3)
Prerequisite: NRSG 673 and 673L or consent of instructor. Corequisite: NRSG 674L.
Deals with development of advanced skills and competencies in the management and human resources, educational programs, motivation, consultation, and personnel ethics as they apply to role of clinical nurse specialist.
Letter grade only (A-F).

## 674L. Clinical Studies in Acute Care (3)

Prerequisite: NRSG 673 and 673L or consent of instructor. Corequisite: NRSG 674.
Focuses on implementation of CNS roles of teacher, expert clinician, manager of care, and research in a variety of acute care settings. Sphere of influence is primarily the employees.
Letter grade only (A-F).

## 675. Theories for Advanced Nursing Practice in Acute Care Clinical Nurse Specialist (CNS): The Organizational Setting (3)

Prerequisite: NRSG 674 and 674L or consent of instructor. Corequisite: NRSG 675L.
Focuses on CNS roles as managers of care, change agents, consultants and teachers in a variety of acute care settings. Sphere of influence is the organizational network.
Letter grade only (A-F).

## 675L. Clinical Studies in Acute Care (3)

Prerequisite: NRSG 674 and 674L, or consent of instructor. Corequisite: NRSG 675.
Focuses on CNS roles as manager of care, change agent, consultant and teacher in a variety of acute care settings. Sphere of influence is primarily the employees.
Letter grade only (A-F).

## 680A, B, C. Theories for Extended Nursing Practice $(3,3,3)$

Prerequisites: Admission to graduate nursing program, a physical assessment course and upper division pathophysiology course, or consent of instructor. Corequisite: NRSG 680L.
Normal and pathological conditions and management theory base applicable for advanced nurse in clinical areas of concentration.
May be repeated to a maximum of 6 units in each suffix. Letter grade only (A-F)

## 680L. Clinical Studies in Nursing (3)

Prerequisites: Admission to graduate nursing program, a physical assessment course and upper division pathophysiology course, or consent of instructor. Corequisites: NRSG 680A, B, or C.
A laboratory course offering clinical experience in selected settings to prepare for advanced nursing practice.
May be repeated to a maximum of 9 units with different topics.

## 682. Family Theories for Advanced Practice Nursing I

(3) F

Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites NRSG 682A, 682B.
Presents epidemiology, pathophysiology, clinical presentation, diagnosis, and management of common diseases across life span. Role of family nurse practitioner in health promotion and disease preventionemphasized.
Letter grade only (A-F)

## 682A. Family Clinical Studies for Advanced Practice Nursing I (3)

Prerequisites: Admission to graduate nursing program, NRSG 510, $520,530,540,550,560,596$ and clinical pre-test, or consent of instructor. Corequisite: NRSG 682, 682B.
Allows opportunity to apply theoretical knowledge in supervised clinical settings in family practice. An emphasisplaced on socialization into family nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours)

## 682B. Family Clinical Studies for Advance Practice Nursing II (3) F

Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites: NRSG 682, 682A.
Second of two courses that allows expanded theoretical knowledge in supervised clinical settings in family practice. Emphasisplaced on socialization into family nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours)
683. Family Theories for Advanced Practice Nursing II (3) S

Prerequisites: Admission to graduate nursing program and NRSG 682, 682A and 682B, or consent of instructor. Corequisites: NRSG 683A, 683B.
Presents epidemiology, pathophysiology, clinical presentation, diagnosis, and management of common diseases across life span. Role of family nurse practitioner in health promotion and disease preventionemphasized.
Letter grade only (A-F).

## 683A. Family Clinical Studies for Advanced Practice Nursing III (3) S

Prerequisites: Admission to graduate nursing program and NRSG 682, 682A and 682B, or consent of instructor. Corequisites: NRSG 683, 683B.
Allows additional opportunity to apply theoretical knowledge in supervised clinical settings in family practice. Emphasis placed on socialization into family nurse practitioner role.
Letter grade only (A-F) (Laboratory 9 hours)

## 683B. Family Clinical Studies for Advanced Practice Nursing IV (3) S

Prerequisites: Admission to graduate nursing program and NRSG 682, 682A and 682B, or consent of instructor. Corequisites: NRSG 683, 683A.
Second of two courses designed to allow additional opportunity to apply theoretical concepts and expand clinical knowledge.
Letter grade only (A-F). (Laboratory 9 hours)
684. Pediatric Theories for Advanced Nursing (3) F

Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596, or consent of instructor. Corequisites: NRSG 684A, 684B
Provides Pediatric Nurse Practioner student with theoretical frameworks for well child care. Focuses on preventive health care, well child management, professional issues and related research of children from infancy through adolescence.
Letter grade only (A-F)

## 684A. Pediatric Clinical Studies for Advance Practice Nursing I (3)

Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596, or consent of instructor. Corequisite: NRSG 684, 684B.
First clinical course of pediatric nurse practitioner program. Emphasison application of theory to preventative health care, management of well child and common pediatric problems.
Credit/No Credit grading only. (Laboratory 9 hours)

## 684B. Pediatric Clinical Studies for Advance Practice Nursing II (3)

Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560,596$ and or consent of instructor. Corequisite: NRSG 684, 684A
Second clinical course of pediatric nurse practitioner program. Emphasison application of theory to preventative health care, management of well child and common pediatric problems.
Credit/No Credit grading only. (Laboratory 9 hours)

## 685. Pediatric Theories for Advance Practice Nursing II (3)

Prerequisites: Admission to graduate nursing program and NRSG 684, 684A and 684B, or consent of instructor. Corequisites: NRSG 685A, 685B.
Diagnosis, treatment and management of common pediatric conditions and disorders by pediatric nurse practitioner utilizing a theoretical framework appropriate for pediatric nurse practitioner. Letter grade only. (A-F)

## 685A. Pediatric Clinical Studies for Advance Practice Nursing III (3)

Prerequisites: Admission to graduate nursing program and NRSG 684, 684A and 684B, or consent of instructor. Corequisite: NRSG 685, 685B.
First of two clinical course deals with application of theory related to assessment, diagnosis, and management by pediatric nurse practitioner of common pediatric health care problems in clinical setting.
Letter grade only. (A-F). (Laboratory 9 hours)

## 685B. Pediatric Clinical Studies for Advance Practice Nursing IV (3) S

Prerequisites: Admission to graduate nursing program and NRSG 684, 684A and 684B, or consent of instructor. Corequisites: NRSG 685, 685A.
Application of theory related to assessment, diagnosis, and management by pediatric nurse practitioner of common pediatric health care problems in clinical setting.
Letter grade only. (A-F). (Laboratory 9 hours)

## 686. Adult/Geriatric Theories for Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate nursing program, NRSG 510, $520,530,540,550,560,596$ and clinical pretest, or consent of instructor. Corequisite: NRSG 686A, 686B.
Epidemiology, etiology, differential diagnoses, management and prevention of selected health problems of adult/geriatric patient in primary, secondary and tertiary settings and role of nurse practitioner in these settings in a changing healthcare environment. Letter grade only (A-F)

## 686A. Adult/Geriatric Clinical Studies in Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate nursing program, NRSG 510, $520,530,540,550,560,596$ and clinical pretest, or consent of instructor. Corequisites: NRSG 686, 686B.
First of two designed to allow adult/geriatric nurse practitioner student to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. Emphasisplaced on beginning socialization into nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours).

## 686B. Adult/Geriatric Clinical Studies in Advance

 Practice Nursing II (3) FPrerequisites: Admission to graduate nursing program, NRSG 510, $520,530,540,550,560,596$ and clinical pretest, or consent of instructor. Corequisites: NRSG 686, 686A.
Second of two designed to allow adult/geriatric nurse practitioner student to apply theoretical knowledge in supervised clinical
practice with adult and geriatric patients. Emphasisplaced on beginning socialization into nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours).

## 687. Adult/Geriatric Theories for Advanced Practice Nursing II (3) S

Prerequisites: Admission to graduate nursing program and NRSG 686, 686A and 686B, or consent of instructor. Corequisites: NRSG 686A, 686B.
Epidemiology, etiology, differential diagnoses, management and prevention of additional selected health problems of adult/ geriatric patient in primary, secondary and tertiary settings, and a further delineation of role of nurse practitioner in these changing healthcare environment.
Letter grade only (A-F).

## 687A. Adult/Geriatric Clinical Studies in Advanced Practice Nursing III (3) S

Prerequisites: Admission to graduate nursing program and NRSG 686, 686A and 686B, or consent of instructor. Corequisites: NRSG 687, 687B.
First of two designed to allow adult/geriatric nurse practitioner student to apply theory into clinical practice with adult and geriatric patients. Emphasisplaced on continuing to socialize into nurse practitioner role.
Letter grade only (A-F). (Laboratory 9 hours).

## 687B. Adult/Geriatric Clinical Studies in Advanced Practice Nursing IV (3) S

Prerequisites: Admission to graduate nursing program and NRSG 686, 686A and 686B, or consent of instructor. Corequisites: NRSG 687, 687A.
Second of two designed to allow adult/geriatric nurse practitioner student to apply theory into clinical practice with adult and geriatric patients. Emphasisplaced on continuing to socialize into nurse practitioner role.
Letter grade only (A-F). (Laboratory 9 hours).

## 688. Psychiatric-Mental Health Theories for Advance

 Practice Nursing I (3) FPrerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites: NRSG 688A, 688B.
Study of pathology, diagnostic methods, indications for referral, and management for nurse practitioner students of medical, psychological, and social problems of clients of psychiatric facilities and community mental health agencies.
Letter grade only (A-F)
688A. Psychiatric-Mental Health Clinical Studies for Advance Practice Nursing I (3) F
Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites: NRSG 688, 688B.
First clinical practicum for nurse practitioner students thatfocused on application of mental health concepts. Theories from prerequisite and concurrent courses are applied and tested. Credit/No credit grading only. (Laboratory 9 hours)
688B. Psychiatric-Mental Health Clinical Studies for Advance Practice Nursing II (3) F
Prerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites: NRSG 688, 688A.
Second clinical practicum for nurse practitioner students thatfocused on application of mental health concepts. Theories from prerequisite and concurrent courses are applied and tested. Credit/No credit grading only. (Laboratory 9 hours)

## 689. Psychiatric-Mental Health Theories for Advance

 Practice Nursing II (3) SPrerequisites: Admission to graduate nursing program and NRSG $510,520,530,540,550,560$ and 596 , or consent of instructor. Corequisites: NRSG 688A, 688B.
Advanced study of pathology, diagnostic methods, indications for referral, and management for nurse practitioner students of medical, psychological, and social problems of clients of psychiatric facilities and community mental health agencies. Letter grade only (A-F)

## 689A. Psychiatric/Mental Health Clinical Studies for Advance Practice Nursing III (3) S

Prerequisites: Admission to graduate nursing program and NRSG 688, 688A and 688B, or consent of instructor. Corequisites: NRSG 689, 689B.
First supervised clinical practicum for nurse practitioner students focused on application of complex mental health concepts. Theories from prerequisite and concurrent nursing theory courses are applied and tested in clinical setting.
Letter grade only (A-F). (Laboratory 9 hours)
689B. Psychiatric/Mental Health Clinical Studies for Advance Practice Nursing III (3) S
Prerequisites: Admission to graduate nursing program and NRSG 688, 688A and 688B, or consent of instructor. Corequisites: NRSG 689, 689A.
Second supervised clinical practicum for nurse practitioner students focused on application of complex mental health concepts. Theories from prerequisite and concurrent nursing theory courses are applied and tested in clinical setting. Letter grade only (A-F). (Laboratory 9 hours)

## 692. Nursing Directed Project (1-4)

Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596 and consent of department graduate advisor.
Planning, preparation and completion of a directed project appropriate to advanced practice nursing.
May be repeated to a maximum of 4 units in different semesters. Letter grade only (A-F).

## 695. Professional Literature (3)

Prerequisites: NRSG 510, 520, 530, 540, 550,560, 596, 680 class series and NRSG 680L or 680 A/B class series, and advancement to candidacy, or consent of instructor and graduate advisor. Critical analysis and synthesis by comparative review of professional literature in nursing practice, theory, and research.
Not open for credit to students taking NRSG 698. Letter grade only (A-F).

## 698. Thesis (1-4)

Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596, consent of department graduate advisor.
Planning, preparation and completion of a thesis in clinical nursing. Letter grade only (A-F).

# NUTRITION AND DIETETICS 

College of Health and Human Services
Department of Family and Consumer Sciences

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Single Subject Credential Advisor
Margaret Lichty
Administrative Support Assistant
Lynisha McDuel
Administrative Support Coordinators
Isabel Alvarado, Kim Romar
Instructional Support Technicia
Bonnie Rice

## Bachelor of Science in Dietetics and Food Administration

The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in three option areas of study:

- Nutrition and Dietetics
- Food Science
- Hospitality Foodservice and Hotel Management

Specific degree and certificate information as well as option requirements are listed under each option alphabetically in this Catalog.

Requirements for the major include a minimum of 131 units for Nutrition and Dietetics. In addition to general education requirements (51 units), a minimum of 40 units in Family and Consumer Sciences is required, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is accepted by the University.

## Nutrition and Dietetics

Individuals choosing this option will concentrate their studies in the areas of nutritional science, medical nutrition therapy, community nutrition, food production and management of foodservice operations, chemistry, physiology, plus a variety of supporting course work in related disciplines. The Nutrition and Dietetics option with appropriate elective selection fulfills the American Dietetic Association (ADA) academic requirements for eligibility to apply for qualifying experiences required to become a Registered Dietitian. Career opportunities include: community nutrition programs, health clubs, private consulting, health and welfare agencies, program administration, health promotion, government agencies, hospitals and clinics, foodservice operations, public and private schools, research, and business and industry.

## Option in Nutrition and Dietetics (code FCS_BS01) (131 units)

ANTH 412I or HCA 422I or GEOG 307I or H SC 420; BIOL 207 or 342 and 342L; BIOL 260 or ED P 419 or H SC 403 or IS 310; CHEM 111A, 327, 448, 449; COMM 110; ED P 373I; ENGL 100; ENGL 101 or 317; HRM 361 or PSY 381; IS 233 or 300 or FCSE 387; MICR 200; PSY 100; SOC 100; CAFF 321; CDFS 312I; FCSE 299, 486, 499; NUTR 132, 234, 331A, 331B, 336, 436, 436L, 438, 461, 492K or 3 units of FCSE 497; FSCI 332; HFHM 173, 235, 275. Additionally, a minimum of 6 units of electives is selected in consultation with a Nutrition and Dietetics faculty advisor. Recommended electives include: HFHM 375, 477; FCSE 497; NUTR 433, 439, 492K. If a stronger foundation in Chemistry is desired, CHEM 320A and 320B may be selected instead of CHEM 327. If a stronger foundation in Biochemistry is desired, CHEM 441A and CHEM 441B may be selected instead of CHEM 448.

Students who wish to take the Nutrition and Dietetics Option as a Pre-professional degree (e.g., medical, etc.) should check with the appropriate programs to verify specific requirements.

## The American Dietetic Association (ADA) Didactic Program in Dietetics

The ADA Didactic (Academic) Program in Dietetics (DPD) is designed to provide students with a foundation of knowledge and skills in dietetics that will enable them to perform successfully in a dietetic internship. The DPD is granted accreditation by the American Dietetic Association Commission on Accreditation for Dietetics Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. It is the responsibility of the student to consult with the ADA DPD Director to verify current ADA requirements to become a Registered Dietitian.

Students who choose to meet ADA academic requirements must select HFHM 375 and 477 as electives in their major.

Students must receive a grade of "C" or better in the DPD courses to receive verification of completion of the ADA program. Approval of a student's academic program by the CSULB DPD Director requires that the student complete courses HFHM 477; NUTR 436L and 438 at CSULB.

## Courses (NUTR)

## LOWER DIVISION

## 132. Introductory Nutrition (3)

Prerequisite: One of the Foundation courses (may be taken concurrently).
Essential nutrients, their physiological functions and human needs during the life cycle; food sources as applied to selection of an adequate diet; problems encountered providing food to meet nutritional needs; food additives and consumer protection.
Not open for credit to students with credit in FCS 232. (Lecturediscussion 3 hours) (CAN FCS 2)
234. Orientation to Dietetics and Food Administration (2)

Role of the professional in dietetics and food administration; orientation to career opportunities in Food, Nutrition and Foodservice Systems Management; personnel and physical facilities, including equipment in health care and mass feeding programs.
(Lecture-discussion 1 hour, activity 2 hours.)

## UPPER DIVISION

## 331A. Fundamentals of Human Nutrition (3)

Prerequisites: NUTR 132, BIOL 207, CHEM 302 or 327 or equivalent.
Nutritional needs with emphasis on the physiological and chemical foundation for these needs; factors influencing nutrient needs. (Lecture-Discussion 3 hours.)

## 331B. Fundamentals of Human Nutrition (3)

Prerequisites: NUTR 331A.
Nutritional needs with emphasis on changes through the life cycle. Introduction to dietary modifications in various pathological conditions. Introduction to nutrition assessment and nutrition education techniques
(Lecture-discussion 3 hours.)

## 336. Cultural Aspects of Food and Nutrition (3)

Prerequisites: PSY 100 or SOC 100 or ANTH 120 or equivalent; NUTR 132.

Cross-cultural study of food and nutrition. Factors such as religion, food supply and socioeconomic status are considered as they influence nutritional status and food intake in various populations throughout the world.
(Lecture 3 hours.)

## 339. Metabolic Functions of Nutrients (1)

Prerequisites: CHEM 302, BIOL 207, and consent of instructor. Metabolic role of nutrients in the human body; practical application of nutrition to patient care.
Open to Nursing Majors only. (Activity 2 hours.)

## 430. Nutrition and Health (3)

Prerequisite: Upper-division standing.
Intensive study of nutrition including evaluation of current trends in food and nutrition. Designed for students in health education, elementary and secondary education, social service and other elective students.

Not open for credit to family and consumer sciences majors. (Lecture-discussion 3 hours.)

## 433. Nutrition in the Life Cycle (3)

Prerequisite: NUTR 132 or 331A or equivalent
Nutrition throughout the life cycle. Interaction of physical, biological, cultural and psychological factors involved in assessing and maintaining optimal nutritional health. Community nutrition programs introduced
(Lecture-discussion 3 hours.)
*436. Advanced Nutrition (3)
Prerequisites: NUTR 331B, CHEM 448, 449 (may be taken concurrently).
Metabolism of proteins, fats, carbohydrates, minerals and vitamins; interrelationship of nutrients; principles of determining nutritional requirements of individuals.
(Lecture-discussion 3 hours.)

## 436L. Nutritional Status Assessment Techniques (3)

Prerequisites/Corequisites: NUTR 436 and CHEM 449.
Designed to provide training in nutrition assessment and nutrition counseling. Use of procedures for interviewing, counseling, and instructing patients/clients in various settings comparable to those encountered in dietetic practice. Includes laboratory methods for collection and interpretation of demographic, dietary anthropometrics, biochemical, and clinical data.
Letter grade only (A-F). (Discussion 1 hour, Laboratory 3 hours, Clinical Practice 3 hours).

## *438. Medical Nutrition Therapy (3)

Prerequisites: NUTR 436, 436L (may be taken concurrently). Therapeutic nutrition. Metabolic changes in specific pathological conditions; dietary modifications used for treatment.
(Lecture-discussion 3 hours.)
*439. Nutrition and Aging (3)
Prerequisites: NUTR 132 or BIOL 207 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older people.
Same course as GERN *439. (Lecture-discussion 3 hours.)

## 461. Community Nutrition (3)

Prerequisites: Upper-division standing, NUTR 331B.
Survey of nutrition programs in the community. Techniques of program planning, implementation, management and evaluation Letter grade only (A-F). (Lecture-activity 3 hours.)

## 466. Biochemical and Hormonal Adaptations to Physical

 Activity (3)Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration.
Study of biochemical and hormonal changes that occur as result of acute and chronic physical activity. Emphasis placed on application of concepts to development of exercise training programs.
Letter grade only (A-F). Same course as KIN 466. (Seminar 3 hours.)

## 492K. Internship in Nutrition and Dietetics (3)

Prerequisites: Student must be a Family and Consumer Sciences: Nutrition and Dietetics major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Nutrition and Dietetics; and HFHM 275, NUTR 331B and FSCI 332. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours.)

## OCEAN STUDIES INSTITUTE

College of Natural Sciences and Mathematics

## Director

Richard Pieper

## Location

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Terminal Island, CA 90731

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The Ocean Studies Institute was created in 1972 to coordinate teaching, research and community service in ocean studies on member campuses. Members include Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, and San Marcos. The Institute does not offer degrees, but it serves as an administrative liaison to facilitate degree programs offered on member campuses.

The Institute operates a 76-foot research vessel for teaching and research purposes, obtains research grants and contracts, performs research, and is responsible for curriculum planning and facilities acquisition. Presently the Institute serves over 35 departments across eight campuses.

The courses and research in which the Institute is active reflect the broad applied approach of interdisciplinary, mission-oriented projects in harbors and the coastal zone.

## Courses (OSI)

## UPPER DIVISION

## 313. Marine Invertebrate Zoology (4)

Prerequisite: BIOL 211A,B.
Basic taxonomy, morphology, ecology, and distribution of invertebrates, excluding insects; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 345. Physiology of Marine Animals (4)

Prerequisite: BIOL 211A,B.
Comparison of the fundamental physiological processes of the major marine phyla, both invertebrate and vertebrate. Laboratory and field investigations will be directed toward marine animals living in the local waters.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 353. Marine Biological Processes (4)

Prerequisite: BIOL 211A,B.
Study of pelagic and benthic marine ecosystems, including human influences.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 417./517. Marine Benthic Invertebrates of Santa Catalina Island (4)

Prerequisite: OSI 313 or 353. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517.)
Topics include benthic community structure and function, benthic-pelagic coupline, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.
Letter grade only (A-F).(Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 419./519. Marine Ichthyology (4)

Prerequisite: OSI 353. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519.)
Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.
Letter grade only (A-F).(Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 420./520. Ecology of Marine Fishes (4)

Prerequisite: OSI 419/519. (Undergraduates enroll in OSI 420; graduates enroll in OSI 520.)
Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes.
Course fee may be required. Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

## 425./525. Marine Phycology (4)

Prerequisite: BIOL 211A, B. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525.)
Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.
Letter grade only (A-F).(Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 455./555. Marine Ecological Processes (4)

Prerequisite: OSI 353 or BIOL 350; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555.)
Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 6 hrs.) Course fee may be required.

## 458./558. Ecology of Southern California Marine

 Plankton (4)Prerequisite: OSI 353. (Undergraduates enroll in OSI 458; graduates in OSI 558.)
Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 460./560. Oceanographic Techniques (4)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 460; graduates enroll in OSI 560.)
An interdisciplinary survey of techniques and procedures used in collection of oceanographic data in the fields of biology, chemistry, geology, and physics. Students become familiar with oceanographic equipment and methodologies that emphasize on-the-job training aboard ship and in the laboratory.
Letter grade only (A-F). (Lecture 2 hrs .; laboratory and field 6 hrs .) Course fee may be required.

## 490./590. Special Topics in Ocean Studies (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590.)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics to be announced in the Schedule of Classes. Letter grade only (A-F). (Lecture 1-3 hrs.) Course fee may be required.
490L./590L. Laboratory in Special Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L.)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics to be announced in the Schedule of Classes. Letter grade only (A-F). (Laboratory 3-9 hrs.) Course fee may be required.

## 496. Undergraduate Directed Research (1-3)

Prerequisite: Consent of instructor. Not available to graduate students.
Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a mini-symposium and a report.
Letter grade only (A-F).

## GRADUATE LEVEL

## 517./417. Marine Benthic Invertebrates of Santa Catalina Island (4)

Prerequisite: OSI 313 or 353. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517.)
Topics include benthic community structure and function, benthicpelagic coupling, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.
Letter grade only (A-F). (Lecture 2 hrs, laboratory and field 6 hrs.) Course fee may be required.

## 519./419. Marine Ichthyology (4)

Prerequisite: OSI 353. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519.)
Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs .) Course fee may be required.

## 520./420. Ecology of Marine Fishes (4)

Prerequisite: OSI 519/419. (Undergraduates enroll in OSI 420; graduates enroll in OSI 520.)
Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 525./425. Marine Phycology (4)

Prerequisite: BIOL 211A, B. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525.)
Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 555./455. Marine Ecological Processes (4)

Prerequisite: OSI 353 or BIOL 350; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555.)
Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 558./458. Ecology of Southern California Marine Plankton (4)

Prerequisite: OSI 353. (Undergraduates enroll in OSI 458; graduates enroll in OSI 558.)
Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

## 560./460. Oceanographic Techniques (4)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 460; graduates enroll in OSI 560.)
An interdisciplinary survey of techniques and procedures used in collection of oceanographic data in the fields of biology, chemistry, geology, and physics. Students become familiar with oceanographic equipment and methodologies that emphasize on-the-job training aboard ship and in the laboratory.
Letter grade only (A-F). (Lecture 2 hrs .; laboratory and field 6 hrs .) Course fee may be required.

## 590./490. Special Topics in Ocean Studies (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590.)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics to be announced in the Schedule of Classes. Letter grade only (A-F). (Lecture 1-3 hrs.) Course fee may be required.

## 590L./490L. Laboratory in Special Topics in Ocean Studies (1-3)

Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L.)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics to be announced in the Schedule of Classes. Letter grade only (A-F). (Laboratory 3-9 hrs.) Course fee may be required.

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor and graduate standing. Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a minisymposium and a report.
Letter grade only (A-F).

# PEACE STUDIES <br> College of Liberal Arts 

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## Certificate Program in Peace Studies (code COLACT02)

The Certificate Program in Peace Studies is designed for students who are concerned about issues of peace, conflict, and justice in contemporary society; and who wish to develop skills to promote peace and constructive conflict management within their individual lives, families, communities, and social systems. Students will have the opportunity to explore past and present conflicts that inhibit the achievement of peace, and will have the opportunity to enlarge their understanding of global and human diversity problems and their solutions. Student also will be challenged to discover the processes that create peace among people, and to recognize that while the expression of conflict is natural and normal for humans, it need not lead to destruction, violence, or war. Effective conflict management can generate productive, peaceful ends. Students will be empowered to believe they can make a difference. Overall, students will enhance their understanding of human beings, the causes of their conflicts with each other in a host of contexts, and past, present, and future methods of managing those conflicts.

This certificate can be earned in conjunction with any baccalaureate or graduate degree, can be earned through the General Education Pathway in Conflict \& Peace Studies while simultaneously meeting all general education requirements, and should be especially useful for students preparing for careers in humanities, education, business, government, law, and social service.

## Requirements

Twenty-four (24) units in a program approved by the Director of Peace Studies, to include the following:

1. Core Theory Course (3 units): Take one of the following: I/ST 317I, POSC 371
2. Core Skills Course ( 3 units): Take one of the following: COMM 411, SW 491
3. Elective Courses ( 15 units): Take at least one course from each of the following groups, and then one additional course from any of the groups.
Group A: Perspectives on Peace, Conflict, Violence, and War (3 units minimum): ANTH 305I; COMM 490; CRIM 101; HIST 304, 377, 495; I/ST 318, 355; POSC 220, 371, 455; PHIL 351; PSY 350I
Group B: Laws, Rights, Responsibilities in Peace and Conflict (3 units minimum): COMM 4411; PHIL 352, 376; POSC 412
Group C: Culture, Race, Gender Influences on Peace and Conflict (3 units minimum): ANTH 315, 311I; B/ST 325; COMM 330, 412; HIST 3091; LING 470; SOC 346; SPAN 493 or SPAN 593 or HIST 490F; WIST 401, 430
Group D: Empowerment and Peace-Building (3 units minimum): COMM 410, 421; CAFF 309I or FIN 309I; EDP 434B; FEA 486I; HDEV 364; H SC 429; NRSG 4811; PSY 336; SOC 427; SW 423
4. Peace Project (3 units, optional): Students in the Certificate program only should complete three units of an independent study project during their senior year with any Peace Studies faculty. Students who are simultaneously completing the General Education pathway in Conflict \& Peace Studies need to take an additional 300 - or 400 -level GE course from groups A, B, C. or $D$ above to complete the 24 required units in this Certificate.
Exceptions or substitutions may be made only with the approval of the Director of the Peace Studies Program.

## PHILOSOPHY <br> College of Liberal Arts

Department Chair<br>Lawrence Nolan<br>Department Office<br>McIntosh Humanities Building (MHB), Rm 917<br>Telephone<br>(562) 985-4331<br>Website<br>www.csulb.edu/~philos<br>FAX<br>(562) 985-7135<br>Email<br>philos@csulb.edu<br>Faculty<br>\section*{Professors}<br>Daniel Guerriére (Emeritus), Edward Quest (Emeritus), G.A. Spangler (Emeritus), Paul C.L. Tang, Julie Van Camp

## Associate Professors

William M. Johnson (Emeritus), Lawrence Nolan, Charles Wallis

## Assistant Professors

Max Rosenkrantz, Ravi K. Sharma, Wayne Wright
Undergraduate Advisor
Lawrence Nolan
Graduate Advisor
Ravi K. Sharma
Pre-Law Advisor
Julie Van Camp
Administrative Support Coordinator
Donna Reese

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Philosophy (code PHILBA01) (120 units)

The undergraduate Philosophy program challenges students to think rigorously about some of the most profound questions people consider: "What is most important in a human life?"; "What can I know?"; "Does God exist?"; "Do human beings have free will?"; "What are the guidelines for morality?"; "What is 'the soul?', or 'the mind'?" These and other questions are raised in courses
in special areas of philosophical concern such as logic, theory of knowledge, ethics, metaphysics, philosophy of religion, philosophy of science, and aesthetics. They are also raised in their historical context in courses which focus on great philosophers such as Plato, Aristotle, Kant, the great "Rationalists" and the great "Empiricists." In addition, the Philosophy curriculum encourages students to examine our contemporary situation (with such courses as Existentialism, Phenomenology, Philosophy of Language, and Political Philosophy), and to extend their thinking with the philosophies of other cultures (such as those of China, Japan, and India).

In addition, the philosophy curriculum examines our contemporary situation and extends our thinking with the philosophies of other cultures.

The Philosophy Pre-law Program provides undergraduates with a course of study which emphasizes the development of skills in reasoning and argumentation, in linguistic and ethical analysis, and in clear and precise communication. The Department's Center for Applied Ethics brings guest speakers to the campus and sponsors conferences, research, and new courses in medical ethics and business ethics. The Department's Center for the Advancement of Philosophy in Schools (CAPS) places advanced philosophy students into area schools to promote philosophy for children. The Department is developing courses and other programs in cognitive science, bringing together the insights of epistemology, logic, psychology, and computer science. The MA program prepares students for teaching in the community colleges and for doctoral programs in philosophy.

## Requirements

A minimum of 36 units in philosophy divided as follows:
Lower Division: PHIL 203, 204, and 270.
Up to 12 lower-division units may be counted toward the major, including either PHIL 100 or $160 / 160 \mathrm{~W}$.

Upper Division: A minimum of 24 units in philosophy, including at least two courses ( 6 units) from each of the following groups:

History of Philosophy: PHIL 306, 413, 414, 416, 417, 418, 419, 421, 422, 423, 424, 425, 490, 491, 492
Logic, Metaphysics, Epistemology: PHIL 330, 342, 381I, 382, 470, 482I, 483, 484, 493
Values and Evaluation: PHIL 302I, 351, 352I, 354, 360, 361, 362I, 363, 401, 403I, 405I (formerly 305), 451I, 452I, 455, 461I, 489, 496
The required 6 upper-division units remaining are to be selected from philosophy courses with the advice and consent of the student's departmental advisor, and may include PHIL 497H and 498H.

## Pre-Law Emphasis

The pre-law emphasis requires the same minimum 36 units required for the major. Prelaw students should include at least four of the following in their course of study: PHIL 351, 352I, 363, 451I, 452I, 489.

## Honors in Philosophy

The Honors in Philosophy program provides qualified undergraduate philosophy majors with an opportunity to do independent research with a faculty member on a topic of interest to the student and to present the results of that study to other students in a seminar format. The Program has two curricular components:

1. a year-long, two-semester directed studies course
(PHIL 498H: Undergraduate Honors Thesis) in which the student learns about advanced research techniques and writes an undergraduate thesis under the close supervision of a faculty member, and
2. a seminar (PHIL 497H: Undergraduate Honors Seminar) in which honors students meet weekly to discuss work in progress and present a final thesis. The Seminar is designed each year with readings, discussions, and critiques of student work around the themes of the honors student theses projects that year.
To be eligible for the program, students must:
3. have a 3.3 GPA in the philosophy major and a 3.0 GPA overall;
4. successfully complete all lower-division courses for the major (PHIL 203, 204, and 270);
5. successfully complete at least nine (9) units of upperdivision philosophy courses (at least six [6] units at CSULB).
6. obtain written agreement from a philosophy faculty member to serve as the Honors Thesis Advisor Students enroll in PHIL 498H (Undergraduate Honors Thesis) in Fall and Spring (3 units each semester), and in PHIL 497H (Undergraduate Honors Seminar) in Spring ( 3 units), for a total of 9 units in the program. Students who have been admitted to the honors program and have successfully completed these requirements, along with the regular requirements for the Major in Philosophy, will graduate with Honors in Philosophy.

## Minor in Philosophy (code PHILUM01)

The minor in philosophy provides a structured yet flexible program for the student majoring in a different discipline, but who is interested in philosophy either as an adjunct to the degree major or as a foundation for the student's future intellectual life.

The Minor in Philosophy is available to any nonPhilosophy major.

## Requirements

A minimum of 18 units in philosophy, divided as follows:
Lower Division: PHIL 203, 204, and 270.
Upper Division: A minimum of 9 units in philosophy, including at least one course (3 units) from each of the following groups:

History of Philosophy: PHIL 306, 413, 414, 416, 417, 418, 419, 421, 422, 423, 424, 425, 490, 491, 492
Logic, Metaphysics, Epistemology: PHIL 303, 342, 381I, 382, 470, 482I, 483, 484, 493
Values and Evaluation: PHIL 302I, 305, 351, 352I, 354, 360, 361, 362I, 363, 401, 403I, 405I, 451I, 452I, 455, 461I, 489, 496

## GRADUATE PROGRAMS

## Master of Arts in Philosophy (code PHILMA01)

## Entrance Requirements

1. A bachelor's degree with a major in philosophy; or
2. A bachelor's degree with a minimum of 24 units of upper division philosophy courses. These courses must be comparable to those required for the B.A. in philosophy at this University. (Deficiencies will be determined by the Graduate Advisor after consultation with the student and after study of transcript records.) Students who do not meet these conditions may enter as provisional graduate students. Prospective students must see the Graduate Advisor for assessment and to plan a program. Departmental reader positions are sometimes available for qualified persons, as are Graduate Assistantships. A reader works closely with a member of the faculty, but is not responsible for instruction. Application for these positions can be made to the Chair of the Philosophy Department.

## Advancement to Candidacy

1. The graduate student will be expected to demonstrate proficiency in the areas of epistemology, metaphysics, ethics and symbolic logic. (A grade of "B" in a semester course in each of these areas is a standard way of demonstrating proficiency.)
2. The graduate student who expects to become a candidate for the Master of Arts degree in Philosophy will be required to pass a Basic Qualifying Examination (BQE). Normally, the student must complete this examination early in graduate study.
3. Students should attempt to be Advanced upon completion of 6 units (preferably no more than 9 units) in the Program. Fulfillment of the Graduation Writing Assessment Requirement (GWAR) is required for Advancement.
4. Although there is no formal language requirement, the Philosophy Department may require the student to demonstrate a foreign langhuage proficiency whenever at the department's discretion a language proficiency is appropriate to the area of study.
5. The student's graduate program must be approved by the Graduate Advisor, the Department Chair, and the College Associate Dean of Graduate Studies.

## Requirements

1. The student's graduate program must consist of not less than 30 units of acceptable upper division and graduate courses, of which at least 24 units must be in philosophy. The remaining 6 units must be chosen in conference with the student's faculty advisor, and may be taken either in philosophy or in another field of study closely related to the candidate's educational objectives. The program must include a minimum of 18 units of graduate courses, with a minimum of 6 units from the 600 series. PHIL 697 and 698 may not count toward fulfillment of the 600 series minimum requirement.
2. A thesis and oral defense thereof or a set of three comprehensive examinations.

## The Center for Medieval and Renaissance Studies

The Center for Medieval and Renaissance Studies offers two programs to students who want to study medieval and Renaissance political and social history, art, literature, philosophy, religion, music, and drama. Undergraduate students can pursue a Certificate or a minor in Medieval and Renaissance Studies. Graduate students can pursue a Certificate in Medieval and Renaissance Studies. Interested students should turn to the catalog section entitled "Medieval and Renaissance Studies" and/or contact the program directors in MHB 512.

## Courses (PHIL)

## LOWER DIVISION

100. Introduction to Philosophy (3)

Prerequisites/Corequisites, any course from GE Foundation categories A. 1 (Written English), category A.2. (Oral
Communication) or Category A.3. (Critical Thinking), which may be taken concurrently.
Critical analysis of the history, methods, and major problems of philosophy.
(CAN PHIL 2)

## 160. Introductory Ethics (3)

Prerequisites/Corequisites: any course from GE Foundation categories A. 1 (Written English), category A.2. (Oral
Communication) or Category A.3. (Critical Thinking), which may be taken concurrently.
Concepts of right and wrong, good and bad, and the application of moral principles to problems of everyday life.
Not open for credit to students with credit in PHIL 160W. (CAN PHIL 4)

## 160W. Introduction to Ethics (4)

Prerequisite: Any course from GE Foundation Category A. 1 (Written English), Category A. 2 (Oral Communication), or Category A. 3 (Critical Thinking), which may be taken concurrently.

Concepts of right and wrong, good and bad, and application of moral principles to problems of life. Exercises, activities, and discussion to develop oral and written critical thinking and analytical skills.
(Lecture 3 Hours, Workshop 1 hour). (CAN PHIL 4)
170. Critical Reasoning (3)

Prerequisite: Completion of GE Foundation requirements Category A. 1 (Written English), which may be taken concurrently.

Elements of clear, straight, orderly and valid thought, including deductive and inductive reasoning and the accurate use of language. This course explores practical applications of logic. (CAN PHIL 6)

## 203. History of Early Western Philosophy (3)

Prerequisite: Completion of GE Foundation requirements.
From Thales to the Renaissance including the systems of Socrates, Plato and Aristotle, and their influence on European philosophy through the medieval period.

## 204. History of Modern Western Philosophy (3)

Prerequisite: Completion of GE Foundation requirements.
Western philosophy from Descartes to Kant, including the development of modern scientific processes, and the philosophical systems of empiricism, rationalism, transcendental idealism, etc.

## 270. Symbolic Logic I (3)

Introduction to the formal techniques of evaluating arguments.

## 296. Methods of Philosophical Study (3)

Prerequisite: Three units in Philosophy.
Course prepares the student for philosophical study through education in its research methods and technical vocabulary, by instructing students how to write a successful philosophical essay, and explaining the scope and nature of some of the central issues of philosophy.

## Early Philosophy

306. Philosophies of China and Japan
421./521. Plato
422./522. Aristotle
490./590. Special Topics - Early Philosophy

## Modern Tradition

413./513. Continental Rationalism
414./514. British Empiricism
423./523. Kant
424./524. Hegel
425./525. Wittgenstein
491./591. Special Topics - The Modern Tradition

## Twentieth Century Philosophy

416./516. Pragmatism
417./517. Phenomenology
418./518. Existentialism
419./519. Analytic Philosophy
492./592. Special Topics - Twentieth Century Philosophy

## Metaphysical Studies

330. Philosophy of Religion
331. Metaphysics
483./583. Philosophical Psychology
493./593. Special Topics: Metaphysical Studies

## Epistemological Studies

3811. Philosophy of Science
3812. Theory of Knowledge

482I. Introduction to Cognitive Science

## Studies in Logic and Semantics

470. Symbolic Logic II
471. Philosophy of Language

## Studies in Value and Evaluation

351. Political Philosophy

352I. Philosophy of Law
361. Philosophy of Art and Beauty

362I. Ethics and Computer Technology
363. Ethical Theory
401. Philosophy in Education

403I. Medical Ethics
4051. Philosophy in Literature

451I. Liberty and Justice: Race, Ethnicity, and Gender in American Law
452I. Law, Philosophy, and the Humanities
455. Philosophical Perspectives on Sex and Love
4611. Diversity in Criticism and Analysis of the Arts
489. Philosophy Internship/Pre-Law
496./596. Special Topics - Value and Evaluation

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 306. Philosophies of China and Japan (3)

Prerequisite: Completion of GE Foundation requirements.
Historical and critical study of the philosophical thought of China and Japan.

## 330. Philosophy of Religion (3)

Prerequisite: Completion of GE Foundation requirements.
Nature and function of religion and of fundamental religious concepts and ideals.

## 342. Metaphysics (3)

Prerequisite: 3 units of philosophy or consent of instructor.
Problems of ontology and cosmology including such concepts as matter and energy, time and space, evolution and causality.

## 351. Political Philosophy (3)

Prerequisites: Completion of GE Foundation requirements, and Upper Division standing.
Analysis of fundamental political concepts such as the legitimacy of government, the relation of justice to coercive power, the morality of war, political obligation, and sovereignty; and/or a study of political ideologies such as socialism, classical liberalism, and conservatism.

## 3521. Philosophy of Law (3)

Prerequisite: Completion of GE Foundation requirements.
Study of the historical development of the philosophy of law and examination of the problems in the field ranging from general theories to analysis of fundamental legal concepts and normative issues.

## 360. Environmental Ethics (3)

Look at ecological problems. Survey positions held by great philosophers made. Current ecological problems will be looked at from the points of view of the ethical positions studied.
Not open for credit to students with credit in E/ST 360. Letter grade only (A-F).

## 361. Philosophy of Art and Beauty (3)

Prerequisites: Completion of GE Foundation requirements, and Upper Division standing.
Discussion of central problems in aesthetics, such as possibility of objectivity in criticism, modern and traditional definitions of a work of art, truth and meaning in the fine arts, natural beauty and its relationship to excellence in music, architecture, etc.
362I. Ethics and Computer Technology (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Speculative and critical examination of moral dilemmas, legal issues, and social values pertaining to new developments in computer technology, with particular emphasis on how computer technology informs, and is informed by, human relationships and human needs.

## 363. Ethical Theory (3)

Prerequisite: 3 units of philosophy.
In-depth discussion of such issues as obligation, responsibility,
social justice, and personal ideals.

## 381. Philosophy of Science (3)

Prerequisite: Completion of GE Foundation requirements.
Problems, methods and fundamental concepts of the sciences, including the relationships of the sciences to each other, to mathematics and to philosophy.

## 382. Theory of Knowledge (3)

Prerequisite: Three units of philosophy.
Investigation of such concepts as knowledge, belief, certainty. Critical study of theories concerning such issues as our knowledge of the external world, the past, other minds.

## 4001. Business Ethics (3)

Prerequisites: Completion of the Foundation, at least one Explorations course.
Study types of ethical dilemmas that take place in business organizations. Acquire concepts and tools needed to manage these complex value conflicts for the well being of individuals, organizations, and society. Same course as CBA 400I. Letter grade only (A-F).

## 401. Philosophy in Education (3)

Prerequisites: Completion of the GE Foundation; at least six units of philosophy.
Read and discuss philosophical works on education, analyze historical and contemporary reasons for common exclusion of philosophy from K-12 curriculum, explore ways of integrating philosophy into K-12 curriculum. Student placed in local school district classroom to lead weekly philosophy sessions. Servicelearning.

## 403I. Medical Ethics (3)

Prerequisites: Completion of the 13-unit Foundation; at least one Explorations course.
Covers main areas of bioethics: reproductive rights and liberties, definitions of health, disease, and disability, end of life care, distribution of health care, goals of health care. Philosophical texts, journal articles from medical humanities, ethics, medicine, and case studies used.

## 405I. Philosophy in Literature (3)

Prerequisites: Completion of the 13-unit Foundation; at least one Exploration course in philosophy, literature, theater arts; upperdivision standing required.
Intensive exploration of philosophical ideas in selected literature with special attention to both philosophical and literary ways of reading and appreciating a text.
Not open for credit to students with credit in PHIL 305.

## 413./513. Continental Rationalism (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Descartes, Spinoza and Leibniz.

## 414./514. British Empiricism (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Locke, Berkeley, and Hume.

## 416./516. Pragmatism (3)

Prerequisite: Three units of philosophy or consent of instructor.
Development of pragmatism as exemplified in the philosophies of Peirce, James, Dewey and Mead.

## 417./517. Phenomenology (3)

Prerequisites: Six units of philosophy or consent of instructor.
Study of one of the major movements of contemporary philosophy. Themes treated may include knowledge, meaning, emotionality, embodiment, language, sociality, freedom and religion. Philosophers treated may include Husserl, Scheler, Heidegger, Merleau-Ponty and Ricoeur.

## 418./518. Existentialism (3)

Prerequisites: Three units of philosophy or consent of instructor.
Intensive study of such issues as self-as-existence, freedom and responsibility in their ethical, religious, political and aesthetic dimensions. Philosophers treated may include Kierkegaard, Nietzsche, Marcel, Jaspers, Sartre and Camus.

## 419./519. Analytic Philosophy (3)

Prerequisites: Six units of philosophy to include PHIL 270, or consent of instructor.
Analysis of major movements in development of AngloAmerican philosophy in twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Study of contributions of such philosophers as Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, Strawson, and Quine.
Letter grade only (A-F).
421./521. Plato (3)

Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Plato's thought, based primarily on readings from his works.

## 422./522. Aristotle (3)

Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Aristotle's thought, based primarily on readings from his works.

## 423./523. Kant (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Intensive study of Kant's Critique of Pure Reason.
424./524. Hegel (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Study of Hegel's Philosophy of Mind and Logic, and selected writings by Hegel and other topics.

## 425./525. Wittgenstein (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of the later philosophy of Wittgenstein, centering on Philosophical Investigations.
451I. Liberty and Justice: Race, Ethnicity, and Gender in American Law (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; and 6 units of philosophy, or consent of instructor. Junior standing required; Senior standing recommended.
Philosophical and legal analysis of how liberty and justice for different races, ethnic groups and genders have been treated in American law.

## 452I. Law, Philosophy, and the Humanities (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing (junior standing required; senior standing recommended), six units of philosophy or consent of instructor.
A comparison of how the law is considered by various disciplines; primary focus is on philosophical methods and legal methods, with some consideration of other humanities disciplines, such as literature.

## 455./555. Philosophical Perspectives on Sex and Love (3)

Prerequisite: 6 units of philosophy or consent of instructor.
Philosophical perspectives on sex and love explores philosophical issues concerning sex, gender and love through readings and
discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination.
Same course as W/ST 455.
461I. Diversity in Criticism and Analysis of the Arts (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing (junior standing required; senior standing recommended).
Philosophical and critical consideration of the arts by different races, ethnic groups, and genders in the United States.

## 470./570. Symbolic Logic II (3)

Prerequisites: PHIL 270, or consent of instructor.
A philosophical consideration of deductive systems.
4821. Introduction to Cognitive Science (3)

Prerequisites: Completion of all Foundation courses; at least one Explorations course; upper-division standing; at lease six units in two areas chosen from Computer Science, Linguistics, Philosophy, and Psychology.
Introduction to cognitive science including historical development, foundational philosophical presuppositions, core topics, underlying theoretical framework, explanatory goals, different methodologies and theoretical contributions of its constitutive disciplines.
Same course as PSY 382I.

## 483./583. Philosophical Psychology (3)

Prerequisites: Six units of philosophy or consent of instructor.
Nature of the mind. Psychological concepts such as intention, consciousness, action, motive, imagination, belief and purpose.

## 484./584. Philosophy of Language (3)

Prerequisites: Six units of philosophy or consent of instructor. Philosophical thought about language and meaning.

## 489. Philosophy Internship/Pre-Law (3-6)

Prerequisites: Consent of Philosophy Department Chair; completion of a minimum of 15 upper-division units required for the Philosophy major.
Internship with private organizations and governmental agencies. A CSU
Summer Internship in Washington, D.C. meets requirement. Work done under the joint supervision of the program sponsor and CSULB Philosophy Pre-Law Advisor. Mid-term and final report and internship conferences are required.

## 490./590. Special Topics: Early Philosophy (3)

Prerequisites: Six units of philosophy or consent of instructor.
Detailed and intensive study of figures, periods or issues in ancient or medieval philosophy.
Specific issues, period or figures will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 491./591. Special Topics: Modern Tradition (3)

Prerequisites: Six units of philosophy or consent of instructor. Detailed and intensive study of significant philosopher or of some issue or theme of modern (1600-1900) philosophical era.
Specific titles will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 492./592. Special Topics: Twentieth Century Philosophy

 (3)Prerequisites: Six units of philosophy or consent of instructor.
Detailed and intensive study of a significant philosopher or of a school or movement of the twentieth century.
Specific title will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 493./593. Special Topics: Metaphysical Studies (3)

Prerequisites: Six units of philosophy or consent of instructor.
Seminar study of selected metaphysical topic. Sample topics:
Time, Personal Identity, Philosophical Theology, Philosophy of Action, Process Philosophy.
Specific title will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.
496./596. Special Topics: Value and Evaluation (3)

Prerequisites: Six units of philosophy or consent of instructor.
Seminar study of a selected topic in value or evaluation. Sample topics: Theories of Value, Freedom and Determinism.
Specific topics will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics.

## 497H. Undergraduate Honors Seminar (3)

Prerequisites: 1) Admission to the undergraduate Honors Program in Philosophy. 2) Undergraduate Honors Thesis (PHIL 498) or (with consent of instructor) taken concurrently.
A capstone seminar designed to prepare exceptional undergraduate majors for graduate studies in philosophy and other disciplines. Complements Undergraduate Honors Thesis (PHIL 498).

Letter grade only (A-F).

## 498H. Undergraduate Honors Thesis (3)

Prerequisites: Admission to the undergraduate Honors Program in Philosophy.
A Directed Studies course on a topic chosen by the student in consultation with instructor. Complements, and usually taken before, PHIL 497, undergraduate Honors Seminar.
May be repeated to a maximum of 6 units.

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 513./413. Continental Rationalism (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Descartes, Spinoza and Leibniz.
Letter grade only (A-F).

## 514./414. British Empiricism (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Locke, Berkeley, and Hume. Letter grade only (A-F).

## 516./416. Pragmatism (3)

Prerequisite: Three units of philosophy or consent of instructor.
Development of pragmatism as exemplified in the philosophies of Peirce, James, Dewey and Mead.
Letter grade only (A-F).

## 517./417. Phenomenology (3)

Prerequisites: Six units of philosophy or consent of instructor.
Study of one of the major movements of contemporary philosophy. Themes treated may include knowledge, meaning, emotionality, embodiment, language, sociality, freedom and religion. Philosophers treated may include Husserl, Scheler, Heidegger, Merleau-Ponty and Ricoeur.
Letter grade only (A-F).

## 518./418. Existentialism (3)

Prerequisites: Three units of philosophy or consent of instructor. Intensive study of such issues as self-as-existence, freedom and responsibility in their ethical, religious, political and aesthetic dimensions. Philosophers treated may include Kierkegaard, Nietzsche, Marcel, Jaspers, Sartre and Camus. Letter grade only (A-F).
519./419. Analytic Philosophy (3)

Prerequisites: Six units of philosophy to include PHIL 270, or consent of instructor.
Analysis of major movements in development of Anglo-
American philosophy in twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Study of contributions of such philosophers as Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, Strawson, and Quine.
Letter grade only (A-F).
521./421. Plato (3)

Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Plato's thought, based primarily on readings from his works.
Letter grade only (A-F).

## 522./422. Aristotle (3)

Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Aristotle's thought, based primarily on readings from his works.
Letter grade only (A-F).

## 523./423. Kant (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Intensive study of Kant's Critique of Pure Reason.
Letter grade only (A-F).
524./424. Hegel (3)

Prerequisites: Six units of philosophy to include 204, or consent of instructor.
Study of Hegel's Philosophy of Mind and Logic, and selected writings by Hegel and other topics.
Letter grade only (A-F).
525./425. Wittgenstein (3)

Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of the later philosophy of Wittgenstein, centering on Philosophical Investigations.

## 552. Advanced Studies in Law, Philosophy, and the

 Humanities (3)Prerequisites: Graduate standing.
Comparison of how the law is considered by various disciplines; primary focus is on philosophical methods and legal methods, with some consideration of other humanities disciplines, such as literature.

## 555./455. Philosophical Perspectives on Sex and Love

 (3)Prerequisites: Six units of philosophy or consent of instructor.
Philosophical perspectives on sex and love explores philosophical issues concerning sex, gender and love through readings and discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination are examined.

## 570./470. Symbolic Logic II (3)

Prerequisites: PHIL 270, consent of instructor.
A philosophical consideration of deductive systems.

## 583./483. Philosophical Psychology (3)

Prerequisite: Six units of philosophy or consent of instructor.
Nature of the mind. Psychological concepts such as intention, consciousness, action, motive, imagination, belief and purpose. Letter grade only (A-F).

## 584./484. Philosophy of Language (3)

Prerequisites: Six units of philosophy or consent of instructor. Philosophical thought about language and meaning. Letter grade only (A-F).

## 590./490. Special Topics Early Philosophy (3)

Prerequisites: Six units of philosophy or consent of instructor. Study of figures, periods or issues in ancient or medieval philosophy.
Specific issues, period or figures will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 591./491. Special Topics Modern Tradition (3)

Prerequisites: Six units of philosophy or consent of instructor. Study of a significant philosopher, or of some issue or theme of modern (1600-1900) philosophical era.
Specific titles announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 592./492. Special Topics: Twentieth Century Philosophy

 (3)Prerequisites: Six units of philosophy or consent of instructor.
Study of a significant philosopher or of a school or movement of twentieth century.
Specific title will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 593./493. Special Topics: Metaphysical Studies (3)

Prerequisites: Six units of philosophy or consent of instructor.
Seminar study of a selected metaphysical topic.
Specific title will be announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 596./496. Special Topics: Value and Evaluation (3)

Prerequisites: Six units of philosophy or consent of instructor.
Seminar of selected topic in value or evaluation. Sample topics: Theories of Value, Freedom and Determinism.
Specific topics announced in the Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 597. Teaching Philosophy (3)

Prerequisites: Six units of philosophy or consent of instructor. A practical and theoretical introduction to the aims, methods, responsibilities, and ethics of teaching in the college classroom, with an emphasis on the specific issues involved in teaching philosophy.
Letter grade only (A-F).

## 599. Graduate Tutorial (1-3)

Prerequisite: Consent of the instructor.
Supervised independent study. Seniors with a GPA of 3.0 or better may enroll with consent of Department. May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 620. Seminar in History of Philosophy (3)

Prerequisite: Consent of instructor.
Close study of selected subjects in the history of philosophy. The original language may be required.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 630. Seminar in Philosophy of Religion (3)

Prerequisite: PHIL 330 or consent of instructor.
Critical examination of selected issues, figures and movements.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 663. Seminar in Ethics (3)

Prerequisite: PHIL 363 or consent of the instructor.
Systematic examination of topics (such as human rights, pleasure) and theories (such as utilitarianism, contract theory) which are central to moral reasoning.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 680. Seminar in Epistemology (3)

Prerequisite: PHIL 382 or consent of instructor.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 681. Seminar in the Philosophy of Science (3)

Current issues in the philosophy of science. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).
690. Seminar in Selected Topics of Current Interest (3)

Presentation, discussion and critical evaluation of advanced work (which may include original research of faculty and graduate students) in selected topics of current interest to professional philosophers. Repeated to a maximum of 6 units. Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of the student's advisor.
Letter grade only (A-F).
698. Thesis (1-6)

Prerequisite: Consent of graduate advisor.
Preparation and completion of a thesis in philosophy and oral defense thereof.

Department Chair<br>Kay Cerny<br>Department Office<br>Engineering Technology Building, Room 130<br>\section*{Telephone}

(562) 985-4072

Faculty
Professors
Joyce Campbell, Charles L. Carter, Kay Cerny, Olfat Mohamed, Ray J. Morris, Albert C. Russo

## Associate Professor

Jody Cormack

## Department Coordinator

Gloria Dacanay

## Master of Physical Therapy (code PT__MT01)

The Master of Physical Therapy program is designed to provide entry-level professional preparation in physical therapy consistent with national trends. The proposed curriculum consists of 60 units of didactic course work followed by 12 units of postgraduate clinical internship for licensure to practice physical therapy in the State of California. The professional course work is preceded by appropriate prerequisite courses. This program will provide an opportunity for the student with a baccalaureate degree in physical therapy or in a related field of study, or who currently holds a license to practice physical therapy, to pursue a professional masters degree in physical therapy (not an advanced clinical speciality degree). Graduates will be prepared to assume responsible clinical administrative and consultative roles in a broad spectrum of physical therapy practice settings; and be responsive to changing expectations, the expanding body of knowledge, and the physical therapy practice environment.

## Requirements

The Master of Physical Therapy program requires completion of all prerequisite and professional course work described in the following:

## Program Prerequisites

Natural Sciences: CHEM 111A, 111B, PHYS 100A, 100B
Biological Sciences: BIOL 208, 211A, 211B, 341, 441, HHS
401, 402, 403, 460, 471
Biostatistics: BIOL 260 (or equivalent)
Behavioral Sciences: PSY 100, HHS 374
Note: Computer literacy is expected.

## MPT Core Requirements

Core: PT 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 522, 523, 524, 604, 605, 606, 607, 608, 611, 620, 622, 696, 697 or 698

## Postgraduate Internship Certification (code PT__CT01)

## Requirements

12 units of PT 525; 526 and/or 527 (must be completed to be eligible to take the state examination for licensure)

## Admission to the Master of Physical Therapy Program

The physical therapy masters program is open to all college graduates with a Bachelor of Science degree in Physical Therapy, or other disciplines, who have met prerequisite requirements and demonstrate academic promise and the ability to perform at a satisfactory level during their graduate studies.

To be considered for acceptance into the graduate program, the applicant must:

1. Complete all prerequisite courses with a minimum of
"C" (students admitted to graduate status must maintain
a minimum 3.0 overall grade point average in all upper division prerequisite coursework);
2. Hold, or be eligible to hold, an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation as determined by an appropriate campus authority;
3. Have attained a grade point average of at least 2.5 ( $\mathrm{A}=4.0$ ) in the last 60 semester ( 90 quarter) units attempted;
4. Submit results of the General Aptitude Section of the Graduate Record Examination (quantitative, verbal, and analytical), taken within the past 5 years;
5. Provide academic and personal references as required;
6. Provide documentation of personal experience in a variety of physical therapy settings; and
7. Be recommended by the physical therapy faculty.
8. All candidates whose preparatory education was principally in a language other than English must demonstrate competency in English. Refer to the CSULB Bulletin for requirements for completing the Test of English as a Foreign Language (TOEFL).
The master's degree program is a $60-$ unit, four semester plus one summer session full-time course of study. Graduates who have not met licensure eligibility requirements or who do not hold a valid physical therapy license (have not completed the BS degree in physical therapy) will be required to take a post-graduate internship (12 units). The course of study is most appropriate for graduates with degrees in related fields but does not exclude the person holding a baccalaureate degree in physical therapy. For graduates holding the BS degree in physical therapy, courses may be petitioned for the purpose of waving them providing a similar or like course has been completed which meets licensure standards. The emphases in the curriculum is to prepare graduates who desire to practice in a variety of clinical settings, e.g., private practice, acute care, rehabilitation, home health and extended care.

## Advancement to Candidacy Requirements

1. Classified graduate student status.
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
3. A minimum 3.0 grade-point average in all program graduate work as well as a minimum overall 3.0 in all graduate work attempted.
4. Be recommended by a faculty sponsor.
5. Enrollment in regular session.
6. Satisfactory completion of at least one semester of the program.

## Requirements for Admittance to Clinical Practice

1. Complete all requirements for the master's at the time of application to clinical practice.
2. Successfully complete either (a) a research thesis or project (PT 698) or (b) directed studies (PT 697) under the guidance of a faculty advisor.
3. If choice $b$ (above) is selected (PT 697) the student must also successfully complete a program comprehensive examination.

## Courses (PT)

## 501. Musculoskeletal and Biomechanical Principles (3)

 Prerequisites: HHS 401, 402, 403.Advanced study of joint mechanics and pathomechanics with application to therapeutic procedures, posture and movement of the limbs, temperomandibular joint, neck and trunk.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours.)

## 502. Normal and Pathological Gait (2)

Prerequisites: PT 501.
Kinetics and kinematics of normal and pathological gait with application to persons with gait disability. Emphasis on gait analysis and therapeutic procedures.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

## 503. Management of Individuals with Musculoskeletal

 Disorders I (3)Prerequisite: PT 501.
Physical therapy evaluative process for patient/clients with musculoskeletal disorders including examination, evaluation, diagnosis, prognosis, including anticipated goals, expected outcomes, criteria for discharge and reexamination.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours.)

## 504. Management of Individuals with Musculoskeletal Disorders II (4)

Prerequities: PT 501, 503.
The interventions for individuals with disorders of the musculoskeletal system including exercise prescription, strengthening regimens, effects of disuse, life sequence, wellness and prevention, theories of pain and pain management and selected preferred practice patterns provided by physical therapists.
Letter grade only (A-F). (Lecture/discussion 3 hours, laboratory 3 hours.)

## 505. Management of Human Growth and Development (2)

 Prerequisites: HHS 401, 460.Investigation and analysis of human development from birth to senescence with emphasis on concepts of motor, skeletal and neurological development processes necessary to prepare for evaluation and treatment intervention in musculoskeletal and neurological disabilities.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours.)
506. Exercise Physiology for Physical Therapy (2)

Prerequisites: BIOL 341, 441; HHS 401, 460, 471.
Study of systems critical for patient management that are challenged and altered by exercise in health and pathology. Includes exercise measurement, test design, equipment, and pharmacology of exercise.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours.)

## 507. Management of Individuals with Neuromuscular Disorders (4)

Prerequisites: HHS 460, PT 502.
Theory and physical therapy management of patient/clients with neuromuscular disorders: examination, evaluation, diagnosis, prognosis, and intervention (with anticipated goals) for a variety of neurological diagnostic groups. Includes prevention/risk factor reduction.
Letter grade only (A-F). (Lecture/discussion 3 hours, laboratory 3 hours.)

## 508. Management of the Pediatric Population (2)

Prerequisites: PT 505, 507, admission to the physical therapy program.
Physical therapy management of the pediatric patient/client with neuromusculoskeletal disorders. Includes examination, evaluation, diagnosis, prognosis and intervention (with anticipated goals) including reexamination, outcomes and criteria for discharge. Includes pathophysiology, clinical decision making, and prevention/ risk factor reduction.
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)

## 509. Management of the Cardiopulmonary System (3)

Prerequisites: BIOL 341, 441; PT 505, 506.
Physical therapy management of patient/clients with cardiopulmonary disorders including: examination, evaluation, diagnosis, prognosis and intervention (with anticipated goals) including reexamination, outcomes and criteria for discharge. Includes prevention/risk factor reduction.
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours.)

## 510. Patient Management and Functional Training (2)

Prerequisites: HHS 401, 402 and admittance to MPT program.
Patient/client management with emphasis on assistive and adaptive devices and physical agents, self care and home management (including activities of daily living and instrumental activities of daily living) and wound management. May include lectures from medical and physical therapy practitioners.
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)

## 511. Management of the Geriatric Population (3)

Prerequisites: PT 503, 504, 505, 507.
Physical therapy management of the geriatric patient/client including examination, evaluation, diagnosis, prognosis and intervention (with anticipated goals), including reexamination, outcomes and criteria for discharge. Includes prevention/risk factor reduction.
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours.)

## 512. Clinical Electrophysiology I (3)

Prerequisites: BIOL 341; HHS 402, 460.
The investigation of the physiological and neurological basis for the selection of electromyographic assessment tools and for the selection of electrotherapeutic intervention in the management of neuromusculoskeletal disorders. Includes specific interventions for the management of the patient/client with neuromuscular disorders. Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours.)

## 513. Clinical Electrophysiology II (2)

Prerequisites: PT 512.
Physiological considerations in the use of nerve stimulation studies and electromyography with the patient/client with neuromuscular disorders emphasizing the rationale for the selection of electrical stimulation techniques for physical therapy intervention as well as functional use of electrical stimulations systems.
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)
514. Prevention in Physical Therapy (1)

Prerequisites: PT 501, 506. Corequisites: PT 504, 507, 509.
Application of the principles of primary, secondary and tertiary prevention to physical therapy.
Letter grade only (A-F). (Laboratory 3 hours.)

## 522. Clinical Practice I (1)

Prerequisites: PT 501, 510; Corequisites: PT 502, 503, 506.
Initial directed clinical practice in a variety of health care delivery systems emphasizing the development of patient interaction skills, evidence-based practice, and critical thinking. This course uses structured learning units and collaborative learning within the clinical setting.
Credit/No Credit grading only. (Clinical practice 40 hours.)

## 523. Clinical Practice II (1)

Prerequisites: Completion of the first year of professional program.
Supervised clinical practice in a variety of health care delivery systems emphasizing musculoskeletal and neuromuscular conditions.
Credit/No Credit grading only. (Clinical Practice 6 weeks) May be repeated to a maximum of 2 units in different semesters.

## 524. Clinical Practice III (1)

Prerequisites: Completion of PT 523.
Supervised clinical practice in a variety of health care delivery systems emphasizing single and multiple systems impairments but including the management of patients with neurological, cardiopulmonary, prosthetic, or spinal/extremity conditions.
Credit/No credit grading only. (Clinical practice 40 hours.)

## 525. Clinical Internship I (3)

Prerequisites: Completion of all requirements for the MPT degree.
Six weeks of supervised full-time inpatient or outpatient clinical practice in a hospital system. Satisfactory completion of the internship is required for licensure to practice in the state of California.
Credit/No-Credit only. (Clinical internship 6 weeks.) May be repeated to a maximum of 6 units in the same semester. The combination of PT 525, 526, and 527 must equal a minimum of 12 units.

## 526. Clinical Internship II (3)

Prerequisites: Completion of all requirements for the MPT degree.
Six weeks of supervised full-time inpatient or outpatient rehabilitation with pediatric, geriatric, or adult neurology patients. Satisfactory completion of the internship is required for licensure to practice in the state of California.
Credit/No-Credit only. (Clinical internship 6 weeks.) May be repeated to a maximum of 6 units in the same semester. The combination of PT 525, 526, and 527 must equal a minimum of 12 units.

## 527. Clinical Internship III (3)

Prerequisites: Completion of all requirements for the MPT degree.
Six weeks of supervised full-time patient management in an outpatient orthopedic setting. Satisfactory completion of the internship is required for licensure to practice in the state of California.

Credit/No-Credit only. (Clinical internship 6 weeks.) May be repeated to a maximum of 6 units in the same semester. The combination of PT 525, 526, and 527 must equal a minimum of 12 units.

## 597. Independent Studies (1-3)

Prerequisites: Consent of instructor, and for human dissection, one general introductory anatomy course HHS 401 and 402.
Independent studies in any area of physical therapy. Human dissection is available as a special study.
May be repeated to a maximum of 6 units. Letter grade only (A-F). (Independent studies.)

## 604. Health Care Issues I (2)

Prerequisite: Admittance to MPT program.
Investigation of the health care delivery system including the regulatory, political, ethical, legal and promotional aspects of health care.
Letter grade only (A-F). (Lecture/discussion 2 hours.)

## 605. Health Care Issues II (2)

Prerequisite: Admittance to MPT program.
Investigation and discussion of the process of planned direction, organization, management, and economics of physical therapy and physical therapy delivery. Includes theories of disease prevention and health promotion.
Letter grade only (A-F.) (Lecture/discussion 2 hours.)

## 606. Professional Practice Issues (3)

Prerequisites: Admittance into the physical therapy program.
Issues such as interpersonal interactions, giving and receiving feedback, and values and culture as determinants of behavior. Evidence-based practice and the Guide to Physical Therapy Practice for clinical problem solving. Learning and teaching principles with focus on health behavior change.
Letter grade only (A-F). (Lecture/Discussion 3 hours.)
607. Seminar in Cardiopulmonary Clinical Decision Making (1)
Prerequisites: PT 509.
Continuing management of patient/client with disorders of cardiopulmonary system. Integrates disorders of cardiopulmonary system with other disorders that may impact cardiopulmonary health includes examination of psychosocial aspects of disability, community resources to meet needs of patient and family, social/ cultural aspects, and patient compliance and advocacy.
Letter grade only (A-F). (Seminar 1 hour.)
608. Neurologic Clinical Decision Making (1)

Prerequisite: PT 507.
Continuing management of the client with disorders of the neuromuscular system. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education.
Credit/No Credit grading only. (Clinic off-campus 1 hour.)
610. Advanced Study in Biomechanics and Kinesiology (2)

Prerequisites: PT 501, 502; MPT major or physical therapist. Advanced study in the biomechanical evaluation of pathological posture and movement with emphasis on gait.
Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

## 611. Advances in Orthopaedic Physical Therapy (2)

Prerequisites: PT 503, 504; MPT major or physical therapist.
Exploration of advanced clinical orthopedic management strategies.
Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

## 612. Advanced Study in Clinical Electroneuromyography

## (2)

Prerequisites: PT 512, 513; MPT major or physical therapist.
Advanced electroneuromyography assessment and electrical stimulation technology with an emphasis on objective documentation and improvement of neurological status, muscle performance, walking ability and functional capacity.
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)

## 613. Advances in the Management of the Geriatric Population (2)

Prerequisites: PT 505, 509, 511; MPT major or physical therapist.
Exploration of the clinical management strategies and intervention in aging.
Letter grade only (A-F). (Discussion 1 hour, laboratory 3 hours.)

## 614. Advances in the Management of the Pediatric

 Population (2)Prerequisites: PT 505, concurrent enrollment in PT 507; MPT major or physical therapist.
Exploration of advances in the management of the pediatric physical therapy patient with emphasis on various pathologies.
Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

## 615. Advances in the Management of the Neurological Patient (2)

Prerequisites: PT 506, 507, 508; MPT major or physical therapist.
Exploration of special considerations in the patient with neurological impairment.
Letter grade only (A-F).(Lecture/discussion 1 hour, lab 3 hours.)

## 616. Advances in the Management of the Cardiopulmonary Patient (2)

Prerequisites: PT 509; MPT major or physical therapist.
Exploration in the special considerations in the management of the patient with cardiopulmonary and circulatory disability.
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)

## 617. Management and Development of Independent Practice (2)

Prerequisites: Admission to the professional program, PT 604, PT 605; MPT major or physical therapist.
Exploration of the management and business strategies in independent practice.
Letter grade only (A-F). (Lecture/discussion 2 hours.)

## 618. Advanced Clinical Anatomy (2)

Prerequisites: PT 501, 502, 503, 504; MPT major or physical therapist.
Exploration of the advanced application of clinical anatomy. Dissection of specific areas of clinical relevance is an option. Letter grade only (A-F). (Lecture 1 hour, lab 3 hours.)
619. Contemporary Issues in Physical Therapy (2)

Prerequisites: PT 604; MPT major or physical therapist.
Exploration of contemporary and emerging trends in physical therapy practice.
Letter grade only (A-F). (Lecture/discussion 2 hours.)
620. Management of Patients with Orthotic and

## Prosthetic Needs (2)

Prerequisites: PT 502, 503.
The prescription, application, and fabrication of devices and equipment (orthotic, prosthetic, supportive splinting, and taping).
Letter grade only (A-F). (Lecture/discussion 1 hour, lab 3 hours.)

## 622. Clinical Pathophysiology (3)

Prerequisites: PT 504, 505, 507, 509, 510, 513, 606, 696. Corequisites: PT 508, 620.
Pathophysiology of connective tissue in musculoskeletal, neuromuscular, cardiopulmonary and integumentary disorders as a basis for physical therapy evaluation, diagnosis, goal setting and conservative as well as pre and post-operative intervention in patients with multiple systemic disorders.
Letter grade only (A-F). (Lecture/discussion 3 hours.)

## 696. Research Methods (2)

Prerequisite: Admittance to MPT program.
Scientific inquiry with emphasis on information searching. Epidemiology, research design (qualitative and quantitative), measurement theory, and applied statistics. Also includes critical inquiry and clinical decision-making guidelines, research ethics, and the development of a proposal on the validation of physical therapy practice.
Letter grade only (A-F). (Lecture/discussion 2 hours.)

## 697. Directed Research Studies (1-4)

Prerequisites: PT 606, 696, advancement to candidacy and consent of instructor.
Research in an area of specialization in physical therapy under the direction of a faculty sponsor.
Letter grade only (A-F). Must be completed for a total of 4 units.

## 698. Research Thesis/Project (1-4)

Prerequisites: PT 606, 696, advancement to candidacy and consent of instructor.
Planning, preparation, and completion of thesis or project in physical therapy.
Letter grade only (A-F). Must be completed for a total of 4 units.

## PHYSICS AND ASTRONOMY

College of Natural Sciences and Mathematics

Department Chair<br>Patrick Kenealy<br>Department Office<br>Peterson Hall (PH) 3-207<br>Telephone/FAX<br>(562) 985-4924/(562) 985-7924<br>Website<br>www.csulb.edu/depts/physics/<br>Faculty<br>Professors<br>M. Zahur Anwar, Lowell J. Eliason (Emeritus), Mark Gross, Paul Hintzen, Chi-Yu Hu, Patrick F. Kenealy, Alfred F. Leung, Jing Liu, Subhash Rajpoot<br>\section*{Associate Professors}<br>Andreas Bill, Zvonimir Hlousek, Chuhee Kwon, Zoltan Papp, Galen T. Pickett<br>\section*{Assistant Professors}<br>Mladen Barbic, Jiyeong Gu<br>Undergraduate Advisor<br>Galen T. Pickett<br>Credential Advisor<br>Laura Henriques, James Kisiel<br>\section*{Graduate Advisor}<br>Alfred F. Leung<br>Administrative Support Coordinator<br>Irene Howard

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

The Department of Physics and Astronomy offers two bachelor's degrees and a master's degree; descriptions of these programs and the requirements for their completion are given below.

## Degree Programs

Each bachelor's degree offered by the Department is based on a strong, basic program. The Bachelor of Science (B.S.) degree is designed for students interested in immediate employment in industry as well as those who wish to continue onto a Master's or Ph.D. degree in physics or a related field. The Bachelor of Arts (B.A.) degree is appropriate for those preparing for teaching
careers in the physical sciences at the secondary level as well as those whose goal is a liberal education with an emphasis on physics. The curriculum for these baccalaureate degrees provides a broadly-based exposure to theoretical and experimental physics. It also permits students to discuss fundamental concepts and their applications to grasp the discoveries at science's expanding frontiers, and to develop an appreciation for the amazing beauty of the physical universe.

The Department also offers graduate study leading to the Master of Science (M.S.) degree. The M.S. degree is available in both a general option and an option in applied physics. A student may choose the general option either with a thesis (Plan I) or, if the department graduate committee gives permission, with a comprehensive examination (Plan II); the option in applied physics requires a thesis. Active areas of research are: materials sciences, condensed matter physics (superconductivity, magnetism, polymer physics), computational physics, quantum few-body scattering theory, theory of low-energy atomic collisions, field theory, gauge/ gravitational interactions, phenomenology of elementary particles, biophysics, and applied optics. A limited number of teaching associateships and graduate assistantships are available to students working on the master's degree. Work as a teaching associate (TA) is a valuable part of any degree program. Application should be made to the graduate advisor of the Department of Physics and Astronomy.

## Concurrent and/or Summer Enrollment at Another College

Students who wish to take course work at a community college or another college or university to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate Department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. Please see "Concurrent Enrollment" and "Transfer of Undergraduate Credit" in this Catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

## Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' Science Safari to Success (for first-time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Jensen Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Physics (code PHYSBS01) (120 units)

## Requirements

Lower Division: PHYS 151, 152, 254, 255; MATH 122,123, 224; CHEM 111A, B; BIOL 200 or 211A.

Upper Division: ENGL 317; MATH 370A or 364A, MATH 370B or 461; 33 units of upper division physics including PHYS $310,320,340 \mathrm{~A}, 340 \mathrm{~B}, 350,360,380,450$, and one laboratory course chosen from PHYS 330, 403, 445, 476 and 480. The remaining ( 6 to 8 ) units are to be chosen from any upper division physics courses.

## Grade Requirements

Physics majors must have a " $C$ " average in the major. Physics students must achieve a grade of " $C$ " or better in each required course in the major. The following schedule is typical for an upper division major who is a full-time student.

## Junior Year:

Fall: PHYS 310, 320, 360; MATH 370A or 364A (or MATH 370B or 461; it is recommended that MATH 370A or 364A be taken before PHYS 310, if possible).
Spring: PHYS 340A, 350, 380; MATH 370B or 461 (if not taken previously).
Senior Year:
Fall: PHYS 340B, 450.
Spring: Three upper division physics electives.

## Bachelor of Arts in Physics (code PHYSBA01) (120 units)

This degree is designed for the student who expects to teach at the secondary level, or who seeks a high quality liberal education focusing on science. A minimum of 120 units is required for this degree.

## Requirements

Lower-Division: PHYS 151, 152, 254, 255; MATH 122, 123, 224; CHEM 111A,B; BIOL 200 or 211A.

Upper-Division: minimum of 24 units selected in consultation with Physics Department Undergraduate Advisor, at least 18 units of which must be in physics; ENGL 317 or other suitable upper-division writing course from Department of English, determined in consultation with Physics Department Undergraduate Advisor (may be waived for students who achieved a standard score of 24 on the ACT English sub-test or who received an "A" or "B" grade in ENGL 100).

## Teaching Credential

## Requirements Related to a Teaching Credential with a Physics Concentration

The Physics Concentration meets the subject matter competence requirement for the Single Subject Preliminary Credential in Physics (code 183). Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective Physics teachers are also required to complete 44 units of
professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/singlesubject) for a description of the professional preparation requirements, courses, and application procedures.

The Physics Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

Lower-Division: PHYS 151, 152, 254, 255; MATH 122, 123, 224; ASTR 100; BIOL 211A,B; CHEM 111A,B; GEOL 102, 104, 160.

Upper-Division: MATH 364A or 370A; PHYS 310, 340A, either 320 or 422 , either 330 or both 475 and 476 , either 380 or 3 units of 496; SCED 403, 404; EDSS 300C, 450C; EDSE 435, 436, 457.

## Minor in Physics (code PHYSUM01)

## Requirements

The Minor in Physics is available to any non-Physics major. A minimum of 20 units which must include the following.

Lower Division: PHYS 151, 152, 254, 255.
Upper Division: A minimum of nine units in physics (PHYS 360 will not count toward these nine units).

## GRADUATE PROGRAMS

## Master of Science in Physics (code PHYSMS01)

## Prerequisites

1. A bachelor's degree with a major in physics; or
2. A bachelor's degree with at least 24 units of upper division physics. (Students deficient in undergraduate preparation must take courses to remove these deficiencies without credit toward the degree at the discretion of the Department Graduate Advisor.)

## Requirements

1. Advancement to Candidacy
A. Students must fulfill the University requirements for advancement to candidacy.
B. A student must have a "B" average or better in six units of physics applicable toward the master's degree, of which at least three units are at the graduate level.
2. Recognizing that effective organization and verbal communication of physics are a necessary part of a successful graduate program, the Department of Physics and Astronomy normally requires that a graduate student serve at least one semester as a teaching associate or a graduate assistant as part of the M.S. program. Exceptions may be granted by the Graduate Advisor.

## Additional Requirements

Plan I

1. A minimum of 30 units of upper division and graduate courses including PHYS 540A,B, 550A,B, 560A, and 695;
2. Completion of a written thesis, 6 units of PHYS 698, and an oral presentation of the thesis research. The members of the candidate's thesis committee must approve the thesis before the student may schedule the oral presentation.
Note: Students must be advanced to candidacy before enrolling in PHYS 698. As early as possible, a graduate student should choose a thesis chair who will help in selecting the student's thesis committee consisting of at least three members (including the thesis chair and at least one other member of the Department).
Plan II
3. Permission of the Department Graduate Committee;
4. A minimum of 30 units of upper division and graduate courses including PHYS 510, 540A,B, 550A,B, 560A, and 695;
5. Passing a comprehensive examination.

The remaining required units, not more than 6 of which may be in related fields, are to be from courses selected in consultation with the Graduate Advisor.

## Option in Applied Physics (code PHYSMS02)

The Option in Applied Physics provides a master's degree program that emphasizes concepts and techniques particularly appropriate for applied physics. It is intended for students having a background in physics, engineering, or a related field.

## Prerequisites

1. A bachelor's degree with a major in physics, or
2. A bachelor's degree with a major in engineering with upper division physics substantially equivalent to PHYS 310, 340A,B, and 450, as determined by the Department Graduate Advisor, or
3. A bachelor's degree with upper division physics and mathematics courses essentially equivalent to PHYS 310, 340B, 450; and MATH 370A,B; as determined by the Department Graduate Advisor.
Students deficient in undergraduate preparation must take courses to remove these deficiencies as determined by the Department Graduate Advisor.

## Requirements

1. Advancement to Candidacy
A. Students must fulfill the University requirements for advancement to candidacy.
B. A student must have a "B" average or better in six units of physics applicable toward the master's degree, of which at least three units are at the graduate level.
2. Recognizing that effective organization and verbal communication of physics are a necessary part of a successful graduate program, the Department of Physics and Astronomy normally requires that a graduate student serve at least one semester as a teaching associate or a graduate assistant as part of the M.S. program. Exceptions may be granted by the Graduate Advisor.

## Additional Requirements

Thirty units of upper division and graduate courses as described below.

1. PHYS 540A, 550A, 560A, 569, and 695.
2. Two of the following courses or combinations of courses: PHYS 502/503, 545, 575/576, and 580.
3. Completion of a written thesis, 6 units of PHYS 698, and an oral presentation of the thesis research. The members of the candidate's thesis committee must approve the thesis before the student may schedule the oral presentation.
Note: Students must be advanced to candidacy before enrolling in PHYS 698. As early as possible, a graduate student should choose a thesis chair who will help in selecting the student's thesis committee consisting of at least three members (including the thesis chair and at least one other member of the Department).
4. Courses selected in consultation with the Department Graduate Advisor and/or thesis chair to complete the remaining 2 to 3 units.

## Physics Courses (PHYS)

## LOWER DIVISION

## 100A,B. General Physics (4,4) F,S

Prerequisites: MATH 112 or 117 or 119A or 120 or 122. PHYS 100A is a prerequisite for PHYS 100B.
Year course in introductory physics. First semester considers properties of matter, mechanics, wave motion, and heat. Second semester considers electricity, light, and atomic and nuclear physics.
Letter grade only (A-F). (Lecture 3 hrs, laboratory 3 hrs.) (100A: CAN PHYS 2; 100B: CAN PHYS 4)

## 102. Introduction to Physics (3) F,S

Prerequisite: MATH 117 (which may be taken concurrently) or three-and-one-half years of high school mathematics including two years of algebra, one year of geometry and one-half year of trigonometry.
Assists students needing additional preparation before enrolling in PHYS 100A or 151. Basic problems and concepts in physics, particularly in mechanics.
Credit/No Credit grading only. Begins in the fourth week of the semester. (Lectures, problem sessions 4 hrs.)

## 151. Mechanics and Heat (4) F,S

Prerequisite: MATH 122.
Kinematics, Newton's Laws, rotational motion, fluid statics, laws of thermodynamics.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)
152. Electricity and Magnetism (4) F,S

Prerequisites: PHYS 151; MATH 123.
Mechanical waves, Coulomb's law, electrostatics, electric circuits, introductory electronics, magnetic fields, induction and Maxwell's equations.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

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## 254. Applied Modern Physics (3) F,S

Prerequisites: PHYS 152 or EE 210; MATH 224.
Geometrical and physical optics, models of atomic and condensed matter systems.
Letter grade only (A-F). Not open for credit to students with a "C" or better in PHYS 153 or PHYS 154. (Lecture 3 hrs.)
255. Laboratory on Modern Physics (1)

Prerequisites: PHYS 254, which may be taken concurrently. Experimental work in optics and modern physics.
Not open for credit to students with a "C" or better in PHYS 153 or PHYS 155. PHYS 255 is equivalent to PHYS 155. Letter grade only (A-F). (Laboratory 3 hrs.)

## UPPER DIVISION

310. Mechanics I (3) F

Prerequisites: PHYS 151. Prerequisite/Corequisite: MATH 364A or 370A.
Kinematics and dynamics of mass points and systems of particles. Conservation laws. Harmonic motion. Central force problem. Noninertial frames of reference. Lagrangian and Hamiltonian formulation of laws of mechanics.
Letter grade only (A-F). (Lecture 3 hrs.)
320. Classical and Statistical Thermodynamics (3) F Prerequisite: PHYS 152. Prerequisite/Corequisite, PHYS 254.
Laws of thermodynamics, thermodynamic potentials, kinetic theory methods, phase transitions, equilibrium ensembles and related formalism with applications to classical and quantum systems. (Lecture 3 hrs .)
330. Experimental Optics and Spectroscopy (3) F Prerequisites: PHYS 254, 255.
Interference, diffraction, polarization and elementary spectroscopy. (Lecture 2 hrs., laboratory 3 hrs.)

## 340A. Electricity and Magnetism I (3) S

Prerequisites: PHYS 152, 310. Prerequisite/Corequisite: MATH 370A or 364A.
Vector calculus, electrostatics, and magnetostatics. Formulation of Maxwell's equations in vector analytic form.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

## 340B. Electricity and Magnetism II (3) F

Prerequisite: PHYS 340A. Special relativity.
Applications of Maxwell's equations: Plane electromagnetic waves, guided waves, radiation, interaction of electromagnetic waves and matter.
(Lecture-discussion 3 hrs .)

## 350. Modern Physics (3) S

Prerequisites: PHYS 310; MATH 370A or 364A.
Physical phenomena and models leading to development of quantum mechanics. Schroedinger equation, one-dimensional quantum mechanical problems, uncertainty principle, one-electron atoms, elementary applications of quantum mechanics.
(Lecture-discussion 3 hrs .)

## 360. Computers in Physics (3) F

Prerequisite: PHYS 152. Prerequisite/Corequisite: MATH 370A or 364A.

Introduction to use of personal computers in physics calculations and analysis and Mathematica software and programming. Interpolation and fitting of experimental data. Examples of symbolic (analytic) calculations, numerical solutions, and graphical display of results for a variety of physics problems.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)
*380. Electronics (4) S
Prerequisite: PHYS 152.
Network analysis and complex impedance, transistor circuits, operational amplifiers, active filters and oscillators, digital electronics, analog-digital interfacing, microprocessors.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)
402./502. Fourier Methods in Physics (3) F, odd years

Prerequisites: PHYS 310; MATH 370B or 461. (Undergraduates enroll in PHYS 402; graduates enroll in PHYS 502.)
Fourier transforms in time and space, convolution, generalized functions, impulse response and transfer function. Application of Fourier techniques to problems in classical acoustics and optics: oscillators, directional radiators, holography, and imaging.
Letter grade only (A-F). (Lec 3 hrs)

## 403./503. Fourier Physics Laboratory (1) F, odd years

Prerequisite/Corequisite: PHYS 402. (Undergraduates enroll in PHYS 403; graduates enroll in PHYS 503.)

Experiments in acoustics and optics illustrating Fourier techniques in wave physics. Detailed study of discrete Fourier transform and its application to experimental measurements and calculations.
Letter grade only (A-F). (Laboratory 3 hrs.)

## 410./515. Relativity (3) F, odd years

Prerequisite: PHYS 340A. Prerequisite/Corequisite: MATH 370A or 364A. (Undergraduates enroll in PHYS 410; graduates enroll in PHYS 515.)
Lorentz transformation, relativistic kinematics and dynamics, 4vectors and tensors, transformation of electric and magnetic fields, covariant form of Maxwell's equations, introduction to general relativity.
Letter grade only (A-F). (Lecture-discussion 3 hrs .)

## 422./522. Thermal Physics (3) F, even years

Prerequisites: PHYS 310, 320, 350. (Undergraduates enroll in PHYS 422; graduates enroll in PHYS 522.)
Entropy and temperature, Boltzmann distribution and Helmholtz free energy, thermal radiation, chemical potential, Gibbs distribution, ideal gas, Fermi and Bose gases, heat and work, Gibbs free energy and chemical reactions, phase transformations and kinetic theory. Letter grade only (A-F). (Lec-discussion 3 hrs)

## 434./534. Astrophysics (3) F, even years

Prerequisites: PHYS 310, 320, and 340A or consent of the instructor. (Undergraduates enroll in PHYS 434; graduates enroll in PHYS 534.)

Topics in astrophysics. A particular semester schedule might include one or two topics from: Stellar interiors and evolution, radiative transfer and stellar atmospheres, relativistic cosmology, galaxy formation, accretion disk physics and quasars.
Letter grade only (A-F). (Lecture 3 hrs )

## 444./544. Plasma Physics (3) S, odd years

Prerequisites: PHYS 340A. (Undergraduates enroll in PHYS 444; graduates enroll in PHYS 544.)
Characteristic behavior of high temperature plasma. Particle trajectories, two-fluid and hydromagnetic models, waves, instabilities and transport processes. Applications to astrophysical, geophysical and laboratory plasmas.
(Lecture 3 hrs.)

## 445./545. Fundamentals and Techniques of Materials Physics (3) S, odd years

Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates enroll in PHYS 445; graduates enroll in PHYS 545.)

Fundamentals of materials physics and physical properties of matter, principles, and operation of scanning tunneling and scanning force microscopes, resistance, and temperature measurements.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 450. Quantum Physics I (3) F

Prerequisites: PHYS 310, 340A, 350.
Schroedinger equation, atomic physics, harmonic oscillator, scattering, perturbation theory, Heisenberg and Dirac representations, spin, symmetries (angular momentum, time reversal, and parity), applications.

## (Lec-discussion 3 hrs.)

## *451. Quantum Physics II (3) S, even years

Prerequisite: PHYS 450.
Measurement processes, atomic physics, identical particles, quantum statistics, numerical methods, many-body systems, density matrix, applications.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

## 470./569. Introduction to Solid State Physics (3) S, odd years

Prerequisite: PHYS 450. (Undergraduates enroll in PHYS 470; graduates enroll in PHYS 569.)
Study of properties of solids from quantum theoretical viewpoint. Includes lattice vibratons, elastic constants, and thermal, electric, and magnetic properties.
(Lecture 3 hrs.) Letter grade only (A-F).

## 475./575. Modern Optics (3) F, even years

Prerequisite: PHYS 340A. (Undergraduates enroll in PHYS 475; graduates enroll in PHYS 575.)
Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected application.
Letter grade only (A-F). (Lecture 3 hrs.)

## 476./576. Modern Optics Laboratory (1) F, even years

Prerequisites: PHYS 475/575 which may be taken concurrently. (Undergraduates enroll in PHYS 476; graduates enroll in PHYS 576.)
Experiments illustrating principles and techniques of electrooptics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics. Letter grade only (A-F). (Laboratory 3 hrs.)
480./580. Computer Interfacing in Experimental Physics (3)
S , even years S, even years
Prerequisite: PHYS 380 or consent of instructor. (Undergraduates enroll in PHYS 480; graduates enroll in PHYS 580.)
Modern data acquisition and analysis methods using computer-based equipment and high level software. Physics experiments performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. Computer use as tool in execution and interpretation of experiments.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

## 490./590. Special Topics in Physics (3)

Prerequisite: Consent of instructor. (Undergraduates enroll in PHYS 490; graduates enroll in PHYS 590.)
Physics topics selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, low temperature physics, acoustics, and theoretical physics.
May be repeated to a maximum of 6 units. (Lecture 3 hrs.)

## 496. Special Problems in Physics (1-3)

Prerequisites: Consent of instructor and senior standing.
Physics problems selected by instructor for considered and mature analysis. Written and 10-minute oral reports required.

## GRADUATE LEVEL

## 500. Research Methods (1)

Prerequisite: Consent of instructor.
Study of literature about research methods in physics.
May be repeated to a maximum of 2 units; only 1 unit may be applied to the Master of Science in Physics. Letter grade only (A-F).
502./402. Fourier Methods in Physics (3) F, odd years

Prerequisites: PHYS 310; MATH 370B or 461. (Undergraduates enroll in PHYS 402; graduates enroll in PHYS 502.)
Fourier transforms in time and space, convolution, generalized functions, impulse response and transfer function. Application of Fourier techniques to problems in classical acoustics and optics: oscillators, directional radiators, holography, and imaging.
Letter grade only (A-F). (Lecture 3 hrs)

## 503./403. Fourier Physics Laboratory (1) F, odd years

Prerequisite/Corequisite: PHYS 502. (Undergraduates enroll in PHYS 403; graduates enroll in PHYS 503.)
Experiments in acoustics and optics illustrating Fourier techniques in wave physics. Detailed study of discrete Fourier transform and its application to experimental measurements and calculations. Letter grade only (A-F). (Laboratory 3 hrs.)
510. Graduate Mechanics (4) F

Prerequisite: PHYS 310.
Variational principles, Lagrange's equations, Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, relativistic mechanics and small oscillation theory.
Letter grade only (A-F). (Lecture 4 hrs.)
515./410. Relativity (3) F, odd years

Prerequisite: PHYS 340A. Prerequisite/Corequisite: MATH 370A or MATH 364A. (Undergraduates enroll in PHYS 410; graduates enroll in PHYS 515.)
Lorentz transformation, relativistic kinematics and dynamics, 4vectors and tensors, transformation of electric and magnetic fields, covariant form of Maxwell's equations, introduction to general relativity.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

## 522./422. Thermal Physics (3) F, even years

Prerequisites: PHYS 310, 320, 350. (Undergraduates enroll in PHYS 422; graduates enroll in PHYS 522.)
Entropy and temperature, Boltzmann distribution and Helmholtz free energy, thermal radiation, chemical potential, Gibbs distribution, ideal gas, Fermi and Bose gases, heat and work, Gibbs free energy and chemical reactions, phase transformations and kinetic theory.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)
534./434. Astrophysics (3) F, even years

Prerequisites: PHYS 310, 320, and 340A or consent of the instructor. (Undergraduates enroll in PHYS 434; graduates enroll in PHYS 534.)
Topics in astrophysics. A particular semester schedule might include one or two topics from: Stellar interiors and evolution, radiative transfer and stellar atmospheres, relativistic cosmology, galaxy formation, accretion disk physics and quasars.
Letter grade only (A-F). (Lecture 3 hrs)

## 540A. Graduate Electricity and Magnetism and

 Electrodynamics I (3) SPrerequisite: PHYS 340B.
Boundary-value problems, applications of special functions to electro/magnetostatics, Green's function techniques, multipole expansion of electrostatic field, dielectric media, Maxwell's equations, electromagnetic waves.
Letter grade only (A-F). (Lecture 3 hrs.)

## 540B. Graduate Electricity and Magnetism and Electrodynamics II (3) F

Prerequisites: PHYS 540A.
Covariant formalism, simple radiating systems, radiation by moving charges, and topics in electrodynamics chosen from the following: wave guides, magnetohydrodynamics, thermodynamics and electrodynamics of continuous media, and radiation reaction.
Letter grade only (A-F). (Lecture 3 hrs.)

## 544./444. Plasma Physics (3) S, odd years

Prerequisites: PHYS 340A. (Undergraduates enroll in PHYS 444; graduates enroll in PHYS 544.)
Characteristic behavior of high temperature plasma. Particle trajectories, two-fluid and hydromagnetic models, waves, instabilities and transport processes. Applications to astrophysical, geophysical and laboratory plasmas.
Letter grade only (A-F). (Lecture 3 hrs.)

## 545./445. Fundamentals and Techniques of Materials Physics (3) S, odd years

Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates enroll in PHYS 445; graduates enroll in PHYS 545.)
Fundamentals of materials physics and physical properties of matter, principles, and operation of scanning tunneling and scanning force microscopes, resistance, and temperature measurements.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs .)

## 550A. Quantum Mechanics I (3) F

Prerequisite: PHYS 450.
Mathematical and postulational basis of quantum mechanics, onedimensional problems, two-level systems, angular momentum, central potentials, time independent and time dependent perturbation theory.
Letter grade only (A-F). (Lecture 3 hrs .)

## 550B. Quantum Mechanics II (3) S

Prerequisite: PHYS 550A.
Scattering, rotation group and irreducible tensor operations, identical particles, semi-classical radiation theory, atoms, path integral
formalism, and other selected topics.
Letter grade only (A-F). (Lecture 3 hrs.)

## 554. Nuclear Physics (3)

## Prerequisite: PHYS 550A.

Deuteron problem, nucleon-nucleon potential, shell model, nuclear models, nuclear reactions, elementary particles, weak interactions, strong interactions.
Letter grade only (A-F). (Lecture 3 hrs .)

## 555. Elementary Particle Physics (3) S, even years

Prerequisites: PHYS 310, 340B, 450.
Feynman diagram language of scattering and decay, space-time symmetries, relativistic kinematics, hadron quantum numbers and quark models, QED, QCD and gluons, weak interactions.
Letter grade only (A-F). (Lecture 3 hrs.)

## 560A,B. Methods of Mathematical Physics (4,3)

Prerequisites: MATH 370A,B or equivalent.
Linear vector spaces, eigen-value problem, functions of complex variable, special functions, properties and methods of solving partial differential equations of physics, integral equations, tensor analysis, and group theory.
Letter grade only (A-F). (Lecture 4,3 hrs.)

## 569./470. Introduction to Solid State Physics (3) S, odd years

Prerequisite: PHYS 450. (Undergraduates enroll in PHYS 470; graduates enroll in PHYS 569.)
Study of the properties of solids from a quantum theoretical viewpoint. Topics include lattice vibrations, elastic constants, and thermal, electric and magnetic properties.
Letter grade only (A-F). (Lecture 3 hrs .)

## 570. Solid State Physics (3) F

Prerequisite: PHYS 450.
Modern theory of solids from standpoint of quantum mechanics. Binding in solids, energy bands, electrical thermal and magnetic properties, imperfections, and semiconductors.
Letter grade only (A-F). (Lecture 3 hrs.)

## 575./475. Modern Optics (3) F, even years

Prerequisite: PHYS 340A. (Undergraduates enroll in PHYS 475; graduates enroll in PHYS 575.)
Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected applications.
Letter grade only (A-F). (Lecture 3 hrs.)
576./476. Modern Optics Laboratory (1) F, even years

Prerequisite: PHYS 475/575 which may be taken concurrently. (Undergraduates enroll in PHYS 476; graduates enroll in PHYS 576.)

Selected experiments illustrating principles and techniques of current interest in electro-optics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics.
Letter grade only (A-F). (Laboratory 3 hrs.)
580./480. Computer Interfacing in Experimental Physics (3) S, even years

Prerequisite: PHYS 380 or consent of instructor. (Undergraduates enroll in PHYS 480; graduates enroll in PHYS 580.)
Modern data acquisition and analysis methods using computerbased equipment and high level software. Physics experiments performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. Computer use as tool in execution and interpretation of experiments.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)
590./490. Special Topics in Physics (3)

Prerequisite: Consent of instructor. (Undergraduates enroll in PHYS 490; graduates enroll in PHYS 590.)
Physics topics selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, low temperature physics, acoustics, and theoretical physics.
May be repeated to a maximum of 6 units. (Lecture 3 hrs .)
599. Quantum Field Theory (3)

Prerequisites: PHYS 550B or consent of instructor.
Topics chosen from: Many-particle systems and field theory; interactions, bound states, and S-matrix; gauge theories and Q.E.D.; path-integral picture. Applications from condensed matter physics, electro-weak interactions, Q.C.D., lattice gauge theory, conformal field theory, string theory.
(Lecture 3 hrs .)

## 691. Directed Study (1)

Intensive study of advanced topics in physics.
May be repeated to a maximum of 2 units. Letter grade only (A-F).

## 694. Seminar in Special Topics (1)

Prerequisite: Graduate standing.
Study of research papers and research methods in selected topics. If demand for more than one subject exists, multiple sections may be given in any one semester.
May be repeated to a maximum of 2 units; only 1 unit may be applied to the master's degree. Letter grade only (A-F). (Seminar 1 hr.)

## 695. Colloquium (1)

Prerequisites: Graduate standing.
Weekly meetings for presentation and discussion of current research in physics even though only 1 unit is for M.S. degree.
Graduate students are expected to attend each semester they are enrolled in University.
Credit/No Credit grading only. (Seminar 1 hr .)
697. Directed Research (1-3)

Theoretical and experimental problems in physics requiring intensive analysis.
Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisite: Advancement to candidacy for the M.S. in Physics.
Planning, preparation, and completion of acceptable thesis in partial fulfillment of requirements for master's degree. A half-hour seminar presenting and defending results of the thesis required. Credit obtained upon formal acceptance of thesis.

## Astronomy Courses (ASTR)

## LOWER DIVISION

## 100. Astronomy (3) F,S

Prerequisite/Corequisite: One course from Category B. 2 of the GE requirements.
Introductory course in astronomy. The earth moon system and the planets, the stars and their constitution. Survey of the methods of astronomical observation.
(Lecture 3 hrs .)
100L. Introductory Astronomy Laboratory (1) F,S
Prerequisites/Corequisites: One course from Category B. 2 of the GE requirements; ASTR 100.
Astronomical coordinates, star maps, magnitude, spectral classification, ages of stars, distance to star clusters.
Not open for credit to students with credit in ASTR 101. (Laboratory 3 hrs.)

## UPPER DIVISION

## 370I. Planetary Environments (3) F,S

Planetary Environments (3) F, S. Prerequisites: Completion of the G.E. Foundation and the G.E. B.1.b category; upper division status.
Planets and moons in our own solar system analyzed and compared as to surface geology, interiors, atmospheres, rings, etc. Methodologies used in observations and scientific reasoning leading to theories about nature and origins of features under study are emphasized. Origin and evolution of terrestrial life, including role of extinction events, and probable requirements for existence and detection of life elsewhere in universe.
(Lecture 3 hrs .)

## Physical Science Courses (PHSC)

## LOWER DIVISION

## 112. Introduction to the Physical Sciences (3) F,S

Prerequisite/Corequisite: One course from Category B. 2 of the GE Foundation.
Selected processes which illustrate some basic principles used by scientists to interpret modern ideas of matter and energy in physical universe.
Not open for credit to majors in any of the physical sciences.
(Lecture 2 hrs., laboratory 3 hrs.)

## UPPER DIVISION

## 331. Light, Lasers and the Visual Image (3)

Recommended for art and other non-science majors
Nonmathematical course describing light, its behavior and applications. Emphasis on image formation, optical instruments, science of color, lasers, holography, and analysis of light for elements, planets, and stars. Colorful demonstrations using lasers and holograms including kinetic art.
(Lecture-demonstration 3 hrs .

## POLITICAL SCIENCE

College of Liberal Arts

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Faculty
Professors
```

Mary Caputi, Christopher Dennis, Larry George, William M. Leiter, Charles Noble, Gerry Riposa, Ronald J. Schmidt, Barry H. Steiner, A. Jay Stevens (Emeritus)

Associate Professors
Larry F. Martinez, Teresa Wright

## Assistant Professors

Cora Goldstein, Liesl Haas, Richard Haesly, Amy Cabrera Rasmussen

## Administrative Coordinator

Nancy St. Martin
Students desiring information should contact the department office for referral to one of the faculty advisors:
Credential Coordinator
Arlene Lazarowitz (History)
Undergraduate Advisor
Mary Caputi
Graduate Coordinator
Ronald J. Schmidt
Pre-Law Advisor
Call Department Office

The political science major is designed to provide the student with a systematic knowledge of the nature and scope of political science. A student may elect to major in political science as a preparation for such fields as: (1) college or university teaching, (2) law, (3) government career service, (4) foreign career service, and (5) politics. In addition, a political science major is preparation for general education, good citizenship and participation in political life. Students interested in the fields mentioned above should consult with an advisor to secure aid in planning their programs.

## Pre-Law Program and Preparation

Political Science continues to be one of the more popular and successful roads to law school and careers in the legal field. Combining a broad exposure to liberal arts with an in-depth immersion in government studies and public law, plus opportunities to intern in legal settings, Political Science provides a rich preparation for those interested in pursuing careers in law. Students interested in our program should consult with the Pre-law advisor in Political Science both to plan a carefully thought out undergraduate course of study and to successfully prepare for admission to law schools.

## General Education Requirements in Government

The Education Code requires each college graduate to meet (1) a federal government requirement and (2) a California state and local government requirement. Both of these requirements can be met by POSC 100 (for lower division students) or POSC 391 (for upper division students). If the student has completed the federal government requirement, but not the California state and local government requirement, the student should take POSC 326. Students who have taken American federal, state or local government at another institution should check with the political science advisor before enrolling.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Political Science (code POSCBA01) (120 units)

## Requirements

Required Courses: (6 units) POSC 100, 300
Breadth Requirement: (24 units)
Three upper division units from five of the following six areas: International Relations, Comparative Politics, Political Theory, Public Law, American Government, Politics, Public Policy and Administration
Nine units of electives in Political Science courses, six of which may be in the lower division. Any upper division political science course may be used to fulfill this requirement. A maximum of 6 units of internship may be used to fulfill degree requirements.
Concentration Requirement: (9 units) Nine units from a sixth area, three units of which must be the senior seminar in that area (e.g., POSC 409, 419, 429, 449, 469, or 489)
Total Units: 39

## Honors in Political Science

Students with a major in Political Science may be admitted to the Political Science Department's honors program (option of the University Honor's Program) provided they have:

1. Junior standing, completed POSC 300 or 300A and at least two additional upper-division courses in Political Science;
2. A minimum of three semesters remaining before graduation;
3. A minimum cumulative GPA of 3.3 , and 3.5 in Political Science courses;
4. Submitted to the Department Honors Committee two letters of recommendation from faculty members and an example of a research or analytical paper written for a previously taken course in Political Science;
5. Received admission approval from the Department Honors Committee.
In order to graduate with Honors in Political Science a student must:
6. Complete all regular requirements for the major in Political Science;
7. Complete 3 units of POSC 490H: Honors Seminar;
8. Complete 3 units of POSC 491H: Honors Research;
9. Complete 3 units of POSC 492H: Honors Thesis;
10. Have at the time of graduation a cumulative GPA of at least 3.3 and a GPA of at least 3.5 in Political Science courses.

## Minor in Political Science (code POSCUM01)

The Minor in Political Science is available to any nonPolitical Science major.

A minimum of 21 units which must include:
Required: POSC 100 or 391, 300
Upper Division: Five upper division courses (300/400 level) which may include one approved political science internship from 418, 447, 448, 496, or 498.

## Minor in Public Administration in Political Science (code POSCUM02)

The Minor in Public Administration in Political Science is available to any non-Political Science major.

A minimum of 21 units which must include: (a) POSC 430; (b) 9 units selected from POSC 431, 432, 433, 436, 438, 442, 449; (c) 6 units selected from POSC 300B, 322, 323, 326, 327, 328, 329, 420, 447, 448; (d) Three elective units from any area in political science chosen in consultation with an advisor.

## GRADUATE PROGRAMS

## Master of Arts in Political Science (code POSCMA01)

The Department of Political Science offers graduate study leading to the master of arts degree. The student is urged to become acquainted with the general requirements of the University and the specific requirements of the department as stated in this Catalog. Important supplementary information about the steps leading to the master's degree in political science is contained in the Handbook for Graduate Students, which is available from the department upon request.

Before or soon after entering the program, the graduate student will normally consult with the department graduate advisor.

After beginning graduate study, the student is responsible for obtaining the consent of fulltime members of the department's graduate faculty to serve on her/his graduate
committee: one of these committee members, the chair, will be drawn from the student's major field of concentration and will serve as the student's academic advisor. The student should seek to have established her/his committee prior to the completion of the first year or the first 18 units of work as a graduate student in political science unless an exception is granted by the Department Graduate Committee.

## Prerequisites

1. A bachelor's degree with a major in political science or a bachelor's degree with 24 upper division units in political science comparable to those required for a major in political science at this university.
2. Completion of a minimum of one upper-division political theory course equivalent to POSC 301 or POSC 303 at CSULB, with a grade of " $B$ " or better.
3. Students whose undergraduate work is deficient in political science will be required to make up certain courses. Deficiencies will be determined by the Department's Graduate Committee after taking into account each student's background and goals. These courses will not count toward credit in the M.A.
4. A 3.0 ("B") GPA in political science courses taken as an undergraduate. (A student whose GPA is less than 3.0 may appeal to the Department's Graduate Committee for a possible waiver of this requirement.)
5. Three letters of recommendation (preferably from academic sources).

## Advancement to Candidacy

1. Satisfy the general requirements of the University for advancement to candidacy;
2. In order to be recommended for advancement to candidacy, students must obtain the written approval of their master's degree program of course work by their committee chair and graduate advisor.

## Requirements

1. A student's program is formulated in consultation with an advisor selected from the department's faculty. A minimum of 30 units of acceptable upper division and graduate courses is required. All students are required to take both POSC 500 and POSC 550. 21 units must be concentrated in three of the fields into which the department's curriculum is divided.
2. The graduate student must complete one of the following requirements: (a) A comprehensive examination in each of two fields of Political Science (b) A thesis. Students following the comprehensive examination option will earn 3 units of credit in POSC 697 and those writing a thesis will be granted three units of credit in POSC 698.

## Interdisciplinary Minor in Public Policy (code POSCUM03)

The purpose of this program is to enable persons majoring in fields related to public policy to gain a broader understanding of the substance of public policies, the underlying social, economic and political factors related to policy alternatives, the dynamics of the public policy decision-making process, the values implicit in these decisions, and methods by which these aspects of public policy may be analyzed.

The minor consists of 21 units including a core curriculum of 12 units and 9 units of electives. A maximum of 6 units may be taken in the student's major department, but no units may be counted in both the major and the minor.

## Requirements

1. Core Curriculum: (12 units required): Twelve units chosen from among the following courses: ECON 450, GEOG 466, POSC 328, PSY 375I, U/ST 301I.
Note: It is strongly recommended that students take the core curriculum courses in sequence, the first two courses during the Junior year; the second two during the Senior year.
2. Electives: (9 units required): At least 6 units of the 9 elective units must be taken in one of the policy area concentrations outlined below. The remaining 3 units may be taken from among any of the elective courses approved for the minor. See program director or a member of the Faculty Advisory Committee for a student handbook that lists all courses approved as electives.
Policy Area Concentrations: Community Relations and Social Services, Health Care, Housing and Recreation, Education, Economic Regulation, Justice and Law, Land Use and Ecology, Computational Skills for Public Policy, Foreign Policy and International Relations, Values and Public Policy, Government Processes and Policy.

Courses (POSC)

## LOWER DIVISION

## 100. Introduction to American Government (3)

Prerequisite/Corequisite: Any GE Foundation course. Introductory survey of American Political Institutions, politics, and policy, including government and politics in California. Constitutional foundations and current controversies. Satisfies the general education requirement and the California teaching credential requirement.

## (CAN GOVT 2)

## 105. Introduction to Critical Thinking (3)

Prerequisites/Corequisite: Completion/concurrent enrollment in ENGL 100 or equivalent.
Introduction to critical thinking through study of philosophical writing, political rhetoric, and political propaganda. Emphasis on distinguishing facts from values, inductive from deductive reasoning, emotional responses from reasoned judgments; relationship between language and logic; the role of inference; intellectual honesty.

## 201. Introduction to Political Science (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
Introduction to the principles of political science. Major terms, concepts, functions, and institutions relating to the processes of politics.

## 210. Issues of American Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
Intensive study of issues associated with the concepts of democracy, limited government, federalism, separation of powers, judicial review, and preservation of individual rights.

## 215. Issues of Comparative Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
Intensive study of issues associated with selected foreign governments, modernization, revolution, political change and world ideological conflict.

## 220. Issues in Global Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
Divergences between nations as they affect political differences between states. The political significance of the encounter of individuals with those of different nationalities.

## 225. Issues in Political Theory (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
Study and discussion of issues including revolution, power, justice, alienation, the nature of democracy, and other important political concepts. Views of theorists such as Plato, Hobbes, Rousseau, Mill, and Marx will be examined.

## 230. Issues in Political Economy (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100.
The relationship between politics and economics in contemporary societies; theories of political economy; the development of economic and regulatory policies in advanced capitalist democracies.

## Political Theory

301. Classical Political Theory
*303. Modern Political Theory
*304. Recent Political Theory
*306. Contemporary Political Ideologies
*308. American Political Theory
*401. Women in Political Theory
*409. Senior Seminar in Political Theory

## Public Law

*311. Constitutional Law: Power
*312. Constitutional Law: Rights
*316. Administrative Justice and Law Making
*318. Modern Legal Systems
412. Law and Social Change
*414. Jurisprudence
417. Legal Practices: Moot Court
418. Legal/Judicial Apprenticeship
*419. Senior Seminar in Public Law

## American Government and Politics

321. The Media and American Politics
322. Political Parties
323. Racial and Ethnic Politics - U.S.
324. California Government in Comparative Perspective
*327. Urban Politics
*420. Voting, Campaigns and Elections
*422. Public Opinion
*423. The American Presidency
*424. The Legislative Process
*428. Political Behavior
*429. Senior Seminar in American Government and Politics

## Public Policy and Administration

328. Introduction to Public Policy
*329. The Policy Making Process
329. Fundamentals of Public Administration
*431. Public Policy Analysis
*432. Public Values and Public Policy
*433. Public Organization and Management
*436. Public Personnel Administration
*438. Comparative Public Administration
*442. Planning Cities and Urban Regions
330. Public Service Internship I
331. Public Service Internship II
*449. Senior Seminar in Public Policy and Administration

Comparative Politics
353. Government and Politics of Western Europe
*356. Politics of the Soviet Union and its Successors
357. Politics of East-Central Europe
*358. Contemporary Latin American Politics
*359. Latin American Comparative Political Systems
*362. Society and National Politics of China
*363. Society and National Politics of Japan
*366. Governments and Politics of Southeast Asia
*367. Governments and Politics of the Middle East
450. Comparative Political Movements
*455. Comparative Revolutionary Change
461I. The Politics of Development
*463. Nationalism and National Identities
*469. Senior Seminar in Comparative Politics
*481. U.S. - Latin American Relations

## International Relations

371. Introduction to International Politics
*376. International Law
*378. International Organization and Administration
372. American Foreign Policy
*485. International Political Economy
*486. National Security Policies
*489. Senior Seminar in International Politics

## General

300. Scope/Methods Political Science

300A. Political Inquiry
300B. Quantitative Methods in Political Science
388I. Cyperspace Citizenship
391. American Government

395I. Politics Through Culture
490H. Honors Seminar
491H. Honors Research
492H. Honors Thesis
*493. Special Topics
494I. Politics of the Future
496. Washington Center Internship
*497. Special Topics
*498. Practicum in Politics
*499. Readings and Conference in Political Science

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course.

## 300. Scope and Methods of Political Science (3)

Prerequisite: POSC 100.
Examines what political scientists do. Focus on quantitative and qualitative techniques employed by political scientists to understand political phenomena. Examples draw on all subfields from political science: American politics, comparative politics, international relations, political theory, public law and public policy.
Letter grade only (A-F).
300A. Political Inquiry (3)
An examination of the key debates over what constitutes the proper methodological approach to the study of political and social phenomena. Topics include the philosophy of science and theoretical problems in Liberal, Marxist, and Post-Structuralist thought.
(Lecture 3 hrs )
300B. Quantitative Methods in Political Science (3)
Problems of data collection and analysis. Impact of research methods on findings. No prior knowledge of statistics is assumed. Only basic mathematical skills are needed for success in this course.
(Lecture 3 hours)

## 301. Classical Political Theory (3)

Prerequisites: Completion of the GE Foundation; POSC 100.
Ancient Greek and Roman roots of political theory. Socrates and the Sophists; Plato; Aristotle; Cicero; Polybius; and the Stoics. Examines relationship between the individual citizen and the Polis, justice and equality, democracy and dictatorship; the political culture of Mediterranean world.

## *303. Modern Political Theory (3)

Emergence of modern political thought in Western Europe from the 17th through the 19th century. Examines views of state and society in John Locke, Thomas Hobbes, Jean Jacques Rousseau, John Stuart Mill, Edmund Burke, George Hegel, and Karl Marx.

## *304. Recent Political Theory (3)

Critical examination of major themes in political thought in industrial and post-industrial society, from the late 19th century until today.

## *306. Contemporary Political Ideologies (3)

Critical examination of the nature and role of ideologies in contemporary politics. Conservatism, liberalism, socialism, communism and fascism in theory and practice.
*308. American Political Theory (3)
Critical examination of theorists, concepts and forces which have shaped American political consciousness from Puritans to present.
*311. Constitutional Law: Power (3)
Prerequisite: POSC 100 or 391 or equivalent.
Judicial interpretation of the U.S. Constitution. Judicial review; the power of the Presidency and the Congress; state governmental authority; nature of the American federalism.
Not open for credit to students with credit in POSC 315.
*312. Constitutional Law: Rights (3)
Prerequisite: POSC 100 or 391 or equivalent.
Analysis of the rights and guarantees contained in the Bill of Rights and other constitutional and statutory provisions. Examination of leading cases.
Not open for credit to students with credit in POSC 314.
*316. Administrative Justice and Law Making (3)
Nature and impact of administrative agency decision making.
Examination of leading cases.
*318. Modern Legal Systems (3)
Nature of public and private law. Emphasis on cases and materials illustrating development of Anglo-American legal institutions and processes. Background for the professional study of law.
321. The Media and American Politics (3)

Prerequisites: Completion of GE Foundation requirements; POSC 100 or consent of instructor.
Role of print and electronic media in American politics and their relationship to politicians and the public. Media's impact on government, policy making, election campaigning. Prospects for democratic deliberation. Portrayal of political issues and political themes in popular culture.

## 322. Political Parties (3)

Prerequisites: Completion of GE Foundation requirements.
Organization, functions and practices of U.S. political parties. Special attention to the nature and impact of the two-party system. Comparison of American party systems to party systems in other countries.

## 323. Racial and Ethnic Politics - U.S. (3)

Prerequisites: Completion of the GE Foundation; POSC 100.
Examination of the political activities of racial and ethnic minority groups in the United States, including American Indians, African Americans, Latino Americans and Asian/Pacific Americans. Political debates over competing approaches, strategies and public policies promoting equality in the U.S.

## 326. California Government in Comparative Perspective (3)

Prerequisites: Completion of GE Foundation requirements.
The government and politics of American States including intergovernmental relations. Special focus on political institutions, current issues, and public policies in California. May not be taken to fulfill G.E. credit except under category D.1.b.

## *327. Urban Politics (3)

Social conflicts, political processes and governmental Institutions in American urban areas. Emphasis on urban political culture, power structures, interest groups, social movements, urban governance and policy-making. Evaluation of urban political problems and proposed solutions.

## 328. Introduction to Public Policy (3)

Prerequisites: Completion of the GE Foundation; POSC 100. Analysis of major contemporary United States domestic policies including agriculture, income maintenance, economic regulations, worker training, conservation, crime control and revenue-sharing.

## *329. The Policy Making Process (3)

Prerequisites: Completion of GE Foundation, POSC 100, and POSC 328.
Examination of the policy process. Social, economic, and political forces and contexts that influence and are in turn influenced by policy. In depth study of contemporary policy areas.
353. Government and Politics of Western Europe (3)

Prerequisites: Completion of the GE Foundation and POSC 100.
Examination of selected European democracies, with emphasis on governmental structure, functions and political processes and their relationship to current problems.
*356. Politics of the Soviet Union and its Successors (3)
Examination and analysis of the evolution and fall of the Soviet system, with particular emphasis on the crisis of one-party rule and the rise of new political institutions and forces.
*357. Politics of East-Central Europe (3)
Comparative examination and analysis of the political evolution of the countries of East-Central Europe. Particular emphasis on the post-World War II period, the rise and fall of one-party systems, the impact of Soviet domination, and post-Soviet politics.
*358. Contemporary Latin American Politics (3)
Study of government and politics with emphasis on similarities and differences among Latin American states. Focus on principal groups and major issues in the political process. Conflicting explanations of the obstacles to development and other problems will be examined.
*359. Latin American Comparative Political Systems (3)
Comparative study of the political process and public policies of selected Latin American states. Includes an examination of major political, social, and economic issues and problems associated with modernization.
*362. Society and National Politics of China (3)
Study of the People's Republic of China, including its origin, ideology, and organization. Contemporary social, economic, and political developments.
*363. Society and National Politics of Japan (3)
Examination of Japan's political development since 1868 with special emphasis on the social and cultural bases of Japan's political system, party politics, governmental process, political economy, and foreign relations.
*366. Governments and Politics of Southeast Asia (3)
Emergence and development of the contemporary political systems of Southeast Asia.
*367. Governments and Politics of the Middle East (3)
Emergence and development of the contemporary political systems of the Middle East; the Arab-Israeli dispute; the role and importance of the region in international politics.

## 371. Introduction to International Politics (3)

Prerequisites: Completion of the GE Foundation; POSC 100.
Relations among nation-states. Why countries sometimes cooperate and sometimes go to war. Roles of intergovernmental organizations like the UN, the WTO, and NATO, and nongovernmental actors like Amnesty International and AI-Qaeda; international trade and finance; war, peace, terrorism and diplomacy.

## *376. International Law (3)

Nature and historical development of international law; determination of rules of international law; International community under law; recognition of states and governments; jurisdiction; settlement of international disputes; war aggression and neutrality.

## *378. Politics and Practice of the UN (3)

Examination of historical development of international organization from the Concert of Europe to the United Nations. Analysis of contemporary international organization, its functions, problems and prospects in the context of the world situation.
May be repeated to a maximum of 6 units in different semesters, but may only count once toward IR major concentration field requirement.

## 3881. Cyberspace Citizenship (3)

Prerequisites: Completion of GE Foundation requirements, one Explorations course, and upper-division standing.
Role of internet in politics, society, and economy. Development of cyberspace, virtual communities, online commerce, Web free speech fora. Evolving governmental institutions for managing property rights, Internet expansion and resolving cyberspace conflicts. Multiple dimensions of participatory citizenship in cyberspace.

## 391. American Government (3)

Prerequisites: Completion of GE Foundation requirements.
Survey of American government and politics, including attention to California government. Constitutional foundations and current controversies. Satisfies the general education requirement and the California teaching credential requirement.
Not open for credit to students with credit in POSC 100.

## 395I. Politics Through Culture (3)

Prerequisites: Completion of the GE Foundation, completion of one Explorations course, and upper division standing.
Study of politics through cultural analysis. Alternative theoretical perspectives on contemporary cultural artifacts such as art, film, music, and the media.

## *401. Women in Political Theory (3)

Prerequisite: Students must have completed one course in either political science or women's studies.
Differential treatment of women and men in western political theories, including femininity, power, rationality and the role of the women in the family. Classic and contemporary texts.
Same course as W/ST 402.
*409. Senior Seminar in Political Theory (3)
Prerequisites: Six units in political theory courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in political theory.
Letter grade only (A-F).

## 412. Law and Social Change (3)

Prerequisites: Completion of the GE Foundation; POSC 100.
Legal strategies pursued by social movements to remedy discrimination in the U.S. Legislative, administrative, and judicial responses. Gender equity, sexual harassment, voting rights, racial discrimination, fair housing, labor standards, sexual orientation, environmental justice, and American Indian rights.
*414. Jurisprudence (3)
Fundamental legal philosophies, sources and classifications of law. Relationship of law to other disciplines and societal institutions.

## 417. Legal Practices: Moot Court (3)

Prerequisites: Completion of either: POSC 311 or 312, AND one of: POSC 318, 412, or 414; and upper division standing.
Study and acquisition of the skills of lawyering, including legal research, reasoning, writing, and trial advocacy. Substantive study of civil liberties.

## 418. Legal/Judicial Apprenticeship (3)

Prerequisite: Consent of instructor.
Courtroom, law office, public legal agency, and/or non-profit legal agency experience in conjunction with reading and research directed by a faculty member. May be repeated for a maximum of six units in different semesters.
No more than three units of this internship course may apply toward the major in political science. A maximum of six units may be earned in $418,447,448$, and 498 combined.

## *419. Senior Seminar in Public Law (3)

Prerequisites: Six units in public law courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in public law.
Letter grade only (A-F).

## *420. Voting, Campaigns and Elections (3)

Analysis of factors influencing citizen's voting choices; methods used by candidates seeking electoral support; changes and trends in American elections.

## *422. Public Opinion (3)

Formation and development of public opinion; methods of measuring public opinion in the political system.
*423. The American Presidency (3)
The roles and powers of the American presidency with emphasis on major public policies of recent presidents.

## *424. The Legislative Process (3)

Analysis of the origin, development, and behavior of U.S. legislative bodies. Leadership, organization and procedures, problems and principles of law-making. Legislative relations with the executive and other governmental agencies.

## *428. Political Behavior (3)

Introduction to the socio-psychological basis of individual political behavior. Emphasis upon political socialization, political culture and personality as explanations of political participation, the development of political values and political action.
*429. Senior Seminar in American Government and Politics (3)
Prerequisites: Six units in American government and politics courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in American government and politics.
Letter grade only (A-F).

## 430. Fundamentals of Public Administration (3)

Principles and practices of federal, state and local administration.
Not open for credit to students with credit in POSC 331.

## *431. Public Policy Analysis (3)

Examination of the meaning and use of concepts and methods employed in public policy decision analysis, including an overview of the decision process, sources and methods of handling policyrelevant data, and methods and techniques of program evaluation and policy analysis.

## *432. Public Values and Public Policy (3)

Critical examination of selected value choices involving how and by whom public policy is to be made, and choices involving what should be the content and goals of public policy.

## *433. Public Organization and Management (3)

Theories of organization and management with emphasis on their relation to administrative problems in civilian and military spheres of American government.
Not open for credit to students with credit in POSC 334.
*436. Public Personnel Administration (3)
Survey of public personnel administration, including the growth and development of the civil service, the personnel agency, recruitment procedures, position classifications, training programs, employee organization and retirement systems.
Not open for credit to students with credit in POSC 336.

## *438. Comparative Public Administration (3)

Theories, models, structure and function of public administration in selected countries.
Not open for credit to students with credit in POSC 348.
*442. Planning Cities and Urban Regions (3)
Policymaking and the role of the planner in cities and urban regions. Activities of federal, state and local governments. Social and environmental consequences of land use, zoning, transportation and design. Historic preservation. New communities.

## 447. Public Service Internship I (3)

Prerequisite: Completion of the GE Foundation; POSC 100; consent of instructor.
Internships in one of the various federal, state, or local governmental units in the immediate area.
A maximum of six units may be earned in POSC 418, 447, 448, and 498 combined.

## 448. Public Service Internship II (3)

Prerequisite: Completion of the GE Foundation; POSC 100; consent of instructor.

Internships in one of the various federal, state, or local governmental units in the immediate area
A maximum of six units may be earned in POSC 418, 447, 448, and 498 combined.
*449. Senior Seminar in Public Policy and Administration (3)

Prerequisites: Six units in public policy and administration courses or consent of instructor.

Intensive study of selected conceptual and theoretical problems in public policy and administration.
Letter grade only (A-F).

## 450. Comparative Political Movements (3)

Prerequisites: Completion of the GE Foundation, completion of one Explorations course, and upper division standing.
Comparative study of the causes, progression, and consequences of political movements

## *455. Comparative Revolutionary Change (3)

Roots of revolution. Emphasis on the historical setting, ideology, socio-economic factors, political leadership, organization and nationalism. Analysis of revolutionary conditions, courses and tactics past and present.

## 461I. The Politics of Development (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Problems of political development in the emergent nations of Asia, Africa and Latin America.
*463. Nationalism and National Identities (3)
Prerequisites: POSC 100 and completion of GE Foundation requirements.
Impact of nationalism on contemporary world politics. Role of national identities in the rise of political violence, national liberation movements, and the struggle for democracy. Case studies such as Israel, Palestine, United States, Iraq, Russia, Chechnya, Rwanda, India, and Yugoslavia.

## *469. Senior Seminar in Comparative Politics (3)

Prerequisites: Six units in comparative politics courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in comparative politics.
Letter grade only (A-F).
*481. U.S. - Latin American Relations (3)
Prerequisites: Completion of the GE Foundation, completion of one Explorations course, and upper division standing.
U.S. policies toward Latin America and the Caribbean. Recent debates about these policies as well as their historical and global contexts. Survey of major issues, including U.S.-Cuba policy, transnational crime/drug-trafficking, international finance, trade integration, and migration.

## 482. American Foreign Policy (3)

Prerequisites: Completion of GE Foundation; POSC 100.
Concepts, strategies, and the shaping of American relations with other states, with special emphasis on the post-World War II period. National security, economic, and political-diplomatic concerns as they present new challenges to the United States.
*485. International Political Economy (3)
Politics of global economic relations, including monetary and trade regimes, markets and multinational corporations. Emphasis on issues of confrontation and collaboration between countries regarding development strategies, services trade and technology transfer.
Prospective students are strongly recommended to take POSC 371, 230 , ECON 300 or the equivalent.
*486. National Security Policies (3)
Analysis of strategic posture with emphasis on military, political and economic inter-relationships as they influence national security and international politics.
*489. Senior Seminar in International Relations (3)
Prerequisites: Six units in international relations courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in international relations.
Letter grade only (A-F).

## 490H. Honors Seminar (3)

Prerequisites: Admission to the Honors Program in Political Science.

The nature and development of political science and its relationship to other disciplines in the Social Sciences. Recent developments in conceptual analysis and theory are emphasized.
(Seminar.) Course meets with POSC 500.

## 491H. Honors Research (3)

Prerequisite: Admission to the Honors Program in Political Science.
Research for twriting an Honors thesis under the direction of a faculty member.
(Independent Study.)
492H. Honors Thesis (3)
Prerequisites: POSC 491H.
Research and writing of an Honors thesis under the direction of a department faculty advisor.
(Independent Study.)

## *493. Special Topics (3)

Prerequisite: Consent of instructor.
Analysis of selected contemporary issues and problems.
Topics to be announced in the Schedule of Classes.

## 494I. Politics of the Future (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Study of present-day global problems: overpopulation, depletion of resources, environmental decay and their future political implications. Examination of alternative policies, future politics and institutional change. The technological revolutions and the totalitarian temptation.

## 496. Washington Center Internship (3)

Prerequisites: Upper division standing and consent of instructor. Students undertake a 30-35 hr. per week career-related internship in a federal, corporate or independent sector agency located in Washington D.C. A final written report is required. Concurrent enrollment in an independent studies course required.
Credit/No Credit grading only. May be repeated to a maximum of 9 units.

## *497. Special Topics (3)

Prerequisite: Consent of instructor.
Analysis of selected contemporary issues and problems.
May be repeated to a maximum of 6 units with different topics. Topics to be announced in the Schedule of Classes.

## *498. Practicum in Politics (1-3)

Prerequisite: Consent of instructor and department chair.
Political or governmental experience supplemented by reading and research under the direction of a faculty member.
May be repeated for a maximum of six units in the same semester. No more than three units may apply toward the major in political science. A maximum of six units may be earned in POSC 418, 447,448 , and 498 combined.
*499. Readings and Conference in Political Science (1-3)
Prerequisite: Consent of instructor.
Directed reading to permit independent pursuit by advanced students on topics of special interest.
Hours to be arranged. Graduate students who have had this course as an undergraduate may repeat it.

## GRADUATE LEVEL

## 500. Foundations and Scope of Political Science (3)

Prerequisite: Graduate status or consent of instructor.
Competing approaches to the analysis of political phenomena. Substantive models of social and political order and change as well as methodological arguments about the nature of explanation in political science.
Letter grade only (A-F).

## 550. Research Methods in Political Science (3)

Prerequisite: POSC 500.
Methods of empirical political science research; the formulation of hypotheses, problems and standards of measurement and observation; methods of data collection; research design and logic of data analysis. No prior knowledge of statistics is assumed. Letter grade only (A-F).

## 590. Advanced Study (3)

Prerequisite: Consent of Graduate
Coordinator and Instructor. Study under the supervision of a faculty member. Student must fulfill requirements of a selected upper division course plus additional work appropriate to graduate study as determined by the Instructor of the course.
May be repeated to a maximum of 6 units with different topics.

## 599. Graduate Studies (3)

Prerequisites: Consent of Graduate Coordinator and instructor. Individual graduate level study and research of special topics under the supervision of a faculty member.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 600. Seminar in International Politics (3)

Prerequisite: POSC 371 or equivalent.
Examination of the role of power, multiple dimensions of national interest, collective security, world peace, nationalism, and imperialism.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 610. Seminar in Comparative Government (3)

Prerequisite: Three upper division units in comparative government.
Comparative study of government and politics in selected foreign countries. Intensive study of the political institutions and policies of selected foreign governments. Emphasis on political parties and contemporary governmental policy.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 620. Seminar in Political Theory (3)

Prerequisite: POSC 301 or 303 or equivalent.
Analytical and critical examination of the major concepts of political theory.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
640. Seminar in American Government and Public Law (3)

Prerequisite: Three upper division units in American Politics or Public Law.
Intensive study of topics and problems in American government, politics, law, and the judicial process.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
645. Seminar in Public Policy (3)

Prerequisites: Graduate standing or consent of instructor.
Analysis of the policy making process and the political environment that shapes its activities, content, implementation, and impacts. Letter grade only (A-F).

## 670. Seminar on Special Topics in Political Science (3)

Prerequisites: Graduate standing and consent of instructor.
Research, discussion, and critical evaluation of selected topics and problems of current interest in political science.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 695. College Teaching Practicum (3)

Prerequisite: Consent of Graduate Director.
Internship provides teaching experience in community college.
No more than three units of this practicum may be applied to the Masters requirements in Political Science.
Credit/No Credit grading only.
697. Directed Research (1-6)

Prerequisite: Consent of Department Chair.
Individual research or intensive study under the guidance of a faculty member. Three units required of non-thesis students who have been advanced to candidacy for the master's degree in political science.
A maximum of 3 units may be earned by students with credit in POSC 698. May be repeated to a maximum of 6 units. Letter grade only (A-F).
698. Thesis (1-4)

Planning, preparation and completion of thesis for the master's degree.

# PROFESSIONAL STUDIES <br> College of Health and Human Services 

Chair<br>Paul A. Bott<br>Department Office<br>Engineering Technology (ET), Room 234<br>Telephone<br>(562) 985-5633<br>FAX<br>(562) 985-8815<br>Faculty<br>Professors<br>Paul A. Bott, Donald Lauda<br>Assistant Professors<br>William Hickey, Peter Kreysa, Henry O'Lawrence, Victor C.X. Wang<br>Credential Analyst<br>Kim Bauer<br>Academic Advisor<br>Lissa Kukahiko<br>Distance Learning Administrator<br>Anthony Argott<br>Administrative Support Coordinator<br>Anne Bykerk-Plante<br>Students desiring information should contact the department office for referral to one of the faculty advisors, Credential Analyst, Graduate Advisor, Undergraduate Advisor, Designated Subjects Credential Coordinator, or Distance Learning Administrator.

Professional Studies is designed to enable persons to gain the competencies requisite for successful employment in secondary schools, community colleges and adult programs as teachers, coordinators and supervisors of vocational, occupational, career preparation, and related human resource development programs.

Instructional programs are offered on- and off-campus throughout California and out-of-state. Most off-campus instruction is offered via distance learning modes of video, Internet, integrated live instruction, and combinations of these three.

## Designated Subjects Credential (code 300)

This program of instruction identifies and develops on an individualized basis the teaching competencies requisite for successful employment in designated subjects programs, as required by the California Commission on Teacher Credentialing.

## UNDERGRADUATE PROGRAMS

## Bachelor of Science in Occupational Studies

California State University, Long Beach (CSULB) offers a Bachelor of Science Degree in Occupational Studies. This degree is targeted primarily towards employed persons serving in business, industry, labor, government and occupational education teachers and counselors serving in the public, private and non-profit sectors. The BS program will help these people grow in level of professional participation in their various occupational subject areas, knowledge of the respective training and development methods, and problems of work-life education in an information and technological society. The primary goal of the program is to improve the competencies of human resource development personnel to instruct in technical subjects, to design curriculum, to advise learners, and to evaluate curriculum and learner performance.

The Bachelor of Science degree requires 124 units of college work. The major consists of 73 units comprised of (a) a unit core of 27 units, (b) foundation and occupational competency coursework ( 12 to 25 units depending on student's option), and (c) options of 25 to 34 units. The foundation and occupational competency courses, generally lower division, are elected from (a) the social and behavioral sciences, (b) occupationally based technical courses, or (c) a combination of both. Nine units of occupational competence may be granted for prior learning in the Corporate Training, Research and Evaluation, Integrative Professional Studies, and Transitional Services options.

## Option in Corporate Training and Development (code OCSTBS02) (124 units)

The option in corporate training and development prepares students for human resource development positions as training specialists, training materials developers, and training systems analysts. These specialists serve as support personnel assisting in the analysis and interpretation of job analysis data and translating these data into training and development programs. They assist technical content experts in the design and delivery of instruction. The required courses for this option are: PROF 300, 330, 388I, 410, 411, 412, 417I, 418, 420, 421, 435, 456, 461, 485, 492, 494, 495; PROF 490 or an approved alternative from one of the following: ET 307, 309. This option requires 22 units of foundation and occupational competency coursework determined in consultation with a Professional Studies department academic advisor.

## Option in Research and Evaluation (code OCSTBS03) (124 units)

The option in research and evaluation prepares students for careers as labor market analysts, training evaluation specialists, and evaluation research specialists in public
postsecondary education, government employment development agencies, and private industry. These specialists develop evaluation guidelines, evaluate training and development programs including maintaining task lists and training program descriptions, determine the effectiveness and currency of instructional content and methods, and assess trainee performance in training and on-the-job. The required courses for this option are: PROF $300,330,410,411,412,418,420,421,422,456,480$, 483, 485, 490; EDP 400, 419. This option requires 25 units of foundation and occupational competency coursework determined in consultation with a Professional Studies department academic advisor.

## Option in Transition Services (code OCSTBS04) (124 units)

The option in transition services prepares students for professional positions in secondary and postsecondary occupational special education, rehabilitative services, and related adult services. Graduates develop competencies as educational and human resource development specialists in transition services for individuals with disabilities. The curriculum for this option was developed under research sponsored by the Office of Special Education and Rehabilitation Services, United States Department of Education. The required courses for this option are: PROF 300, 330 360, 410, 411, 412, 418, 420, 422, 456, 460, 463, 480, 485, 497, 499, 461; EDSP 350; ED P 405; REC 416 or an approved alternative from one of the following: CDFS 413, 418; COUN 430; SW 350, 351. This option requires 12 units of foundation and occupational competency coursework determined in consultation with a Professional Studies department academic advisor.

## Option in Vocational Arts (code OCSTBS05) (124 units)

This option is designed for teachers in employmentrelated educational programs that meet the requirements of the State Education Code, Sections 89220, 89221, 89222 and 89223. Specifically, candidates for this option must:

1. Teach or have taught at least 1,620 student contact hours in a full-time position or 1,000 student contact hours in a part-time position in an approved occupational education curriculum.
2. Hold a teaching credential authorizing service as a vocational teacher (community college instructors affected by AB 1725 are exempt from this requirement; however, they must demonstrate instructional competencies by completing prescribed teacher certification courses); and
3. Have worked at least seven years full-time or the equivalent in the field(s) named on the credential. Candidates, upon completion of these requirements and in consultation with their adviser, submit an application with documentation verifying occupational, managerial, teaching, and professional development experience. Upon approval of the application, the California State Board of Examiners for Vocational Teachers recommends advancement to degree candidacy. Advancement to candidacy includes the preparation of an individualized program emphasizing three areas of occupational studies: 1) the relation of education and work, 2)
teaching learners with special needs, and 3) research and evaluation. The required courses for this option are: PROF 300, 330, 410, 411, 412, 413; PROF 420 or 421 or 422; PROF 456 or 460 or 461 ; PROF 418 or 485 . This option requires foundation and occupational competency coursework as determined by the State Board of Examiners for Vocational Teachers and in consultation with a Professional Studies department academic advisor.

## Option in Integrative Professional Studies (code OCSTBS07) (120 units)

The integrative professional studies option provides students the opportunity to create a curriculum composed of courses and experiences that meet their individual career needs. Competence in leadership, management, professional communication, diversity, technology, and problem solving is the focus of this degree option. This option is designed for individuals who: 1) Have been out of high school or community college for several years; 2) Have at least five years of work experience; 3) Qualify for admission to the university as an upper division transfer student; and 4) Want and need a baccalaureate degree.

Students may use a combination of college transfer credit, military courses, credit-by-examination (CLEP), and portfolio credit for college-level learning achieved from work and life experiences. Transfer credits from professional or technical degrees earned at accredited institutions are accepted.

## Requirements

35 units: PROF 300, 330, 388I, 420 or 421 or 422, 456, 457I, 485, 492, 480, 483, 490.

Professional Competency (43 units): coursework determined in consultation with department academic advisor. Professional competency courses for completing the 120 unit requirement for graduation can be met in many ways, including PROF 301 (1-9 units), transfer technical courses and profession-related courses in other departments. Performance in college-level or proficiency examinations approved by CSU will also be accepted.

## GRADUATE PROGRAMS

## Master of Arts in Occupational Studies (code OCSTMA01)

The Master of Arts degree in Occupational Studies is available to qualified students preparing for professional careers in the fields of career, occupational, and vocational education. A major thrust is the development of qualified leadership personnel to serve occupational education programs in public and private education as well as related human resource development programs in California and the nation.

The graduate program in occupational studies consists of three parts. The first part is a 15 unit set of required or core coursework in the following areas:
History \& Foundations of Professional Education (PROF 501) Leadership Development (PROF 502)
Management Skills (PROF 503)
Research and Evaluation (PROF 505 and 696)

The second part is an area of specialization which is selected by the student in consultation with an advisor. Examples of program specialization areas follow:
Administrative studies - for persons interested in administration of occupational education in public or private sectors.
Special populations - for persons planning to work with learners who are culturally different, handicapped, and/or limited English proficient in occupational education settings.
Corporate training and development - for persons interested in development, implementation, and evaluation of training programs in a variety of business or industrial settings.
Career guidance - for persons interested in counseling and guidance services in education and employment settings.
Research and evaluation - for persons planning to work in research and evaluation units in public and private agencies or to pursue advanced graduate studies.
Curriculum and instruction - for persons interested in developing occupational education courses and programs in public and proprietary institutions.
The third program part is the decision to conduct a major research study (the thesis option) or to complete a comprehensive examination near the end of the Master's program.

Each applicant must submit a copy of transcripts for all college work to the program office, in addition to the official copies required by the Office of Admissions and Records.

## Prerequisites

1. A bachelor's degree in occupational studies, with a minimum of 24 upper division units in vocational education comparable to courses offered at this University; or
2. A bachelor's degree with a minimum of 24 upper division units comparable to courses offered at this University in the discipline in which the degree was awarded.
3. Successful completion of Departmental Writing Examination.

## Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy, including successful completion of the Graduation Writing Assessment Requirement (GWAR);
2. Completion of all core courses;
3. Maintenance of "B" average (3.0 GPA) in all work completed in graduate program;
4. Approval of Professional Studies Graduate Faculty and Director of Graduate Studies and Research, College of Health and Human Services.

## Requirements

1. Completion of PROF $501,502,503,505,696$;
2. Completion of 30 units of approved upper division and graduate courses and a thesis (PROF 698) and an oral presentation of the thesis approved by Department Graduate Committee; or 36 units of approved upper division and graduate courses and a written comprehensive examination.

## Master of Science in Emergency Services Administration (code OCSTMS01)

The Master of Science (MS) in Emergency Services Administration is designed to provide students with the conceptual foundation and managerial communication and analytical skills required for designing, testing and implementing an effective response to workplace and community emergencies. Such emergencies may involve the potential loss of human life and property due to fire, explosion, the release of hazardous chemicals, structural failures, natural calamities, and terrorist acts. The program has two major purposes: 1) to provide an understanding of the administration and management of emergency services with an emphasis on the roles and job expectations of emergency managers, and 2) to prepare students for leadership roles in emergency and disaster administration by stressing independent research, communication and writing skills, exposure to experts, and practical experiences of respected emergency services and disaster organizations. The intended audiences are practitioners from the public and private sectors who are engaged in the delivery or coordination of emergency services. The program is offered in the traditional classroom setting, and is enhanced with a careful blend of technology-assisted instruction.

## Admission Criteria

1. Obtain admission to graduate standing by completing and forwarding the official CSULB graduate admission forms and fees to the University and the Graduate Advisor, Professional Studies Department, CSULB. Each applicant for graduate standing shall have completed an appropriate baccalaureate degree from an accredited university.
2. Request that official transcripts from all colleges and universities attended be forwarded to the graduate advisor, Professional Studies Department, CSULB.
3. Have at least a 2.50 grade-point average in the last 60 semester units attempted.
Be accepted by the Professional Studies program and the graduate advisor for admission to the graduate program.

## Program Description

The Master of Science Degree in Emergency Services Administration is designed for individuals who work or wish to work as administrators in one of the areas of emergency administration. These areas include police and fire administration, public utilities, dispatch, and emergency (disaster) operations. The degree will equip students with a broad knowledge of the activities and the relationships of the emergency services to each other, to the community, and to other public and private entities that are affected by emergency services. Students may specialize in program development and evaluation, training, personnel, budgeting, or inter-agency relations.

## Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy, including successful completion of the Graduation Writing Assessment Requirement (GWAR);
2. Completion of all core courses;
3. Maintenance of "B" average (3.0 GPA) in all work completed in graduate program;
4. Approval of Professional Studies Graduate Faculty and Director of Graduate Studies and Research, College of Health and Human Services.

## Requirements

1. PROF 502, 505, 543, 650, 696, PPA 542 or 577.
2. Completion of 30 units of approved upper division and graduate courses and a thesis (PROF 698) and an oral presentation of the thesis approved by the Department Graduate Committee; or 36 units of approved upper division and graduate courses and a written comprehensive examination.
The graduate program consists of three parts. The first part is an 18-unit set of required core course work as indicated in (1) above. The second part is the elective component or area of specialization consisting of 18 units if the Comprehensive Examination option is chosen or 8 units for the Thesis option. Electives from the 400,500 , or 600 series are selected in consultation with a faculty advisor. The third part is to complete a thesis (PROF 698) or take a comprehensive examination.

## Courses (PROF)

## UPPER DIVISION

## 300. Orientation to Professional Studies (3)

Prerequisite: Qualified for admission to the baccalaureate degree program under California Education Code, Sections 89220, 89221, 89222, and 89223.
Philosophy and development of comprehensive employment-related education in California, its present place and functions in the total system of education. Preparation of the "Swan Bill" application and individualized program of studies.
Letter grade only (A-F).
301. Community and Professional Experiential Learning (1-9)
Prerequisites: PROF 300, upper division standing. Open only to majors in options OCSTBS02, OCSTBS03, OCSTBS04, OCSTBS07 of the Bachelor of Science in Occupational Studies degree.
Credit for supervised and documented field experience and professional development in an occupation.
Credit/no credit grading only. Course is repeatable up to 9 units.

## 330. Literacy for the Workplace (3)

Prerequisite: ENGL 100 or equivalent.
Principles of effective writing and oral communication for education and the workplace; extensive practice in various forms of writing; and case studies of education and workplace reports, negotiations, and oral presentations. Letter grade only (A-F).
Letter grade only (A-F).
360. Foundation of Transition Services (3)

Prerequisites: Consent of instructor.
Overview of the models, personnel roles, practices, and delivery systems of services for youth and adults with special needs in their transition from school to work and independent living.
Letter grade only (A-F).

## 3881. Technological Literacy (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing, ENGL 100.
Exploration of technological concepts and their impact on individuals, society and culture. Technology as a human adaptive system and its relationship to sociological and ideological systems.
Letter grade only (A-F). (Discussion 3 hours.)
*410. Curriculum Development for Designated Subjects (3)
Prerequisites: Enrollment in Designated Subjects Credential Program, BS or master's degree programs.
Techniques of curriculum planning and development in occupational and adult education.
Letter grade only (A-F).
*411. Instruction and Evaluation for Designated Subjects Teachers (3)
Prerequisites: PROF 410 or consent of instructor; enrollment in Designated Subjects Credential Program, BS or master's degree.
Techniques and evaluation of instruction in occupational and adult education. Components include motivation, presentation, application, and evaluation techniques necessary to teach all students in occupational and adult education.
Letter grade only (A-F).
*412. Advanced Program Development and Instruction (3)
Prerequisites: Enrollment in BS, master's or Designated Subjects Credential Program.
Advanced techniques of teaching designated subjects including curriculum, instruction, communication, program evaluation, classroom management, technology, and teaching practices for all students in occupational and adult education programs.
Letter grade only (A-F).

## *413. Foundations of Designated Subjects Credential Programs (3)

Prerequisites: Enrollment in BS, Master's or Designated Subjects Credential Program.
An examination of the foundations and principles of occupational education with a specific focus on programs subsumed under designated subjects credentials.
Letter grade only (A-F).

## 417I. Technology, Ethics, and Society (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing, ENGL 100.
A framework for understanding the ways in which human societies transform themselves through technological innovation. Ethical questions concerning the social effects of technological change.
*418. The Marketplace for Professional Education (3)
Studies of public and private agencies that serve persons who have the need to identify, prepare for and use workplace education; where such persons are placed, what they do, their successes and failures, and future trends and needs.

## *420. Program Evaluation (3)

Analysis of evaluation approaches for programs and systems. Exploration of program evaluation systems currently in operation and design of a functional evaluation plan for a program.
Letter grade only (A-F).
*421. Research Design (3)
Study of research designs applicable to a variety of professional fields. Calculation of basic statistics, development of research proposals, use of computers and statistical programs in professional research.
Letter grade only (A-F).
*422. Grants and Contract Writing (3)
Study of process of contract and grant proposal writing for public-and private-funding agencies, including budget preparation.
Letter grade only (A-F).
*435. Principles of Adult Education (3)
Instruction on the scope and function of adult education including the local, state, and federal levels. Principles and practices of adult education, philosophical perspectives, and professional issues are discussed.
Letter grade only (A-F).

## *456. Attitude Awareness in Education and the Workplace (3)

Principles of communication, human relations, understanding other people, attitude recognition, and development, and mental steps to motivation.

Letter grade only (A-F).

## 4571. Working Around the World (3)

Prerequisites: Completion of GE Foundation requirements, one or more exploration courses, upper division standing
The effects of religion, language and culture, political structure, economics, and physical environment on the development of the workplace and people's perceptions of work and occupations. Letter grade only (A-F).
*460. Instructional Methods for Learners with Special Needs (3)

Identification, assessment and instructional development strategies for students or employees with diverse needs.
Letter grade only (A-F).
*461. Instructional Methods for Teachers of Diverse Students (3)

Techniques of teaching sociologically, economically, and culturally diverse learners. Emphasis on methods, motivation, counseling, and instructional organization.
Letter grade only (A-F).
463. Job Development (3)

Prerequisites: Consent of instructor.
An overview of techniques and strategies needed to successfully develop employment opportunities for people with special needs. Letter grade only (A-F).
*470. Seminar (3)
Study of the major problems and issues confronting the educator and practitioner.
Letter grade only (A-F).
*480. Internship (1-4)
Internship in community, business, or school employment and training development programs that involve instruction, administration and research.
Letter grade only (A-F).

## 483. Senior Thesis or Project (1-3)

Identification of, planning, preparation and completion of a project to solve or research problems particular to a business, educational or industrial setting. Written report required.

## *485. Identifying Management Competencies (3)

Lecture and discussion focusing on identification and development of competencies requisite for effective program management, including discussion of the management of ideas, material, people, and processes and their interrelationships.
Letter grade only (A-F).
*486. Emergency Management Operations and Techniques (3)
Management operations and techniques in contemporary emergency service organizations. The role of supervisors, managers, and executives in the leadership process.
Letter grade only (A-F)
*488. Case Studies of Critical Incidents (3)
Case studies to illustrate commonly encountered problems and issues in the management of human-caused and natural disasters. Incidents will be studied for the purpose of learning best practices and for the development of mitigation, response, and recovery plans.
Letter grade only (A-F).
*490. Independent Study (1-3)
Individual research and study under the direction of a faculty member in areas not an integral part of any regular course. Written report is required.
May be repeated to a maximum of 3 units. Letter grade only (A-F).

## 492./592. Training the Trainer (4)

Needs assessment, instructional design, facilitation, evaluation, organizational development, succession planning and international and cross-cultural training.
Not open for credit to graduate students with credit in PROF 492. Letter grade only (A-F).

## 494./594. Organization Development (3)

Concepts, models, theories, and techniques for planning, facilitating, and evaluating interventions for organizational development.
Not open for credit to graduate students with credit in PROF 494. Letter grade only (A-F).

## 495./595. Succession Planning for Organizations (2)

Techniques to ensure the continued, effective performance of an organization by making provision for the development, training, and replacement of key people in work activities over time.
Not open for credit to graduate students with credit in PROF 495. Letter grade only (A-F).
*497. Practicum (1-6)
Action-oriented organized learning directed toward identifying the major problems and issues confronting education and work and suggesting solutions for the practitioner.
*499. Special Topics (1-3)
Topics of current interest will be selected for intensive group study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 501. Foundations of Professional Education (3)

History and development of education for work in the United States. Multiple purposes and principles, key federal legislation, and contemporary issues and developments affecting education for professional preparation and development.
Letter grade only (A-F).

## 502. Administrative Leadership (3)

Concepts and techniques of personal and professional administrative leadership.
Same course as PPA 502. Letter grade only (A-F).

## 503. Program Management (3)

Advanced principles and procedures of management emphasizing operations, and evaluation of employment and training related programs.
Letter grade only (A-F).

## 505. Critical Analysis of Issues and Problems in Education and the Workplace (3)

Prerequisite: Completion of other degree-required core courses. In-depth analysis of major research reports and review of historical and contemporary issues and problems. Review of various research methodologies used to examine issues and problems in the field.
Same course as PPA 505. Letter grade only (A-F).

## 508. Transition Services for Youth and Adults With

 Disabilities (3)Examination of various models for and approaches to providing education and employment-related services to disabled persons in transition from school to adult life.
Letter grade only (A-F).

## 510. Workforce Development Policy: Trends, Issues, and Analyses (3)

Prerequisite: Graduate standing.
Techniques for evaluating policy and for understanding the administrator's central role as a connector between public schools and universities and between business, industry, and local communities.
Letter grade only (A-F).

## 514. Municipal Law for Administrators (3)

Examination of major laws and legal issues affecting local government and governmental agencies.
Letter grade only (A-F). Same course as PPA 514.

## 535. Intergovernmental Relations (3)

Fundamental concepts and issues of intergovernmental relations in the United States.
Letter grade only (A-F). Same course as PPA 535.

## 542. Emergency Planning and Management (3)

The planning and management processes and the issues involved in large-scale emergencies. The nature of natural and technological risk and emergency will be explored via case studies. Public sector roles in contingency planning and response will be assessed.
Letter grade only (A-F). Same course as PPA 542.
543. Legal, Economic, and Human Issues in Emergency Administration (3)
Legal, strategic, political, economic, ethical, and human issues encountered in the management of disasters or major traumatic public events.
Letter grade only (A-F). (Discussion 3 hours.)
555. Government Budgeting and Finance (3)

The formulation phase in the budget cycle. Major concepts and skills associated with budget preparation for all levels of government.
Letter grade only (A-F). Same course as PPA 555.

## 577. Public Sector Human Resources Management (3)

The civil service/merit system and its impacts on public personnel systems; laws which affect the operation of a personnel system; impact of labor negotiations on personnel systems; written policies and procedures; the personnel system as a change agent.
Letter grade only (A-F). Same course as PPA 577.
591. Corporate Training Development (3)

The selection and organization of corporate training curricula and development of courses of study to be used in public and private professional education programs.
Letter grade only (A-F).

## 592./492. Training the Trainer (4)

Needs assessment, instructional design, facilitation, evaluation, organizational development, succession planning and international and cross-cultural training.
Not open for credit to graduate students with credit in PROF 492. Letter grade only (A-F).

## 593. Corporate Training Methods (3)

Teaching techniques, philosophy, organization and planning in corporate training programs, and public and private education. Letter grade only (A-F).

## 594./494. Organization Development (3)

Concepts, models, theories, and techniques for planning, facilitating, and evaluating interventions for organizational development.
Not open for credit to graduate students with credit in PROF 494. Letter grade only (A-F).
595./495. Succession Planning for Organizations (2)

Techniques to ensure the continued, effective performance of an organization by making provision for the development, training, and replacement of key people in work activities over time.
Not open for credit to graduate students with credit it PROF 495. Letter grade only (A-F).
650. Graduate Seminar (3)

Study of selected topics including important legislation, industrial innovations, technical change, and contemporary problems.
Topics will be announced in Schedule of Classes. May be repeated for a maximum of 6 units. Same course as PPA 651. Letter grade only (A-F).

## 696. Research Methods (3)

Prerequisite: PROF 421 or equivalent.
Selecting, defining and presenting methods of research; demonstration of research theory to problem solution.
Letter grade only (A-F).
697. Directed Studies (1-3)

Prerequisite: Advancement to candidacy.
Research in an area of specialization under the direction of a faculty member.
Letter grade only (A-F).
698. Thesis (1-4)

Prerequisite: Advancement to candidacy.
Planning preparation and completion of a thesis.
Letter grade only (A-F).

# PSYCHOLOGY <br> College of Liberal Arts 

Department Chair<br>Kenneth F. Green<br>Department Office<br>Psychology Building (PSY), Room 100<br>Telephone / FAX<br>(562) 985-5001 / (562) 985-8004<br>Website<br>http://www.csulb.edu/~psych/<br>Faculty<br>\section*{Professors}<br>James H. Amirkhan, Alexander L. Beckman, Virginia L. Binder (Emerita), Keith R. Colman (Emeritus), Michael E. Connor (Emeritus), David A. Dowell, Martin S. Fiebert, Dennis G. Fisher, Kenneth F. Green, Joellen T. Hartley (Emerita), Scott L. Hershberger, Ralph B. Hupka (Emeritus), Dale O. Jorgenson, John R. Jung (Emeritus), Robert W. Kapche (Emeritus), Kevin MacDonald, Patricia Rozee, Sara W. Smith (Emerita), Thomas Z. Strybel, Robert E. Thayer, Cher C. Thomas, David J. Whitney<br>\section*{Associate Professor}<br>Dan Chiappe, Young-Hee Cho, William Kelemen, Diane W. Lee, Lisa Maxfield, Sherry A. Span<br>\section*{Assistant Professors}<br>Courtney Ahrens, Chi-Ah Chun, William Pedersen, Wendy Quinton, Kim-Phuong L. Vu<br>Department Administrator<br>Sheri Hale<br>Undergraduate Coordinator / Telephone<br>Miranda Barone / (562) 985-5011<br>Peer Advising Office / Telephone<br>PSY 206 / (562) 985-5680<br>Graduate Coordinator / Telephone<br>Diane Roe / (562) 985-5000

Psychology is the science of behavior. It seeks to understand the causes of behavior of individuals in terms of biological, environmental, social, and cultural variables. The Department has wide and varied course offerings and is housed in a building with specially-designed facilities, including computer rooms and laboratories in physiological, human factors, social, clinical, and other areas of psychology.

The Department of Psychology offers the Bachelor's degree and three Master's degrees.

The Bachelor's degree provides solid preparation for students who aim to: seek further study of psychology in graduate programs; pursue a career in any field that deals with people, such as guidance counseling, human resources, nursing, social work, and teaching; or seek an understanding of behavioral principles while pursuing a well rounded education.

The Master's Programs provide specialized training in three areas. The Master of Arts - Research Program prepares students for research and for continued study at the doctoral level. The Master of Science in Human Factors provides training in human-machine interactions, leading to employment or to doctoral study. The Master of Science in Industrial-Organizational Psychology provides training in organizational and personnel work, leading to employment or to doctoral Study.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Psychology (code PSY_BA01) (120 units)

The Psychology Department maintains an undergraduate advising and admissions office in Psychology Building Room 206, (562) 985-5680, www.csulb.edu/~psyugadv/. Advisors are available year round to assist students with admission, registration, degree requirements, and information about graduate study. An undergraduate handbook is available for purchase.

The number of applicants to the major in Psychology has typically exceeded the number that can be accommodated by the department's resources. For this reason the undergraduate major has been designated as impacted by the California State University.

## Admission Under Impaction

To be eligible for admission to Psychology, applicants must demonstrate the following prior to the semester for which the application is submitted: Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed 60 units applicable toward a CSULB degree prior to the term for which the application is submitted. Applicants must have completed the following prerequisite courses or articulated equivalents, each with a minimum grade of "C": PSY 100, 110, and 200. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average, with a minimum of 2.25 . Students provisionally admitted to the major must complete PSY 301 with a passing grade no later than the end of their first semester in the major, or they will be dropped from the major.

## Procedure for Admission to the Major

Freshman students: Freshman applicants to the Bachelor of Arts in Psychology will be placed in the pre-major code for psychology. Acceptance into the pre-major category does not imply or assure subsequent acceptance into the major.
Continuing students: Continuing students (including transfer applicants who were not admitted to the university as psychology majors) seeking admission to the major in
psychology must submit a supplemental application to the department by February 18 for the fall semester or by September 24 for the spring semester. Students with less than 60 units may be designated as pre-majors.
Transfer students: Transfer applicants must apply to the University during the initial filing period of October and November for the following fall semester. They must indicate their choice of major on the application. Admission will be conditional based upon submission of evidence that the requirements noted above will be satisfied by the start of the first semester on campus.

## Learning Goals and Technical Skills

Students who graduate with a major in psychology should have current knowledge of:

1. the major theories in psychology and their influences across subfields and time.
2. the major methodologies of psychological research and fundamental statistical concepts.
3. the biological processes underlying behavior.
4. sensation, perception, information processing and retention.
5. how behaviors develop and change throughout the life span.
6. how internal, environmental, and social factors influence behavior.
7. individual differences in behavior, including those related to gender, ethnicity, and culture.
8. different perspectives on the origin and treatment of abnormal behavior.
9. ethical issues in teaching, research, and the practice of professional psychology.
In the course of learning the above, students are expected to graduate with the ability to:
10. design and implement research, analyze data appropriately and judge the significance of findings.
11. critically evaluate psychological research as well as popular notions of human nature.
12. use the primary literature of the field and prepare a clear, organized summary of a topic.
13. use computers for the preparation of manuscripts, the analysis of data, and communication.
14. understand and work effectively with a diversity of individuals and groups.
15. apply theory and research to contemporary problems.
16. maintain currency in the field and utilize that knowledge in their lives.

## Requirements

The psychology curriculum is designed to provide undergraduate students with a broad background in the principles of Psychology.

Lower Division: (14 units) PSY 100, 110, 141, 200. Upper Division:

1. 3 units - PSY 301;
2. 6 units - two courses from PSY 331, 332, 333, 336; 340
or 341 or 342;
3. 6 units - two courses from PSY 351, 356; 361 or 365;
4. 6 units - two courses from (not from the same group):
a. PSY 352, 354, 366, 368, 370;
b. PSY 310, 314, 315, 359;
c. PSY 339I, 346I, $373,375 \mathrm{I}, 378,381$;
5. 6 units -400 level PSY courses. No more than 3 units from 405, 406A or 406B may be counted in this category. PSY 499 cannot be counted to satisfy this requirement.
6. 6 units - any upper division psychology courses not used to satisfy the requirement of sections 2 through 5 ;
7. 6 units - upper division units in American Indian Studies, American Studies, Asian and Asian American Studies, Anthropology, Black Studies, Chicano and Latino Studies, Economics, Educational Psychology, Geography, History, Human Development, Political Science, Social Work, Sociology, Women's Studies. At least 3 units must have an emphasis in contemporary U.S. ethnic studies. A list of acceptable ethnic studies courses may be obtained from the Psychology Advising Office in PSY 206.
Students are advised to consult with the Psychology
Advising Office for course choices most relevant to their individual goals.

## Honors in Psychology

## Admission Requirements

1. Admitted to the major.
2. A 3.5 GPA in all Psychology courses.
3. At least a 3.25 overall GPA.
4. Letter of support from a psychology faculty member agreeing to serve as Honors Thesis Chair.
5. Submit honors application to the Psychology Honors Advisory Committee.

## Requirements

1. Complete all regular requirements for the psychology major.
2. Complete the following: PSY 310 ( 4 units), 490 H ( 3 units), 496H (3 units), 498H (3 units).
3. Complete 3 units in any other 400-level psychology course exclusive of PSY 405, 406, or 499.

## Minor in Psychology (code PSY_UM01)

The Minor in Psychology is available to any nonPsychology major.

A minimum of 23 units which must include: PSY 100, 110, 141, and 200, nine upper division psychology units including at least one course from PSY 331, 332, 333, 336, 340, 341, or 342; and at least one course from PSY 351, 356, 361, or 365; and one elective.

## GRADUATE PROGRAMS

Information about graduate programs can be obtained by examining the Department's web site www.csulb.edu/~psych/ or by contacting the Graduate Coordinator.

The Department of Psychology offers three options for graduate study leading to the Master's degree. Two options lead to the Master of Arts degree, one in Research and one in Industrial-Organizational Psychology. One option leads to the Master of Science degree, in Human Factors. In each option a basic core of courses, including a thesis, is required; however, there is the opportunity for additional work in areas of special interest.

The Master of Arts - Research program prepares students for doctoral study, provides a general background in Psychology, and offers electives in clinical, physiological, and other traditional areas of psychology. The Master of Arts in Industrial-Organizational Psychology prepares students primarily for professional work in business setting, although some students proceed to advanced study. The Master of Science in Human Factors program prepares students for careers in applied experimental psychology, with emphases on aviation psychology and computer usabilty.

## Admission to Graduate Programs

An application for admission may be obtained on the Psychology department website (www.csulb.edu/~psych) or by writing directly to the Psychology Graduate Office. Acceptance by the department is contingent upon (a) GPA based on last 60 semester units available at time of application; (b) Graduate Record Examination (GRE) scores on the verbal and quantitative sections; and (c) three letters of recommendation. For entry in the fall semester, all application materials, including complete transcripts, GRE scores and letters of recommendation, must be received by the department Graduate Coordinator by March 1 for the Master of Arts Research option and the Master of Science Human Factors option. Beginning with the Fall 2006 entry semester, the Master of Arts Industrial and Organizational option will have an application deadline of February 14.

## Financial Support

Students accepted into the graduate programs may apply for graduate assistantships (which provide monthly stipends) in Psychology or related departments on campus. Federal Work Study assignments are available in the Department, but must be applied for through the University Financial Aid Office one or two semesters prior to obtaining the assignment; other aid available includes the Graduate Equity Fellowship (GEF). One student from each Master of Arts program's entering class may be awarded a J. Robert Newman Scholarship. A Boeing University Relations Human Factors Graduate Scholarship is offered through the Master of Science program.

## Master of Arts in Psychology

## Option in General Research (code PSY_MA01)

This 30-unit degree program provides graduate psychology training for further study leading toward a doctorate and careers requiring masters level training. Core courses include quantitative and research methods and courses in the basic content areas of Psychology. Students from our program who later enter doctoral programs consistently inform us that they find themselves very well prepared for doctoral study as compared to other students.

## Prerequisites

1. A bachelor's degree with a major in psychology that includes:
A. two courses from the following (not from same group):
a. PSY 331, 332, 333
b. PSY 336
c. PSY 340, 341, 342
B. one of the following: PSY $351 ; 356 ; 361 ; 365$
C. PSY 310 or
2. A bachelor's degree with a major other than psychology and 24 units of upper division psychology substantially equivalent to those required for the baccalaureate degree at this university, including:
A. two courses from the following (not from same group):
a. PSY 331, 332, 333
b. PSY 336
c. PSY $340,341,342$
B. one of the following: PSY $351 ; 356 ; 361 ; 365$
C. PSY 310
3. Six units of college level work in chemistry, physics, biology or mathematics as approved by the graduate coordinator. No more than three of the six units may be in approved mathematics courses.

## Advancement to Candidacy

Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students. Advancement to Candidacy also signifies approval of a plan of study by the graduate student's major, department, and college. The requirements to advancement are:

1. Application for Advancement to Candidacy must be completed prior to or concurrent with enrollment in PSY 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Arts, Research option degree.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. A minimum 3.0 overall GPA and a 3.0 GPA in all units undertaken for the program (at least 6 graduate units).
6. Enrollment in regular session.

## Requirements

1. The student must complete, as a graduate student, 30 units of graduate coursework (501-698), 24 of which must be in Psychology (not including PSY 697) including:
a. either PSY 511 or 512 if 411 or 412 or equivalent not taken as an undergraduate;
b. one course chosen from PSY $518,527,533,541$, 551,556 , or 582 , if corresponding 400 -level course or equivalent not taken as an undergraduate;
c. PSY 696 (comprehensive exam required);
d. three courses chosen from PSY 631, 632, 633, 634, 637, 651, 656 or 661 (with comprehensive exams in two of the three courses); PSY 698 (6 units).
2. With the graduate coordinator's approval a maximum of six units from related areas may be used for six of the 30 units.
3. Attendance at six Department Colloquia, four of which must be completed prior to preliminary oral examination, all six must be completed prior to final oral examination.
4. Completion of all requirements as established by the M.A. Research Committee.
5. Comprehensive examinations taken in three of the four required graduate seminars, as outlined in 1c and 1d above.
6. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis.

## Option in Industrial and Organizational Psychology (code PSY_MA02)

Students admitted to this 30-unit program prepare for business and industrial positions including personnel selection and organizational development, employee training, applicant and employee testing, etc. Graduates usually go directly into business and industry, through some enter Ph.D. programs.

## Prerequisites

1. A bachelor's degree with a major in psychology or 24 upper division units of psychology.
2. PSY 200, 310,314 or 315,332 or 333 and 351 or $453 / 553$. Students may be admitted to the MAIO program if they lack only one required course. The missing course must be completed within the first year of graduate study. However, PSY 314 or 315 AND 351 or $453 / 553$ must be completed prior to MAIO program entry, as they are prerequisites for the first semester MAIO program coursework. Students missing more than one prerequisite course at the time of application may be offered provisional admission if they submit an approved plan to take the missing courses prior to admission to the program.

## Advancement to Candidacy

Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students. Advancement to Candidacy also signifies approval of a plan of study by the graduate student's major, department, and college. The prerequisites to advancement are:

1. Application for Advancement to Candidacy must be completed prior to or concurrent with enrollment in PSY 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Arts, Industrial and Organizational option degree.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. A minimum 3.0 overall GPA and a 3.0 GPA in all units undertaken for the program (at least 6 graduate units).
6. Be enrolled in regular session.

## Requirements

1. The student must complete a minimum of 36 units of graduate course work. The following courses are required: PSY 581, 585, 515, 582, 590 (topic subject to Graduate Coordinator approval), 681, 683, 686, 688, and 698; two courses chosen from 511 or 512 or an approved substitute.
2. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis.
3. Students with credit in $411,412,415$, or 482 as undergraduates may petition the MAIO Program Committee to substitute a maximum of 3 units from related areas towards the 36 unit program.

## Master of Science in Psychology Option in Human Factors (code PSY_MS04)

The Option in Human Factors under the MS in Psychology is designed to prepare students to apply knowledge of psychology to the design of jobs, information systems, consumer products, workplaces and equipment in order to improve user performance, safety and comfort. Students in the program acquire a background in experimental psychology and research methods. They are trained in the application of the material through courses in human factors, computer applications and interface design. Special topics seminars, in areas such as largescale simulation and usability testing, complement the core program of study. Finally, students complete a thesis in their chosen area of human factors.

This option is designed as a terminal degree, but also provides excellent preparation for advanced graduate work.

## Prerequisites

1. An undergraduate major in Psychology or in another field with 24 units of upper division psychology. A minimum grade point average of approximately 3.0 for the last 60 semester units (90 quarter units) and for all Psychology units.
2. The following psychology courses or their equivalents: PSY 310, 331, 332. Students lacking only 310 may be admitted to the program but must complete the course their first semester in attendance.
Recommended: CECS 174 or any course in computer programming; One of the following psychology courses or their equivalents: PSY 340, 341, 342.

## Advancement to Candidacy

Satisfy the general requirements of the university for advancement to candidacy.

## Requirements

1. A minimum of 36 units of upper division and graduate work including PSY 511, 518, 527, 627, 633, 697, 698, 533 or 634; MAE 508, CECS 448; and 1 course chosen from PSY 512, 544, 696; ENGL 419 or otherwise approved by the program committee.
2. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis.

## Courses (PSY)

## LOWER DIVISION

## 100. General Psychology (3)

Prerequisite: Completion/concurrent enrollment in ENGL 100 or equivalent.
Introduction to the scientific study of human behavior. Provides a basis for further study and for application to everyday life. Topics include biological foundations of behavior, motivation, emotion, learning, memory, thinking, personality, development, social behavior, abnormal behavior, methods of therapy.
(CAN PSY 2)

## 110. Introductory Statistics (4)

Prerequisites: PSY 100, ENGL 100, and eligible to take a General Education Mathematics course.
Calculation and meaning of statistical measures. Descriptive and inferential statistics.
Not open for credit to students with credit in PSY 210. (Lecture 3 hours, laboratory 2 hours.)

## 130. Critical Thinking (3)

Prerequisite: Completion/concurrent enrollment in ENGL 100 or equivalent.
The nature of critical thinking; models and strategies; common fallacies of reasoning; self-regulation in the thinking process; application of critical thinking to specific areas.
Not open for credit to students with credit in PSY 230.

## 141. Psychobiology (3)

Prerequisites: PSY 100 and ENGL 100 or equivalent. Introduction to the study of behavior from a biological point of view. Biological systems and processes underlying behavior, with emphasis on brain mechanisms, presented in the context of fundamental concepts and issues in psychology.
Not open for credit to students with credit in PSY 241.
150. Personality and Social Behavior (3)

Prerequisite/Corequisite: One of the Foundation courses
Psychological principles pertinent to the understanding of personality and interpersonal dynamics. Discussion of research and theories of social motivation, conflict and anxiety, adjustment mechanisms and personality change.

## 200. Research Methods (4)

Prerequisites: PSY 100, 110 or equivalent and ENGL 100 or equivalent.
Introduction to basic research methods in Psychology. Principles of experimentation, naturalistic observation, correlational studies.
(Lecture 3 hours, laboratory and field 3 hours.)

## UPPER DIVISION

## 3001. Mind Control or Freedom (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Theories of persuasion and how people control others using informational, manipulative and coercive approaches; sources of power in society; and the psychological and ethical implications of freedom and responsibility in coping with control attempts by friends, government, advertisers, cults.

## 301. Introduction to Psychology as a Discipline and Profession (3) <br> Prerequisite: PSY 100.

Covers scope and value of psychology major including preparation for graduate work, careers available at varying degree levels, ethical considerations, key historical concepts, and essential skills like library search techniques, using APA format, and study skills.
(6 hrs act.)

## 310. Intermediate Statistics (4)

Prerequisite: PSY 110 or introductory statistics course.
Basic theoretical concepts of statistics and use of these concepts in selection and development of model testing, hypothesis testing and parameter estimation procedures. Both single measure (univariate) and correlation (bivariate) concepts are included. (Lecture 3 hours, laboratory 2 hours.)

## 314. Psychological Assessment (3)

Prerequisites: PSY 110, 200.
Principles of assessment applied to the measurement of individual behavior and to programs intended to affect behavior. Includes interviews, tests and other methods.

## 315. Principles of Psychological Testing (3)

Prerequisites: PSY 110 or one statistics course.
Principles and practices of group and individual testing in the fields of intelligence, aptitude, achievement, personality and interest. Emphasis on the evaluation of tests as measuring devices, their applicability and limitations.

## 331. Sensation and Perception (3)

Prerequisites: PSY 141, 200.
An introduction to the scientific study of sensory processes and perceptual principles from a psychophysical and physiological perspective, and the methods used to investigate them. Topics may include vision, audition, psychophysics, and object and space perception.

## 332. Cognition (3)

Prerequisites: PSY 141, 200.
Study of higher-order processes basic to the acquisition of knowledge. Includes thinking, problem solving, creativity, information processing, decision making, judgment, concepts and imagination.

## 333. Psychology of Learning (3)

Prerequisites: PSY 141, 200.
Learning is a relatively permanent change in behavior resulting from experience. Emphasizes interaction of biological and environmental variables in the processes of instinct, habituation, sensitization, Pavlovian conditioning, instrumental learning, and cognition; examination of methods, theory and applications.

## 336. Psychology of Emotion (3)

Prerequisites: PSY 141, 200.
Discussion of research and theories of emotions. Includes the evolution of emotions, neurophysiological mechanisms of emotion, development of emotions, expressions of emotions, and emotions in social relationships, with an emphasis on the emotions of anger, grief, happiness, jealousy, and love.

## 339I. Psychology of Sport Behavior and Athletic Performance (3)

Prerequisites: Completion of the GE Foundation, PSY 100 and upper division standing.
Psychological dimensions of attitudes, behaviors, and performance in sport and exercise environments.
Same course as KIN 339I.

## 340. Physiology of Behavior (3)

Prerequisites: PSY 141, 200.
An in-depth examination of central nervous system (CNS) components that create our behavioral capabilities. Topics include major structural and functional features of the neuron and of selected systems representative of the sensory, integrative, and motor capabilities of the CNS.

## 341. Neuropsychology (3)

Prerequisites: PSY 141, 200.
Localization of brain regions responsible for human capabilities as studied in patients with brain damage, normal people, and nonhumans. How brain damage is assessed and treated. Relation of findings to function of normal brains.

## 342. Psychopharmacology (3)

Prerequisites: PSY 141, 200.
Introduction to the effects of major classes of psychoactive drugs on the central nervous system. Topics include anatomical and functional characteristics of neurotransmitters systems; pharmacology of drug administration; and physiological and psychological actions of selected classes of psychoactive drugs.

## 346I. Human Sociobiology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Human social behavior as seen in context of evolutionary biology. Topics include the importance of kinship in human societies, altruism and reciprocity, human sexuality, parent-offspring relations, ethical and legal systems and religion.

## 350I. Psychology and Contemporary Social Issues (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Application of social psychological principles toward understanding major contemporary social issues. Each issue covered is presented in its historical context, and the economic, political, social and cultural aspects are examined.

## 351. Social Psychology (3)

Prerequisites: Completion of the GE Foundation and PSY 100.
Study of individuals and groups as they are affected by social interactions. Topics may include social cognition, attitudes and persuasion, social influence, interpersonal perception and attraction, aggression, altruism, and group dynamics.
Not open for credit to students in SOC 335I.

## 352. Psychology of Male Roles (3)

Prerequisite: PSY 100.
Exploration of male roles as they affect interactions between men and men, men and women, and men and children, as well as interactions related to work and play. Course is designed to enhance personal understanding through an examination of theory, research and experience.

## 354. Psychology of Women (3)

Prerequisite: PSY 100.
Examination of women's roles throughout the lifespan including gender differences, body image, pregnancy, sexuality, communication, relationships, motherhood, work, physical and mental health. Attitudes toward women, including violence against women, may be explored.
This course is for both men and women.

## 356. Personality (3)

Prerequisites: Completion of the GE Foundation and PSY 100.
Survey of classical theories and methods in Personality psychology, with a sampling of current research. Examines how and why people differ in personality, and the ways these differences are reflected in thoughts, feelings, motivations, and behaviors.

## 359. Self-Observation and Self-Development (3)

## Prerequisite: PSY 100.

Examination of personal traits and behavior patterns as reflected by objective measures, group interactional procedures and video feedback. Development of self through systematic selfobservation.

## 361. Psychology of Child and Adolescent Development (3)

Prerequisites: Completion of the GE Foundation and PSY 100.
Developmental change processes from prenatal development through adolescence. Emphasis on ethnic, gender, and social class differences in development combined with emphasis on the universal features of human development. Topic coverage includes physical-motor, social, physiological, and cognitive aspects of development.

## 365. Psychology of Adult Development and Aging (3)

Prerequisite: PSY 100.
Methodological and theoretical problems and issues in the study of developmental change processes from young adulthood through old age. Topical coverage includes physical-motoric, social, physiological and intellectual aspects of behavioral functioning.
366. Fathers and Fathering: A Psychosocial View (3)

Prerequisites: PSY 100; SOC 100 or CDFS 111.
Overview of psychological literature on parenting with emphasis on fathers/fathering in the U.S. Focus on current literature and research regarding the perceived and changing roles of fathers, including ethnic fathers, in an effort to diminish stereotypes.
This course is for both men and women. Same course as CDFS 358.
368. Asian American Personality and Mental Health (3)

Prerequisites: Completion of PSY 100 and upper division standing.
Survey of psychological issues facing Asian Americans, including the historical, sociopolitical, and cultural influences that shape personality and mental health of individuals in the diverse population group.

## 370. Abnormal Psychology (3)

Prerequisites: Completion of the GE Foundation and PSY 100.
Overview of abnormal behavior as a portion of continuum of human behavior. Covers field's historical approaches, range of psychological disorders, as well as causes, consequences, and treatment of these disorders.

## 373. Introduction to Clinical Psychology (3)

Prerequisite: PSY 370.
Survey of field of clinical psychology including an introduction to its history, diagnostic procedures, therapeutic process, clinical training, research approaches, and ethical issues.

## 375I. Community Psychology (3)

Prerequisites: Completion of the GE Foundation, PSY 100, and upper division standing.
Basic concepts and skills of community psychology, including community assessment, community intervention, program evaluation, and social policy analysis, relationships between social systems and individual behavior. Emphasis on economically disadvantaged, minorities, women, youth, and the aged.
378. Health Psychology (3)

Prerequisite: PSY 100.
Research and theory regarding attitudes, beliefs, and behaviors related to health and illness. Individual difference variables will be examined. Analysis of applications of psychology to prevention, counseling, and treatment of major health problems.

## 381. The Psychology of Work Behavior (3)

Prerequisite: PSY 100.
Introduction to theories, methods, findings, and applications of industrial-organizational (I-O) psychology. Topics covered include job analysis, employee recruitment and selection, performance appraisal, employee training and development, work stress, teams, satisfaction, motivation, and leadership.

## 3821. Introduction to Cognitive Science (3)

Prerequisites: Completion of all Foundation courses; at least one Explorations course; upper-division standing; at least six units in two areas chosen from computer Science, Linguistics, Philosophy, and Psychology.
Introduction to cognitive science including historical development, foundational philosophical presuppositions, core topics, underlying theoretical framework, explanatory goals, different methodologies and theoretical contributions of its constitutive disciplines.
Same course as PHIL 4821.

## 383. Women, Family, and Work Issues (3)

Prerequisite: PSY 100 or equivalent.
Opportunities and challenges women in U.S. face with family and work issues explored. Specifically, cultural influences, complex family compositions, work demands, and the collective influence of these factors on women's life choices examined.

## 390. Special Topics in Psychology (3)

Prerequisite: Consent of instructor.
Topics of current interest in psychology selected for intensive development.
May be repeated to a maximum of 9 units with different topics; no more than 6 units may be used for the major.
401./501. History of Psychology (3)

Prerequisites: Psychology major, PSY 301; six upper division units in psychology.
Historical background and development of psychology as a science. Contributions of major individuals and systems.
Letter grade only (A-F)

## 405. Field Work in Psychology (3)

Prerequisites: Psychology major, PSY 301; 12 upper division units in Psychology, 3.0 GPA, letters of recommendation, consent of instructor:

Supervised internship in a Psychology-related position in the surrounding community. Placements include schools, hospitals, clinics, and community mental health agencies.

Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters.

## 406A,B. Applications of Psychology (3)

Prerequisite: Psychology major, PSY 301; consent of instructor. Theoretical and laboratory training in the topic areas are followed by applied work with clients, schools, businesses, etc., as appropriate. Students are supervised by the course instructor.
Students apply for 406A-B during the semester before the courses are taken. Letter grade only (A-F)

## 407./507. Introduction to Family Therapy (3)

Prerequisites: Psychology major, PSY 301; PSY 373, 475, or consent of instructor.
Survey of the field of family therapy including origins of differences in family structure, historical development of family therapy theory and practice.
Letter grade only (A-F).

## 411./511. Statistical Design and Analysis of Experiments

 (3)Prerequisites: Psychology major, PSY 301; PSY 310 or consent of instructor.
Focuses on logic, application, and interpretation of analysis of variance (ANOVA) models in addition to other statistical procedures. Various issues of research design and experimentation are also covered.
Letter grade only (A-F).
412./512. Multivariate Statistical Analysis (3)

Prerequisites: Psychology major, PSY 301; PSY 310 or consent of instructor.
Covers logic, application, and limitations of multivariate (multiple independent and dependent variables) statistics. Topics may include multivariate analysis of variance, single and multiple correlation/regression, logistic regression, factor analysis, and path analysis.
Letter grade only (A-F).
418./518. Computer Applications in Psychology (3)

Prerequisites: Psychology major, PSY 301; PSY 310 or equivalent or consent of instructor.
Foundations of computer technology and its application to psychology. Emphasis on real-time control by digital computers in psychological research and applications. (Lecture 2 hours, laboratory 2 hours.)
Letter grade only (A-F).

## 427./527. Human Factors (3)

Prerequisites: Psychology major, PSY 301; PSY 310 and two of the following: PSY 331, 332 or 333.
Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of human factors psychologists. These skills will include systems and analysis, cognitive task analysis, rapid prototyping and usability testing.
(Lecture 2 hrs, laboratory 3 hours) Letter grade only (A-F).
433./533. Research in Cognition and Learning (3)

Prerequisites: Psychology major, PSY 301; PSY 310 and 331 or 332 or 333.
Research methods in cognition, learning, and perception. Laboratory includes experiments on selected topics. (Lecture 2 hours, laboratory 3 hours.)
Letter grade only (A-F).

## 436./536. Psychology of Mood (3)

Prerequisites: Psychology major, PSY 301; PSY 310 or consent of instructor.
Analyses of normal mood states, including survey of existing literature. Topics may include the relationship of mood to important antecedents and consequences such as sleep-wake cycles, exercise, nutrition, physical health, stress, and cognition.
Letter grade only (A-F).

## 438./538. Psycholinguistics (3)

Prerequisites: Psychology major, PSY 301; six units of linguistics or upper division psychology.
Psychological and linguistic approaches to the study of language.
Theory and research in the production and understanding of language, language acquisition, memory for language, and use of language in its social context.
Letter grade only (A-F).

## 439./539. Language Acquisition (3)

Prerequisites: Psychology major, PSY 301; six units of linguistics or upper division psychology, or consent of instructor.
Theory and research on acquisition of first and subsequent languages in children and adults. Psycholinguistic perspectives on phonological, syntactic, semantic, and pragmatic aspects of language. Interacting roles of cognitive processes, individual differences, social influences, and cultural context will be stressed.
(Seminar.) Letter grade only (A-F)
441./541. Research in Physiological Psychology (3)

Prerequisites: Psychology major, PSY 301; PSY 310 and one of the following: PSY 340, 341 or 342.
Research methods in psychobiology. Includes fundamentals of neuroanatomy, surgical procedures for stimulation, lesioning and recording, and pharmacological procedures used in neuropsychological research.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
444./544. Cognitive Neuroscience (3)

Prerequisites: Psychology major, PSY 301; PSY 310, 332 and one of the following: PSY 340, 341 or 342.
Explores brain systems responsible for cognitive processes in normal humans, integrating theory from texts and current research from original sources.
Letter grade only (A-F).

## 451./551. Research in Social Psychology (3)

Prerequisites: Psychology major, PSY 301; PSY 310, 351, or consent of instructor.
Research methods and problems in social psychology. (Lecture 2 hrs, lab 3 hrs )
Letter grade only (A-F).

## 453./553. Principles of Group Dynamics (3)

Prerequisites: Psychology major, PSY 301; PSY 351 or consent of instructor.

Behavior in groups with attention to such factors as leadership, followership, interaction and influence including organization, management, morale, and efficiency. Problems, techniques and methods of investigation.
Letter grade only (A-F).

## 456./556. Research in Personality (3)

Prerequisites: Psychology major, PSY 301; PSY 310, 356, or consent of instructor.
Examination of common research methods, especially as they apply to particular theoretical personality paradigms. (Lecture 2 hours, laboratory 3 hours.)
Letter grade only (A-F).

## 457. Psychology of Sexuality (3)

Prerequisites: Psychology major, PSY 301; PSY 351 or 356 or 370.
Survey of topics in human sexuality with emphasis on
developmental psychology of sexuality, attitudes and feelings related to sexuality, sexual variations and deviations, and sexual dysfunction and sex therapy.
Letter grade only (A-F).

## 458. Current Issues in Personality (3)

Prerequisites: Psychology major, PSY 301; PSY 356.
Current theoretical, philosophical and methodological issues in personality. Coverage may include the person-situation interaction, the role of genetics, aggression, altruism, stress/coping, and gender differences.
Letter grade only (A-F).
463. Social and Personality Development (3)

Prerequisites: Psychology major, PSY 301; PSY 361.
Development of social behavior and personality in children and adults. Coverage will include theoretical approaches and processes, as well as content areas including development of emotions, personality systems, aggression, morality, prosocial behavior, peer relations, and sex differences.
Letter grade only (A-F).

## 475./575. Clinical Interviewing (3)

Prerequisites: Psychology major, PSY 301; PSY 373.
Study and development of clinical techniques of observation and interview. Coverage includes detailed exposure to Client-Centered and Gestalt counseling methods. Emphasis on understanding theory and acquisition of basic skills.
Letter grade only (A-F).

## 477. Psychology of Addiction (3)

Prerequisites: Psychology major, PSY 301; and six upper division units in psychology.
Investigation of theory and research on psychological causes and effects of addiction, including analyses of individual differences on major demographic variables of gender, age, and ethnicity. Considerations of major approaches and methods to recovery from addictive behavior.
Letter grade only (A-F).

## 490. Advanced Topics in Psychology (3)

Prerequisites: Psychology major, PSY 301; and one 300-level course in the subject matter of the course.
Advanced study of selected topics in one basic area of psychology, e.g., cognition and learning, emotion and motivation, physiological, social, personality or developmental.
May be repeated to a maximum of 9 units with different topics.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F).
A. Applied Social Psychology

## 490H. Special Topics - Honors (3)

Prerequisites: Psychology major, PSY 301; consent of the Psychology Honors Program Advisory Committee.
Advanced study of selected topics in psychology.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 495. Psychology and the Law (3)

Prerequisites: Psychology major, PSY 301; PSY 370, and six upper division units in psychology.
Examines relationship between fields of psychology and law, including laws pertaining to psychologists and rights and ethical responsibilities of mental health providers. Topics include forensic psychology, trial consulting, and issues relating to the legal system. Letter grade only (A-F).

## 496H. Research Preparation - Honors (3)

Prerequisites: Psychology major, PSY 301; and consent of the Psychology Honors Program Advisory Committee.
Development of a senior honors thesis proposal.
Letter grade only (A-F).

## 498H. Senior Thesis - Honors (3)

Prerequisites: Psychology major, PSY 301; PSY 490H, 496H, and consent of the supervising faculty member.
Final completion of an original research project with the product being both an oral and written presentation of the research.
Letter grade only (A-F).

## 499. Independent Study (1-3)

Prerequisites: Psychology major, PSY 301; and consent of department.
Student will conduct independent laboratory or library research and write a report of the research.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## GRADUATE LEVEL

## 501./401. History of Psychology (3)

Prerequisite: Six upper division units in psychology.
Historical background and development of psychology as a science. Contributions of major individuals and systems.
Letter grade only (A-F).

## 507./407. Introduction to Family Therapy (3)

Prerequisites: PSY 200, 373, 475 or consent of the instructor.
Survey of the field of family therapy including origins of differences in family structure, historical development of family therapy theory and practice.
(Lecture/ Discussion.) Letter grade only (A-F).
511./411. Statistical Design and Analysis of Experiments (3)

Prerequisite: PSY 310 or consent of instructor.
Focuses on the logic, application, and interpretation of analysis of variance (ANOVA) models in addition to other statistical procedures. Various issues of research design and experimentation are also covered.
(Lecture 3 hours.) Letter grade only (A-F)

## 512./412. Multivariate Statistical Analysis (3)

Prerequisite: PSY 310 or consent of instructor.
Covers logic, application, and limitations of multivariate (multiple independent and dependent variables) statistics. Topics may include multivariate analysis of variance, single and multiple correlation/regression, logistic regression, factor analysis, and path analysis.
(Lecture 3 hours.) Letter grade only (A-F)

## 515. Test Construction Theory and Practice (3)

Prerequisites: PSY 314 or 315.
Consideration of problems in the construction of tests for personnel selection, educational screening, personality assessment, aptitude estimating, and measurement of academic achievement. Practice in the development of tests.
(Lecture 2 hrs, laboratory 2 hrs.) Letter grade only (A-F).
518./418. Computer Applications in Psychology (3)

Prerequisites: C/ST 200 or equivalent; PSY 310 or equivalent or consent of instructor.
Foundations of computer technology and its application to psychology. Emphasis on real-time control by digital computers in psychological research and applications.
(Lecture 2 hrs, laboratory 2 hrs.) Letter grade only (A-F).
527./427. Human Factors (3)

Prerequisites: PSY 310 and two of the following: PSY 331, 332 or 333.
Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of human factors psychologists. These skills will include systems analysis, cognitive task analysis, rapid prototyping and usability testing.
(Lecture 2 hrs, laboratory 3 hours.) Letter grade only (A-F).
533./433. Research in Cognition and Learning (3)

Prerequisites: PSY 200, 310, and 331 or 332 or 333.
Research methods in cognition, learning, and perception. Laboratory includes experiments on selected topics.
(Lecture 2 hrs, lab 3 hrs.) Letter grade only (A-F).
536./436. Psychology of Mood (3)

Prerequisites: PSY 100, 200, 310, or consent of instructor.
Analyses of normal mood states, including survey of existing literature. Topics may include the relationship of mood to important antecedents and consequences such as sleep-wake cycles, exercise, nutrition, physical health, stress, and cognition.

## 538./438. Psycholinguistics (3)

Prerequisites: Six units of linguistics or upper division psychology. Psychological and linguistic approaches to study of language. Comparison of human language with communication in lower animals. Language development, disorders, symbolism and universals.
(Lecture 3 hours.) Letter grade only (A-F).

## 539./439. Language Acquisition (3)

Prerequisite: Six units of linguistics or upper division psychology, or consent of instructor.
Theory and research on acquisition of first and subsequent languages in children and adults. Psycholinguistic perspectives on phonological, syntactic, semantic, and pragmatic aspects of language. Interacting roles of cognitive processes, individual differences, social influences, and cultural context will be stressed.
Same course as LING 539. (Seminar) Letter grade only (A-F)
541./441. Research in Physiological Psychology (3)

Prerequisites: PSY 200, 310, and 341.
Research methods in psychobiology. Includes fundamentals of neuroanatomy, surgical procedures for stimulation, lesioning and recording, pharmacological procedures used in neuropsychological research.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
544./444. Cognitive Neuroscience (3)

Prerequisites: PSY 332 and one of the following: PSY 340, 341, or 342.

Explores brain systems responsible for cognitive processes in normal humans, integrating theory from texts and current research from original sources.
Letter grade only (A-F).

## 551./451. Research in Social Psychology (3)

Prerequisites: PSY 200, 310, 351, or consent of instructor.
Research methods and problems in social psychology.
(Lecture 2 hrs, laboratory 3 hrs.) Letter grade only (A-F).
553./453. Principles of Group Dynamics (3)

Prerequisites: PSY 110, 200, 351, or consent of instructor.
Behavior in groups with attention to such factors as leadership, followership, interaction and influence including organization, management, morale, and efficiency. Problems, techniques and methods of investigation.
(Lecture/Discussion.) Letter grade only (A-F).
556./456. Research in Personality (3)

Prerequisites: PSY 100, 200, 310, 356, or consent of instructor.
Examination of common research methods, especially as they apply to particular theoretical personality paradigms.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).
575./475. Clinical Interviewing (3)

Prerequisites: PSY 100, 200, 373.
Study and development of clinical techniques of observation and the interview. Coverage will include a detailed exposure to ClientCentered and Gestalt counseling methods. Emphasis will be on understanding theory and acquisition of basic skills.
Letter grade only (A-F).
581. Organizational Psychology (3)

Prerequisites: PSY 351 or 453/553.
Analysis of organizational behavior and practices from a systems point of view. Consideration of employee motivation, power, leadership, communication, decision-making, and organizational change. Research methods for studying organizations.
Letter grade only (A-F).

## 582. Research in Industrial and Organizational Psychology (3)

Prerequisites: PSY 200 and 310.
Research methods and problems in industrial psychology. Includes direct observational, psychophysical, regression, survey, experimental, and quasi-experimental methods.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

## 585. Proseminar in Personnel Psychology (3)

Prerequisites: PSY 314 or 315.
Advanced consideration of problems and procedures in personnel psychology. Includes both differentiation and synthesis of major areas within this field.
Not open for credit to students with credit in PSY 586. Letter grade only (A-F).
589. Advanced Topics in Industrial and Organizational Psychology (1)
Prerequisite: Acceptance in to the Master of Arts - Industrial and Organizational Psychology or consent of instructor.
Exploration of selected advanced topics in Industrial/ Organizational psychology.
Not open for credit to students with credit in same topic in 590. May be repeated to a maximum of six units with different topics in the same semester. Letter grade only (A-F).

## A. Large Group Intervention

B. SPSS-Data Analysis
C. Levels of Analysis
D. Introduction to Time Series Analyses
E. SAS (Statistical Analysis System)
F. Designing Effective Teams
G. Issues in Compensation

## 590. Advanced Topics in Psychology (1-3)

Prerequisites: Consent of instructor. Topics of current interest in psychology selected for intensive development.
May be repeated to a maximum of six units with differend topics. Topics will be announced in the Schedule of Classes. Letter grade only (A-F).

## 599. Independent Study (1-3)

Prerequisite: Consent of department.
Unclassified graduate student will conduct independent laboratory or library research and write a report of the research.
May be repeated for a maximum of 6 units. Letter grade only (A-F).

## 627. Research and Simulation in Aviation (3)

Prerequisite; PSY 527 or consent of instructor.
Covers simulation methods and use in human factors investigations, focusing on simulations of National Airspace System and air traffic management principles, from both pilot and air traffic controller standpoints.
Letter grade only (A-F).

## 631. Seminar in Perception and Physiological Psychology (3)

Prerequisite: PSY 331 or 340 or 341 or 342 or consent of instructor, consent of graduate coordinator.
Critical examination of selected topics in perception, information processing and neurophysiological correlates of behavior. Student emphasis on either perception or physiological psychology. Letter grade only (A-F).

## 632. Seminar in Learning (3)

Prerequisites: PSY 333 or consent of instructor, consent of graduate coordinator.
Advanced consideration of selected topics in learning.
Letter grade only (A-F).

## 633. Seminar in Perception and Attention (3)

Prerequisites: PSY 331 or 332 or consent of instructor.
Examination of methods, theories, and experimental evidence in selected topics from the areas of sensation, perception, and attention. etter grade only (A-F).

## 634. Seminar in Cognition (3)

Prerequisites: PSY 333 or 332 or consent of instructor, consent of graduate coordinator.
Examination of method, theory and experimental evidence in selected topics from the area of cognition.
Letter grade only (A-F).

## 637. Seminar in Emotion and Motivation (3)

Prerequisites: PSY 336 or consent of instructor, consent of graduate coordinator.
Advanced consideration of selected topics in animal and human motivation and emotion.
Letter grade only (A-F).

## 651. Seminar in Social Psychology (3)

Prerequisites: PSY 351 or consent of instructor, consent of graduate coordinator.
Critical examination of interpersonal relations, social influence, group membership and influence, and intergroup relations. Letter grade only (A-F).

## 656. Seminar in Personality (3)

Prerequisites: PSY 356 or consent of instructor, consent of graduate coordinator.
Theories of personality structure, dynamics, and development. Critical examination of research deriving from different theoretical approaches.
Letter grade only (A-F).

## 661. Seminar in Developmental Psychology (3)

Prerequisites: PSY 361 or consent of instructor, consent of graduate coordinator.
Consideration of theoretical and methodological issues in life span developmental psychology. Critical examination of research on selected topics, including development of physiological function, intelligence, language, learning processes, sensory processes, perception, personality and social behavior.
Letter grade only (A-F).

## 681. Seminar in Applications of Psychology to Industry

 (3)Prerequisites: At least 12 units of graduate-level work within the MA/IO program including 511 or 512 and 582.
Psychological applications to current problems of industry.
Development of thesis proposal and pretest of thesis research techniques required.
Letter grade only (A-F).

## 683. Issues Organizational Development (3)

Prerequisites: PSY 581.
Examination of theory, research, techniques, and practices in field of organizational development, professional practice of managing change in organizations. Techniques, such as team building, systems analysis, process consultation, large-group interventions and survey feedback will be examined.
Letter grade only (A-F).

## 686. Issues in Training (3)

Prerequisites: PSY 332 or 333 , and 585.
Discusses theoretical and applied issues with the development of employee training programs. Topics include needs assessment, adult learning theory, training methods, training evaluation, and learning organizations. Experiential assignments reinforce course concepts.
Letter grade only (A-F).

## 688. Practicum in Industrial and Organizational Psychology (2) <br> Prerequisites: At least 12 units of graduate-level coursework within the MA/IO program. <br> Practice of industrial psychology or human factors in various industrial settings. Individual research and consultation with industrial or governmental organizations. <br> Letter grade only (A-F).

## 696. Research Methods (3)

Prerequisites: PSY 411/511 or 412/512, consent of graduate coordinator.
Nature and function of research in behavioral sciences.
Experimental, correlational and case study methods. Research design and analysis using multiple linear regression model, general probability models and Bayesian inference.
Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisites: Consent of graduate coordinator and department.
Theoretical and experimental problems in psychology requiring intensive analysis.
Letter grade only (A-F).
698. Thesis (1-6)

Prerequisites: Advancement to candidacy, consent of advisor. A/IO students: PSY 681 as prerequisite or corequisite.
Planning, preparation, and completion of a thesis in psychology. Must be repeated for a total of 6 units of credit. Letter grade only (A-F).

# GRADUATE CENTER FOR PUBLIC POLICY AND ADMINISTRATION <br> College of Health and Human Services 

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Public administrators today are becoming increasingly aware of the fact that government is, indeed, the people's business. They are challenged to be both effective and efficient. They believe that people tend to support what they help to create. Working with citizens, they have brought the practice of public management to its highest level without giving up the desire to constantly change and improve. The difference is that today's public servants are recognized and rewarded in personal and material ways, making the study of public policy and administration a highly desirable career option.

The Graduate Center for Public Policy and Administration offers the Master of Public Administration degree; Options in the degree program include Public Works Administration and Urban Affairs; and graduate certificate programs in Urban Executive Management, the Public Management Analyst, Employer-Employee Relations and Personnel Management, Public Sector Financial Management, and Transportation Policy and Planning. The Center's graduate program is designed with a professional emphasis and a recognized need to provide course work that will increase the student's competency in public administrative processes and analysis. The Center's curriculum also is designed to
emphasize the student's ability to apply new knowledge, skills, and leadership techniques to the solution of public problems.

Admission applications are encouraged from persons with successful government service who wish to pursue, part-time or full-time, a graduate program designed to prepare them for new opportunities in public service or to expand or extend their capacities in a present position. The Center provides education in public policy and administration to professional persons in such fields as public works, social services, public health, community development, criminal justice, educational administration, recreation administration, finance, personnel, policy analysis, urban and regional planning, systems analysis and urban administration. The Center is accredited by the National Association of Schools of Public Affairs and Administration, Commission on Peer Review and Accreditation (NASPAA, 1120 G Street, NW, Suite 730, Washington, DC 20005, phone: 202-628-8965).

A detailed summary of requirements, current course offerings and procedures for the Master of Public Administration degree program, the Options in Public Works Administration and in Urban Affairs, and the graduate certificate programs, are contained in student handbooks available from the Graduate Center for Public Policy and Administration and on its website at http://www.csulb. edu/~beachmpa.

## Program Standards and Requirements

## Admission

Students seeking admission to one of the Center's programs should have an undergraduate degree and a desire for graduate study in public administration. A student must have an undergraduate grade point average of 3.0 or better. A student whose overall grade point average is less than 3.0, but who presents acceptable evidence of professional potential shown through recent academic performance and experiential background, may be admitted by special action of the Center.

Students applying for admission to one of the Center's programs are required to submit:

1. A completed Center Application Form for the specific degree or certificate program.
2. Transcripts of all course work completed in undergraduate education.
3. Two letters of recommendation from members of the academic profession under whom the applicant has studied, or from persons in positions of administrative leadership with whom the applicant has worked.
4. A one or two page statement concerning the applicant's reasons and plans for pursuing a career in public administration.
Following admission to the University and acceptance to the Center, each student should meet with a faculty advisor. The faculty advisor will provide advice to the student on
program course requirements and elective opportunities, and counsel the student in the chosen elective area.

## Advancement to Candidacy

The following are requirements for the degree and certificate programs:

1. Satisfaction of the general University requirements for advancement to candidacy;
2. Completion of all degree or program prerequisites;
3. Approval of the candidate's program by a faculty advisor and the Director of the Graduate Center for Public Policy and Administration;
4. Completion of six units of course work at this University toward the degree or program objective;
5. A minimum GPA of 3.0 in all graduate work completed at this University, or transferred from other sources, to meet degree or program requirements.
6. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

## Transfer of Credit

Students who have completed a graduate certificate program in the Public Management Analyst, Employer-Employee Relations and Personnel Management, Public Sector Financial Management, or Transportation Policy and Planning, may transfer up to 15 units of credit earned in the certificate program to be applied to the Center's Master of Public Administration degree program. The student must apply to the Center for admission as a degree candidate.

Students who have completed the academic requirements for the Master of Public Administration degree, prior to applying for admission to a graduate certificate program in the Center, may apply up to 6 units of credit earned in the MPA program for the required or elective courses in a certificate program.

## Master of Public Administration (code PPA_MP01)

The Center offers an innovative professional graduate program of studies leading to the degree of Master of Public Administration. The 36 -unit program is designed with a professional emphasis and a recognized need to provide students with increased competency and perspective of the analytical and administrative processes of government. The MPA degree is sufficiently flexible that students may select a program of elective courses oriented toward a generalist program of study, place emphasis on a staff specialization such as personnel, or permit a focus on a specific public program field such as criminal justice administration. In all cases, a common grounding in the core areas of public policy and administration is required; beyond this, considerable freedom of choice enables students to select subjects which fit their particular backgrounds or career objectives.

## Requirements

1. A minimum of 36 course units in graduate course work, with a minimum of 21 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 555, 577, 660, 670, and 696;
3. Completion of approved internship program (PPA 585) as required course work beyond the 36-unit minimum, or waiver of the internship requirement based on professional experience;
4. Additional elective course work in elective fields to meet the 36-unit minimum;
5. Successful completion of PPA 697 Directed Research and an approved Student Learning Portfolio.

## University Courses Acceptable for the Master of Public Administration

A wide variety of graduate courses in other departments also are acceptable. Graduate course descriptions are found in the department listings in which they are offered. Consult with Center Faculty for more information.

## Option in Urban Affairs (code PPA_MP02)

The purpose of the Option in Urban Affairs in the Master of Public Administration degree is to provide students who have particular interest in urban problems and processes with the opportunity to expand their knowledge and awareness in the field. In this broadly based interdisciplinary program, students can develop an understanding of the systemic nature of the urban environment and the interrelatedness of many urban problems. The program is designed to provide urban managers with ideas and techniques for dealing with various urban situations. Emphasis is on state and local government issues and responses.

## Admission

The general standards for admission are identical to those for the Master of Public Administration degree program. An applicant must demonstrate a background of related undergraduate course work of twelve units, or significant management and/or staff experience in public administration.

## Requirements

1. A minimum of 36 course units in graduate course work, with a minimum of 24 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 555, 577, 610, 660, and 670, and 696;
3. Completion of an approved internship program (PPA 585) as required course work beyond the 36 -unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 12 units of elective course work selected from: PPA 512, 517, 522, 523, 525, 527, 535, 540, 546, 547, 548, 549, 550, 567, 571, 575, 581, 590; CRIM 512, 581, 621, 623, 624, 630, 640, 641, 650; EDAD 541, 544; EDP 520, 536; GEOG 600, 650, 666; HIST 673; POSC 640; REC 521, 571.
5. Successful completion of PPA 697 Directed Research and an approved Student Learning Portfolio.

## Option in Public Works Administration (code PPA_MP03)

This Option is designed to provide advanced knowledge to practitioners and pre-career students in the growing field of public works management. Course work prepares students in general public administration and specialized public works management activities, including appropriate technical subjects such as air and water pollution, water supply, waste disposal and management, energy, housing, and transportation.

## Admission

The general standards for admission are identical to those for the Master of Public Administration degree program. An applicant must demonstrate a background of related undergraduate course work of twelve units, or significant management and/or staff experience in public administration. For this degree option, the experiential background would be targeted to the public works and infrastructure sector.

## Requirements

1. A minimum of 36 course units in graduate course work, with a minimum of 27 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 554, 555, 577, 660, 670 and 696;
3. Completion of an approved internship program (PPA 585) as required course work beyond the 36 -unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 9 units of elective course work selected from: PPA 515, 522, 527, 535, 540, 547, 549, 550, 552, 560, 575, 590; CE 520, 565;
5. Successful completion of PPA 697 or CE 697 Directed Research and an approved Student Learning Portfolio.

## Graduate Certificate in Urban Executive Management (code PPA_CT01)

This program is designed to serve the post-graduate executive development needs of men and women aspiring to top level positions in city and county governments. The goal of this program is to provide urban executives with a comprehensive knowledge of strategic planning processes; dynamics of human relations; strategies for implementing policies; consensus building techniques; and economic and financial forces impacting on local governments

## Prerequisite

In addition to the general admission requirements, applicants for the graduate certificate in Urban Executive Management should have significant upper level management experience in Public Administration, and a minimum of 10 years of progressively responsible management experience in government.

## Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of PPA 542, 547, and 571;
3. Satisfactory completion of 3 elective courses selected from PPA 512, 525, 535, 550, 555, 560, 575, and 577.

## Graduate Certificate in Public Management Analysis (code PPA_CT02)

This program is designed for men and women who work or desire to work in budgeting, policy formulation, financial management, or program evaluation offices of government agencies. The program prepares candidates with such skills as defining a problem; conducting cost benefit analysis; utilizing basic statistical techniques; conducting behavioral/ political analysis; preparing and presenting reports; learning to blend qualitative, behavioral, and political skills necessary for success as an analyst in government.

## Prerequisite

In addition to general admission requirements, students should be employed in public service or related activities, or have a goal of public service-related activities.

## Requirements

1. A minimum of 18 course units in graduate course work, including 4 required and 2 elective courses.
2. Satisfactory completion of PPA 515, 517, 521, and 555;
3. Satisfactory completion of 2 elective courses selected from PPA 522, 523, 527, 540, and 560.

## Graduate Certificate in Public Sector Employer-Employee Relations and Personnel Management (code PPA_CT03)

This program is designed for public sector managers and those aspiring to enter public service who need the knowledge, skills, and abilities required to deal effectively with the critical area of public sector employee relations and personnel management. The primary goal is to provide the necessary training for public managers to effectively utilize human resources to their greatest potential in conjunction with the needs of the public organization.

## Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of PPA 555,575 , and 577.
3. Satisfactory completion of 3 elective courses selected from PPA 527, 570, 571 and 581.

## Graduate Certificate in Public Sector Financial Management (code PPA_CT04)

This Certificate Program is designed for public managers and others interested in obtaining an understanding of governmental financial management concepts, functions, techniques, and issues. The program is designed to familiarize students with financial management problems and the techniques available for solving them. An emphasis is placed on how to recognize, evaluate, and utilize financial information in decision-making.

Those most interested in pursuing the Certificate would likely fall into one of three categories. First, current private sector finance professionals who wish to develop an understanding of financial management functions and practices within the public sector. Second, current public sector financial managers who wish to further develop expertise in public sector financial management. Finally, inservice public sector employees who wish to start a career in government finance and who may use the courses for the Certificate as a guide for their course work towards the Master of Public Administration degree.

## Requirements

(18 units required)
PPA 555, 590T, 560, 567; ACCT 610; IS 601.
Note: Appropriate substitutes for the required courses may be allowed subject to permission of the Public Finance Specialization Faculty Advisor. Also, ACCT 610 and IS 601 have substantial prerequisites. Prospective students should refer to the University Catalog for details.

## Graduate Certificate in Transportation Policy and Planning (code PPA_CT05)

The purpose of this certificate program is to provide instruction in the skills and knowledge appropriate to professional activity in transportation policy and planning for urban transportation. Key support areas include urban planning, policy analysis, environmental policy, intergovernmental policy, personnel policy, and grants administration.

## Requirements

1. A minimum of 18 course units in graduate course work, including 2 required and 4 elective courses.
2. Satisfactory completion of PPA 522, and 550.
3. Satisfactory completion of 4 elective courses selected from PPA 535, 540, 575, 670; CE 520; ECON 690.

## Courses (PPA)

## 500. Foundations of Public Policy and Administration (3)

Concepts of the discipline; fundamentals of public organization theory, policy formulation and analysis, and administrative and management processes; management in the public interest; and ethics in government.
Letter grade only (A-F).

## 502. Administrative Leadership (3)

Prerequisites: PROF 485 or equivalent.
Concepts and techniques of personal and professional administrative leadership.
Same course as PROF 502. Letter grade only (A-F).
505. Critical Analysis of Issues and Problems in Education and the Workplace (3)
Prerequisite: Completion of other degree-required core courses. In-depth analysis of major research reports and review of historical and contemporary issues and problems. Particular attention will be given to the various research methodologies used to examine issues and problems in the field.
Same course as PROF 505. Letter grade only (A-F).

## 510. Public Administrative/Management Processes (3)

Analysis of public administrative/management processes, public finance and budgeting, public personnel systems, standards of efficiency and effectiveness in conduct of the public's business, and role and use of organizations and administrative processes to achieve public objections.
Letter grade only (A-F).

## 512. Urban Executive Management (3)

Examines problems confronting today's urban administrator and offers techniques for solving a variety of pressing problems. Subjects include managing in a local government setting issues such as public policy, planning, financial resources, personnel, and labor relations.
Letter grade only (A-F).

## 514. Municipal Law for Administrators (3)

Examination of major laws and legal issues affecting local government. Basic powers of cities including regulatory (police) powers, corporate (service) powers, taxation and eminent domain. Same course as PROF 514. Letter grade only (A-F).
515. Administrative Report Writing (3)

Preparation of written documents required of public administrators. Letter grade only (A-F).

## 517. Analytical Skills Development (3)

Designed to develop or improve the skills needed to perform analytical work in the public sector. Emphasis is on the methods of analysis and evaluation used in public service organizations. Communication of results will also be covered.
Letter grade only (A-F).

## 521. Microcomputer Management for Public Administrators (3)

Focuses on the design, development, and management of microcomputer systems and applications in public organizations. Course elements: analysis of critical concepts and issues relating to management of computer systems, and hands-on computer laboratory experience for design, and use of applications.
Letter grade only (A-F).

## 522. Automating Government Administration (3)

The use of computers to assist government management. Special emphasis on automation of services. Provides an introductory background in computers and their applications to government systems and files for non-computer specialists.
Letter grade only (A-F).
523. Urban Information Systems for Public Management (3)

Overview of significant information technologies impacting government management: World-Wide Web and G.I.S. (Geographic Information Systems.) Introduces students to the construction and use of Web pages. Includes an introduction to GIS in public organizations. Extensive use of computers.

## 524. GIS Management and Applications for Public

 Managers (3)Introduces students to the management and applications of Geographic Information Systems (GIS) in the Public Sector. Covers the requirements for designing and managing GIS applications for solving public sector problems. Hands-on use of GIS and analysis of GIS cases.
Letter grade only (A-F).

## 525. Non-Profit Management (3)

Examination of principal characteristics, scope, and functional management areas (i.e., governance, fund development, board development, volunteer and staff management, intersectoral relations; budgeting) in American nonprofit organizations, with particular attention to the important roles of nonprofits in the delivery of health and human services.
Letter grade only (A-F).
527. Productivity and Performance Measurement (3)

Identify and develop concepts of productivity and performance measurement for government executives. Links recent approaches to organizational management with productivity and performance measurement. Case studies, guest speakers, and workshops provide knowledge of substantive approaches to measuring government outcomes.
Letter grade only (A-F).

## 533. Race, Inequality and Public Policy (3)

Examines the multiple sources of ethnic, racial, gender, and class inequalities in the United States and how public policies have attempted to address these issues.
Letter grade only (A-F).

## 535. Intergovernmental Relations (3)

Presents concepts and issues of U.S. intergovernmental relations. Topics include history of the field, intergovernmental finances, state and federal legislative processes, legislative advocacy, interorganizational management, and current issues.
Same course as PROF 535. Letter grade only (A-F).

## 540. Grants Administration and Management (3)

Study of the various types of financial and technical assistance to local public and quasi-public agencies; the strategies for locating and obtaining grant programs support; and the development of effective project systems for externally funded projects. Letter grade only (A-F).

## 542. Emergency Planning and Management (3)

Planning and management processes and issues involved in largescale emergencies; the nature of natural and technological risk and emergency, with attention to public sector roles in contingency planning and response.
Same course as PROF 542. Letter grade only (A-F).
546. The Urban Crisis and the Public Administrator (3)

A survey of the history of urbanization, the literature of urban power relations and decision-making, and the dynamics of race relations in the urban environment. Extensive interface with urban agency representatives will be a major focus of this course.
Letter grade only (A-F).

## 547. Local Government Economic Development Processes (3)

A detailed discussion of the nature, goals and processes of locally based economic development programs. Definition of governmental incentives designed to maximize private investment. A thorough explanation of property-related revenues from both the public and private perspectives.
Letter grade only (A-F).

## 548. Housing Problems and the Urban Administrator (3)

Overview of housing problems in contemporary urban society. This course will increase the public administrator's awareness of the interrelationships between local government administration and housing problems, and facilitate the public administrator's ability to deal with these problems.
Letter grade only (A-F).

## 549. The Municipal Community Development Processes (3)

Overview of municipal community development processes, emphasizing the integration of planning, zoning, housing, social service, and redevelopment. Explores each function, their interrelationships, and administrative practices. Focuses on the impact of federal community development block grants on local processes.
Letter grade only (A-F).
550. Urban Transportation Policy and Planning (3)

Examines urban transportation activities and options for the future. Analyzes local, state, and federal policy; Los Angeles urban transportation development, transit proposals and new policies and activities.
Letter grade only (A-F).

## 554. Public Works Facilities and Urban Policy (3)

Provides a study of public infrastructure essential to urban communities. Special focus will be given to water, wastewater, transportation, solid waste, public facilities, and schools.
Letter grade only (A-F).

## 555. Government Budgeting and Finance (3)

Presents the major concepts and skills associated with budget preparation for all levels of government. Topics include: budget processes and formats, basic principles of government accounting, revenue, and capital budgeting.
Same course as PROF 555. Letter grade only (A-F).
560. Public Financial Management (3)

Focuses on financial planning, implementation and management control, financial reporting, and financial analysis used in public service organizations.
Letter grade only (A-F).

## 567. Basic Governmental (Fund) Accounting (3)

Provides an introduction to the unique characteristics of governmental accounting. Fundamental aspects of recording and reporting of financial transactions in public service organizations are covered. The basics of governmental auditing and financial condition analysis are also covered.
Letter grade only (A-F).
570. Negotiating Dynamics: Strategies and Skills (3) Examination of negotiating strategies and skills based on tested use of power and psychological principles in negotiations. Different strategies and skills examined for negotiating under varying levels of cooperation and conflict.
Letter grade only (A-F).
571. Leadership Skills and Strategies in the Public Sector (3)
Leaders in urban governments, community based and nonprofit organizations are challenged to move their bureaucracies toward solutions to complex problems. Examines administrative leadership, current approaches to organizational excellence and their applicability in a variety of administrative settings.

## 575. Public Sector Employer-Employee Relations (3)

Analysis of prevailing practice and techniques of collective bargaining and its continuing impact on the economic, political, and organization structure in the public sector.
Letter grade only (A-F).

## 577. Public Sector Human Resources Management (3)

The historical development of the civil service/merit system; laws which affect the operations of a personnel system; analysis of the various components of a personnel system; impact of labor negotiations; role of the personnel system as a change agent.
Same course as PROF 577. Letter grade only (A-F).

## 581. Government/Community Relations (3)

Investigation of relationship between governments and community based organizations, with particular attention to strategies for diagnosing problems and opportunities and prescribing courses of action in areas of public policy where governments and nonprofits converge.
Letter grade only (A-F).

## 582. Citizen Advocacy and Public Policy Making (3)

In-depth analysis of citizen involvement and how it impacts policy formulation and public administration. Involves classroom input from community leaders, action groups, legislators, public administrators, with interaction by the student.
Letter grade only (A-F).
585. Public Policy and Administration Internship (3-12)

Prerequisite: Consent of the instructor.
Provides exposure to and understanding of the governmental environment. Students seeking the MPA degree who do not have managerial experience in government are required to participate in the internship program.
May be repeated to a maximum of 12 units. Academic credit earned for the internship program is beyond the 36 units required for the MPA degree. Letter grade only (A-F).

## 590. Special Topics in Public Policy and Administration

 (3)An investigation of a special problem as defined by the instructor that is of current interest to the field of public policy and administration.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## S. Small-Scale Survey Research for Public Administrators <br> T. State and Local Public Finance

## 597. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study in public policy and administration.
Letter grade only (A-F).

## 610. Seminar in Urban Affairs (3)

An interdisciplinary course which will give students an opportunity to develop expanded awareness of the interrelationships between various urban problems in the urban systemic environment.
Letter grade only (A-F).

## 650. Seminar on Issues in Contemporary Public Administration (3)

Survey of contemporary issues and topics critical to effective public administration, including social and political context (e.g., increasing diversity of public demands on public agencies, increasingly complex intergovernmental networks), responsibilities and obligations of public servants, and other selected issues.
Letter grade only (A-F).
651. Graduate Seminar (3)

Prerequisite: Enrollment in MS or MPA degree program.
Study of selected topics in occupational education, including important legislation, industrial innovations, technical change, and contemporary problems.
Topics will be announced in Schedule of Classes. May be repeated to a maximum of 6 units. Same course as PROF 650. Letter grade only (A-F).
660. Seminar in Organization Theory and Behavior (3)

Examination of theories of organizations and behavior of members therein. Among the subtopics: generalist management, bureaucracy, organization structure and design, systems theory, motivation, leadership, decision-making, group and team dynamics, power and conflict, culture, organization change and development.
Letter grade only (A-F).
670. Policy Issue Analysis (3)

Introduces theories and approaches to policy analysis. The core of the course follows the policy analysis cycle and includes: problem recognition, problem definition, development of alternative solutions, analysis of alternatives, selection of policy options, policy implementation and evaluation.
Letter grade only (A-F)
696. Research Methods in Public Administration (3)

Covers the techniques of public sector research. Topics include research design, survey research, and statistical analysis. Note: It is suggested that students take PPA 696 early in their MPA program. Letter grade only (A-F).

## 697. Directed Research (3)

Prerequisites: Advancement to candidacy, completion of required MPA courses, consent of instructor.
Required capstone project. Individual research of a public issue. Supervision of a full-time faculty member required. Three (3) units required for graduation.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

# RECREATION AND LEISURE STUDIES <br> College of Health and Human Services 

Department Chair<br>Maridith Janssen<br>Department Office<br>Health and Human Services (HHS) 2-118<br>Telephone<br>(562) 985-4071<br>Faculty<br>Professors<br>Michael A. Blazey, Marilyn A. Jensen (Emerita)<br>Associate Professor<br>Katherine James, Maridith Janssen<br>Assistant Professors<br>Corey W. Johnson, Susan Mathieu<br>Administrative Support Coordinator<br>Sharon Cruz<br>Graduate Advisor<br>Katherine James

The experience of leisure is a basic facet of life. It is an elemental experience, essential to the total well-being of every person; it is a reflection and expression of the cultural values of a society; it is an important treatment modality. Leisure and recreation services are also essential for healthy communities in terms of social climate, environmental quality, and economic stability. The provision of recreation services is one of the largest industries in the world, whether measured in dollars spent, persons served, hours of time devoted, or resources used. The study of leisure and recreation is a broad discipline, combining aspects of diverse fields of study and professional practice.

The Department of Recreation and Leisure Studies exists to promote a broader and deeper understanding of the role of leisure and recreation in the lives of all people, and to enhance the quality of experiences available to each person. This purpose is expressed in the four-fold mission of the Department of Recreation and Leisure Studies: (1) to offer a curriculum which leads the student to an increased understanding of the leisure phenomena; (2) to conduct basic research which contributes to the general body of knowledge; (3) to serve the community by conducting applied research and providing consultation and training to practitioners; and (4) to serve society by providing professional practitioners who are skilled, dedicated, and ethical stewards of the profession.

The Department is accredited by the Accreditation Council of the National Recreation and Park Association and American Association for Leisure and Recreation (National Recreation and Park Association, Council on

Accreditation, 22377 Belmont Ridge Road, Ashburn, VA 20148, phone: 703-858-0784).

Students desiring information on undergraduate or graduate degrees or certificate programs in Therapeutic Recreation, Administration of Campus Recreation and Student Service Programs, Management of Nonprofit and Volunteer Services, Administration of Outdoor Recreation Resources, and Administration of Travel and Tourism should contact the department office for referral to one of the faculty advisors.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Recreation (code REC_BA01) (120 units)

## Academic Program

The curriculum is designed to prepare men and women for positions of supervision and administration in public recreation and parks, therapeutic recreation, outdoor education, voluntary youth and adult services, camp administration, special event planning and management, travel and tourism, commercial recreation, and armed forces recreation.

The curriculum includes courses selected to provide an understanding of human development, service management, and a variety of specialty areas within leisure service professions.

## Departmental Policies

Each major student must maintain a cumulative 2.0 GPA on all units attempted and achieve a "C" or better in each course of the Recreation major to progress in the sequence of study. Students earning less than a "C" grade in a course required in the major must repeat that course.

Students wishing to substitute courses or deviate in any way from the Department requirements must submit a letter of request to the Department faculty. No more than six units of Recreation-prefix courses may be taken by contract. The Internship is "Letter grade only (A-F)." The Internship is taken the last semester before graduation. No other courses may be taken concurrently with the Internship.

## Requirements

Lower Division: REC 141, 225
Upper Division: REC 325, 341, 351, 421, 423, 425, 427, 431, 480, 498.

Additional Courses: Each major student is required to complete courses in the following groups: REC 100 or 300; Choose one from the following: HDEV 307I, 357I, or PSY 370; Choose 15 units from the following: REC 215, 321, 322, 324, 337, 340I, 371, 407, 410, 428, 430, 433, 451, 452, 454, 458, 462, 468, 469, 473, 490, 499. Choose 3 units form collaborative fields with advisor approval, such as CAFF, CDFS, CRIM, EDP, FCS, FCSE, FMD, FSCI, HFHM, KIN, NUTR, SW.

## Minor In Recreation (code REC_UM01)

A minimum of 21 units approved by the departmental minor advisor which must include: REC 141, 225, 321, 340I, 351 and two of the following: REC $220,322,324,337,371$, $428,430,431,433,462,473$, or 490 with consent of the advisor.

## Certificate Programs

The certificate programs offered by the Department of Recreation and Leisure Studies are available to both undergraduate and graduate students, as well as students who already possess a baccalaureate degree and are enrolling in a certificate program, unless otherwise noted. Students pursuing an approved degree at CSULB may complete the certificate programs concurrently with their degree or subsequent to their degree by enrolling as a certificate student. Courses taken to meet the requirements of a certificate may also be used, where appropriate, to meet the General Education requirements or the degree requirements of cooperating departments. Extension and/or transfer credit may comprise no more than one-fourth of the course work used to meet baccalaureate certificate requirements. Students wishing to pursue a certificate should contact the department to schedule a meeting with the certificate advisor.

## Certificate in Therapeutic Recreation (code REC_CT01)

Therapeutic recreation has been identified as one of the fastest growing fields of employment. Recreational therapists work in clinical and community settings using recreation as a tool to assist post-injury rehabilitation and to improve quality of life for people with disabilities. State and National Certification in therapeutic recreation is often required for employment in this field; the curriculum of this certificate program prepares students for the California Board of Recreation and Park Certification exam and for the National Council for Therapeutic Recreation Certification exam. A baccalaureate degree, which may be awarded concurrently, is required for completion of this certificate program.

Core requirements: REC 325, 351, 341, 451, 452, 454, 458, and 498.

Additional courses: 18 to 19 units, which must be taken with approval from the certificate advisor. This includes an anatomy/physiology course (3-4 units); abnormal psychology (3 units); a human growth and development across the lifespan course ( 3 units); and upper division support courses ( 9 units) from any of the following areas: sociology, psychology, educational psychology, health science, adapted physical education, anthropology, biology, communication studies, family and consumer sciences, gerontology, human development, kinesiology/physical education, occupational studies, social work, and special education

## Certificate in Administration of Campus Recreation and Student Service Programs (code REC_CT05)

Campus Recreation and Student Services is a growing field in elementary, secondary and higher education, as it relates to the co-curricular programs offered in support of the educational program, both in public and private institutions. The Certificate enhances professional development in Student Services such as Student Activities, Student

Leadership Development, Residential Life, Student Community Service Volunteer Programs, and Intramurals and Recreational Sports; and Campus Services such as Conferences, Scheduling, Event Planning, and Alumni Relations. For those looking to be Certified Recreation Sports Specialist through NIRSA the courses will prepare them for the certification examination.

Twenty-four (24) units of core requirements including: REC 321, 322, 324, 325, 421, 427, 485; and one (3 unit) evaluation course: REC 341 or equivalent. The remaining six (6) units are electives which must be taken with approval of the advisor of the certificate program. These may include REC, KIN, HDEV, or HRM courses.

## Certificate in Management of Nonprofit and Volunteer Services (code REC_CT02)

Nonprofit organizations require trained professionals to meet the demanding need of managing effective organizations and programs. This certificate program prepares students for employment as managers of nonprofit organizations and volunteer services.

Core requirements: REC 325, 421, 425, 427/527, 428/528, 498.

Additional courses: 6 units of elective courses addressing youth development, communication skills, marketing, evaluation, or working with diverse populations which must be taken with approval of the advisor of the certificate program.

## Certificate in Administration of Outdoor Recreation Resources (code REC_CT03)

Outdoor recreation includes both the provision of recreation programs in the outdoors and the management of the parks and public lands that serve as the settings for these recreation experiences. Recreation program management and land management are distinct fields that must work cooperatively. This certificate program prepares students for careers in these interrelated fields. The curriculum includes courses selected to provide an understanding of outdoor recreation behavior, outdoor education, resource management policies, and an introductory understanding of natural science.

Core Requirements: REC 427, 430, 431; REC 337 or SCED 401; REC 433, 485, or 499.

Additional courses: 9 units of elective courses from biology, geology, or geography which must be taken with approval of the advisor of the certificate program.

## Certificate in Administration of Travel and Tourism (code REC_CT04)

Travel and tourism is a very large and growing field in which there are usually many opportunities for well-trained individuals. This certificate program provides instruction in the history and theoretical bases of tourism, including its economics, psychology, and sociology as well as the political and legal aspects. The fundamentals of business, food and food service technology, the performing arts, and resource management are themes throughout the program.

Core requirements: REC 462, 468; REC 485 or 498; FCS 270, GEOG 352.

Additional courses: 6 units of upper division courses listed in the University Catalog under the Regional category in the Department of Geography or 6 units of a foreign language; plus 3 additional upper division units selected in consultation with the advisor of the certificate program.

## GRADUATE PROGRAMS

## Master of Science in Recreation Administration (code REC_MS01)

The Department of Recreation and Leisure Studies offers a program of graduate studies leading to the Master of Science degree in Recreation Administration. The program helps prepare professional personnel who are competent managers of private and public agencies and programs, who can conduct research and evaluation of recreation services, and who can contribute to the development of a professional philosophy of leisure. Unusually fine opportunities exist in Long Beach and Southern California for interaction with recreation agencies of all kinds.

## Admission

Students seeking admission to the Department of Recreation and Leisure Studies Graduate Program should have an undergraduate degree and a desire for graduate study. Applicants must apply for admission to the Recreation and Leisure Studies Department in addition to being admitted by the Office of Admissions and Records.

The following items must be completed for admission:

1. Applicants must meet the criteria for acceptance by the University as a graduate student as outlined in the CSULB Catalog;
2. Every applicant (new or continuing) must apply to the Office of Admissions and Records to obtain admission to the University with graduate standing. Applications are available on line (http://www.csumentor.edu/);
3. Every applicant must also apply to the Department of Recreation and Leisure Studies, by sending the following to the Graduate Coordinator in the Department of Recreation and Leisure Studies:
A. A copy of the graduate application sent to the Office of Admissions and Record;
B. Official transcripts of all undergraduate course work;
C. A copy of the applicant's current resume and a statement of professional goals;
D. Three letters of recommendation from persons able to testify to the applicant's academic ability.
Admitted graduate students must contact the Department of Recreation and Leisure Studies Graduate Coordinator for advisement early in their first semester of enrollment in order to develop an approved program of study.

## Prerequisites

Graduate students must complete the following prerequisites before advancing to candidacy:

1. A bachelor's degree with a major in recreation; or,
2. A bachelor's degree with a minimum of 24 units of upper division courses comparable to those required in the undergraduate recreation major at this University. (Students deficient in undergraduate preparation must take courses approved by the department Graduate Coordinator to remove these deficiencies.)
3. Any deficiencies will be determined by the department graduate coordinator review of the student's transcript records, and consultation with the student's faculty advisor and the student.

## Advancement to Candidacy

The following are required for student to advance to candidacy:

1. Enrollment in the semester or summer session in which advancement takes place;
2. Completion of the general University requirements for advancement to candidacy, as specified in this bulletin.
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Satisfactory completion of REC $521,571,591,595,696$ with a minimum grade of " $B$ " in each of the courses.
5. After consultation with the student's graduate advisor, determination of whether the student will complete the thesis option or project option.
6. Approval of the student's graduate program by the Department Graduate Advisor and Associate Dean for the College of Health and Human Services.

## Requirements

The core requirements for a masters of science in recreation administration are REC 521, 571, 591, 595, and 696. In addition to the core classes, students are required to complete elective units and thesis or project units. The thesis option requires one unit of REC 599 and four units of REC 698, plus 12 units of electives. The project option requires three units of REC 698 plus 20 units of electives. Elective courses are to be selected after consultation with the graduate advisor. A maximum of 6 units may be taken from 300 or 400-level courses in Recreation designated with a * in CSULB Catalog. Undergraduate courses that are not designed with a * may not be applied toward the master's degree. Up to six units of graduate work may be transferred from another accredited university or another department in CSULB. Transfer credit must be a " $B$ " or better. All students must earn a grade of "A" or "B" for each required course. Students may not have more than 6 units of "C" grades apply toward the master's degree. Advancement to candidacy is necessary before REC 697 or 698 can be taken.

## Thesis or Project

The thesis or project is a supervised experience in the application of theory and analytical tools to an issue in recreation and leisure services.

The thesis should prepare students for further graduate work or research in the field. The project should provide an experience that is directly applicable to an occupation in recreation and leisure services. The thesis is a written product of the systematic study of a significant problem. It clearly identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. The thesis is supervised by a committee of three, including the Thesis Chair, who must be a full-time tenure-track or tenured faculty member in the Recreation and Leisure Studies Department, and two other faculty members.

The project is a significant undertaking appropriate to the professional field. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written report that includes
the project's significance, a review of the literature, objectives, methodology, and a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. The coursework is supervised by a committee of three, including the Project Chair, who must be a full-time tenure-track or tenured faculty member in the Recreation and Leisure Studies Department, and two other faculty members.

## Graduate Certificate in Leisure Counseling (code REC_CT06)

Leisure and recreation experiences add quality and enjoyment to life. When individuals experience significant changes in their lives, often through retirement or disabling injuries, they may need counseling to identify and develop leisure skills appropriate to their new life situations. This certificate program prepares students to use counseling techniques to enhance quality of life through leisure.

Admission/Prerequisite: Persons holding a bachelor's or master's degree in Recreation or Therapeutic Recreation or a related allied health field (e.g. Occupational Therapy, Music Therapy, Gerontology, Psychology, Adapted Physical Education, Counseling); two years verified experience in counseling approved by the program advisor.

Core requirements: REC 454/554, 503, 590; EDP 532, 533.
Additional courses: 3 units which must be taken with approval of the advisor of the certificate program.

## Courses (REC)

## LOWER DIVISION

## 100./300. Orientation to the Recreation Major (3)

Orientation to the professional roles in the field of leisure services; the philosophy, academic requirements, standards, documentation, procedures of followed in the Department of Recreation and Leisure Studies; and computer applications required of all majors.
Letter grade only (A-F). (Discussion, 3 hours) Not open to students with credit in REC 300.

## 141. Introduction to Leisure Services (3)

Prerequisite/Corequisite: One GE Foundation course.
Survey of public, private and non-profit agencies engaged in leisure services. Examination of populations served. Organizing principles of the recreation and leisure services profession.
Not open to students who have completed REC 241. (CAN REC 2)

## 215. Management of Outdoor Field Trips (1)

Field experiences in unique outdoor recreation programs. Include splanning, logistics and leadership techniques involved in field trip organization.
(Activity 2 hours.)
220. Universality of Play (3)

Prerequisites: Completion of GE Foundation requirements.
Exploration of ethnic origins of play from international perspective. Influence of play on creativity, drive and self image of society.
(Theory and practicum)

## 225. Programming Recreation Activities (3)

Methods and materials used in planning and leading organized recreation programs in public and private agencies. Analysis of interpersonal and group skills necessary for effective leadership of recreation activities. Special emphasis on supervised programming field experiences.
Letter grade only (A-F).

## UPPER DIVISION

## 300./100. Orientation to the Recreation Major (3)

Orientation to the professional roles in the field of leisure services; the philosophy, academic requirements, standards, documentation, procedures of followed in the Department of Recreation and Leisure Studies; and computer applications required of all majors.
Letter grade only (A-F). (Discussion, 3 hours) Not open to students with credit in REC 100.

## 321. Leadership in Recreation and Leisure Studies (3)

Theory and application of leadership as it pertains to leisure service agencies. In depth analysis of interaction between leadership styles and group dynamics. Facilitation techniques necessary for effective group leadership.

## 322. Recreational Sports Supervision (3)

Organization and supervision of recreational sports for community-wide participation.
(Lecture 2 hours, Activity 2 hours.)

## 324. Campus Recreation Services (3)

Prerequisites: Junior Standing.
Principles and practices in provision of recreation services on college, secondary, and elementary school campuses

## 325. Advanced Program and Event Management (3)

Prerequisites: REC 100 or 300 ; 141, 225, or consent of instructor.
Advanced management of recreation and leisure service programs with special emphasis on event planning and promotion. Includes interpretations of needs assessments and market analysis; analysis and selection of prospective client bases; program design, marketing, promotion, implementation and evaluation.
Letter grade only (A-F).
337. Environmental and Cultural Interpretation (3)

Principles and practices of environmental and cultural interpretation of outdoor recreation resources, including tours, brochures, slide shows and exhibits.
(Discussion, 3 hours)

## 340I. Leisure in Contemporary Society (3)

Prerquisites: Completion of G.E. Foundations requirements; one or more explorations courses; upper division standing.
Enhancing the understanding of leisure in contemporary society by examining beliefs, values, and social structures of one's own leisure and comparing and contrasting them with individual and social influences such as race/ethnicity, gender, sexuality, age, economic status, ability and religion.

## 341. Evaluation and Research in Leisure Services (3)

Prerequisites: REC 100 or 300, REC 141, 225, or consent of instructor. Foundations of current methods and practices of evaluation and research about leisure and in leisure services. Includes the critical need for evaluation and research in leisure services; research and evaluation concepts, types, and designs; sampling; and information/data collection, analysis, interpretation, and presentation.
Letter grade only (A-F).

## 351. Foundations of Therapeutic Recreation (3)

Prerequisites: REC 100 or 300, REC 141, 225, or consent of instructor.
Philosophical and historical foundations of therapeutic recreation and principles of planning, implementing and evaluating leisure services for individuals with disabilities.
(Lecture/Activity 3 hours.)
371. Human Services Programming in Urban Areas (3)

Prerequisites: Completion of the GE Foundation requirements.
Exploration of the community diversity, social issues, and community resources of urban areas in relationship to the concerns of recreation and human service needs. Examination of planning, development, and agency collaborations required to insure recreation services development meets community needs.

## *407. Starting a Recreation Business (1)

Examines the basic legal, financial, and practical concerns related to starting a recreation business in California.

## 410. Designing Effective Workshops and Conferences

 (1)Analyzes elements of workshop and conference design, and provide the student with the knowledge and skills necessary to develop effective, participative group meetings.
*421. Supervisory and Administrative Practices (3)
Prerequisite: REC 100 or 300 ; 141, 225, or consent of instructor.
Concepts and techniques of supervision and administration in recreation agencies; emphasis on recruitment, assignment, evaluation and in-service training of recreation personnel.
*423. Facility Design and Operations (3)
Prerequisites: REC 325 or consent of instructor.
Theories and practical experience in the design, development, operation, maintenance and administration of various recreational facilities.
Letter grade only (A-F).
*425. Financing Leisure Services (3)
Prerequisites: REC 325 or consent of instructor.
Financing and budgeting in public and private sector leisure service agencies; management by objectives as related to fiscal elements.

## 427./527. Legal Aspects of Leisure Services (3)

Prerequisites: Upper Division Standing.
Political, policy making, and legal aspects underlying the establishment, operation, and termination of public and private leisure services.
Letter grade only (A-F). (Discussion, 3 hours.)
428./528. Principles of Nonprofit/Volunteer Management (3)

Survey of the principles of nonprofit and volunteer services management. The philosophical, historical and social context of the volunteer movement; funding, governance, organization and management of nonprofit organizations and volunteer services; trends and issues; professional development and employment.

## *430. Recreation in the Ocean Environment (3)

Study of the skills and techniques of administration of an oceanoriented recreational resource, including management and trip planning. Will be supplemented with a week long field trip to Santa Barbara Island.
Course fee may be required.

## *431. Recreation Resource Management (3)

Prerequisites: REC 100 or 300; 141, or consent of instructor.
Review of the techniques of recreation resource management; the role of citizens, government and private agencies in acquisition and development of these resources; development of resource management policies.

## *433. Management of Organized Camps (3)

Management of organized camps, with particular emphasis on the role and responsibility of the on-site director; practical experience in all phases of camping. Topics covered include camp philosophies, job responsibilities and staffing, staff dynamics, campers' characteristics and needs, camp program development, and camp facility management.
*451. Management of Therapeutic Recreation Services (3)

Prerequisites: REC 351, 452 or consent of instructor.
Comprehensive therapeutic recreation program development, operation, and management. Advanced principles, issues, and trends in therapeutic recreation.
Letter grade only (A-F).

## *452. Therapeutic Recreation Treatment/Program Planning

 (3)Prerequisites: REC 351 or consent of instructor.
Development of individual treatment/program plans in therapeutic recreation. Includes assessment of leisure and social functioning, problem identification, development of measurable objectives, determination of program content and methods, documentation, and evaluation of the client's progress.
(Lecture 2 hours, Activity 1 hour.)
454./554. Leisure Counseling (3)

Prerequisites: REC 351, 452, or consent of the instructor.
Current practices and procedures in leisure counseling. Includes techniques of leisure needs assessment, leisure counseling and leisure education methods and techniques, and leisure counseling and leisure education content.

## 458./558. Therapeutic Recreation: Facilitating Leisure and

 Wellness (3)Prerequisites: REC 100 or $300 ; 141,225$, or consent of the instructor.
Overview of role of leisure within wellness and wellness programs as it relates to in therapeutic recreation. Examination of various therapeutic recreation facilitation techniques as a major component of promotion of wellness promotion programs. Includes assessment of leisure functioning; and development and implementation of therapeutic recreation programs and services.
Letter grade only (A-F).
*462. Travel, Tourism, and Resort Recreation Management (3)

Prerequisites: REC 325 or consent of instructor.
Current procedures and processes in managing travel, tourism and resort recreation organizations. Discussion includes the organization and management of human resources in the marketing of travel, tourism and resort recreation enterprises.

## *468. Tourism Planning and Development (3)

Prerequisites: REC 462 or consent of instructor.
Analysis of elements which are included in a community development plans. Assessment of the touristic potential of a region or site, enabling legislation, organization, and administration of a tourism development plans, identification of sources of resistance and support.
469./569. Disability, Culture and Society: Issues and Intervention (3)
Prerequisite: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as GERN 469./569 and SW 469./569. Letter grade only (A-F).

## 473./573. Aging and Leisure (3)

Prerequisites: REC 325 or consent of instructor.
Theories, concepts and influences on satisfaction with retirement focusing on leisure-related issues. Overview of the continuum of services, emphasizing leisure services available to older people.

## 480. Philosophy of Recreation and Leisure (3)

Prerequisites: REC 325, 341, one of the following: REC 421, 425, 427. Open to recreation majors only.
Exploration of the philosophical and ethical basis for current practices in recreation and leisure service organizations.
(Discussion, 3 hours.)
483. Professionalism in Leisure Services (1)

Corequisites: REC 498.
Synthesis of experience gained from internship placement with theoretical and applied concepts learned in the academic setting. Preparation for the transition from academic to professional life. Letter grade only (A-F). (Sem, 1 hr.)

## 485. Field Work (3)

Prerequisites: Consent of the instructor.
Supervised experience in recreation leadership, supervision or administration approved by faculty advisor or consent of the instructor.
Credit/No credit grading only. May be repeated to a maximum of 6 units in different semesters.

## *490. Special Studies in Recreation (1-3)

Identification and critical analysis of current problems in selected areas of recreation.
Topics to be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics in different semesters.

## *498. Internship in Leisure Services (6-9)

Prerequisites: Completion of all major requirements; 1000 hours of verified paid or volunteer leadership experience approved by faculty advisor, or 500 hours of experience and fluency in both English and a second language consistent with the CSULB Language Proficiency Requirements; and consent of the internship coordinator.
This internship will involve 400 hours of supervised experience in an approved leisure service agency jointly supervised by university and agency personnel.
Letter grade only (A-F). (Field work)

## 499. Independent Study (1-3)

Prerequisites: Consent of dept. and approval by department chairperson.
Individual projects in areas of special interest areas. Independent study under the direct supervision of a faculty member.
May be repeated to a maximum of 6 units in different semesters with consent of instructor.

## GRADUATE LEVEL

## 521. Recreation Administration (3)

Organizational theory; planning, staffing and budgeting of recreation programs in governmental and voluntary agencies.
Letter grade only (A-F).

## 527./427. Legal Aspects of Leisure Services (3)

Prerequisites: Upper Division Standing.
Political, policy making, and legal aspects underlying the establishment, operation, and termination of public and private leisure services.
Letter grade only (A-F). (Discussion, 3 hours.)
528./428. Principles of Nonprofit/Volunteer Management (3)

Survey of the principles of nonprofit and volunteer services management. The philosophical, historical and social context of the volunteer movement; funding, governance, organization and management of nonprofit organizations and volunteer services; trends and issues; professional development and employment.

## 554./454. Leisure Counseling (3)

Prerequisites: REC 351, 452, or consent of the instructor.
Current practices and procedures in leisure counseling. Includes techniques of leisure needs assessment, leisure counseling and leisure education methods and techniques, and leisure counseling and leisure education content.

## 558./458 Therapeutic Recreation: Facilitating Leisure and

 Wellness (3)Prerequisites: REC 100 or 300 ; 141, 225, or consent of the instructor.

Overview of the role of leisure within wellness and wellness programs as it relates to in therapeutic recreation. Examination of various therapeutic recreation facilitation techniques as a
major component of promotion of wellness promotion programs. Includes assessment of leisure functioning; and development and implementation of therapeutic recreation programs and services.
Letter grade only (A-F).

## 569./469. Disability, Culture and Society: Issues and Intervention (3)

Prerequisite: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as GERN 569./469 and SW 569./469. Letter grade only (A-F).

## 571. Philosophy, Issues and Trends (3)

Exploration of the current philosophy, trends and issues in the field of recreation.
Letter grade only (A-F).
573./473. Aging and Leisure (3)

Prerequisites: REC 325 or consent of instructor.
Theories, concepts and influences on satisfaction with retirement focusing on leisure-related issues. Overview of the continuum of services, emphasizing leisure services available to older people.

## 590. Special Topics in Recreation (1-3)

Prerequisite: Consent of instructor.
In-depth investigation of topics of current interest and concern to students experienced in recreation.
May be repeated to a maximum of 6 units with different topics.
Topics to be announced in the Schedule of Classes. Letter grade only (A-F). May be repeated to a maximum of 3 units with different topics in different semester

## 591. Research Proposal Writing (1)

Prerequisite: REC 696.
Concerned with variations in research design and methodology. Completion of a thesis proposal is a requirement.
Letter grade only (A-F).

## 595. Management Studies (3)

Administrative studies and surveys; procedures for conducting appraisals of recreation programs and facilities.
Letter grade only (A-F).
599. Independent Study (1-3)

Prerequisites: Consent of Graduate Advisor and Department Chair. Independent research under the supervision of a Recreation and Leisure Faculty member.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
696. Research Methodology (3)

Research methodology in recreation. To be completed within the first 12 units of the 500/600 series of courses.
Letter grade only (A-F).
697. Directed Studies (1-3)

Prerequisites: REC 698, advancement to candidacy. Independent investigation of field research problems in recreation. Letter grade only (A-F). May be repeated to a maximum of 3 units in different semesters
698. Thesis (1-4)

Prerequisites: REC 591, 696, advancement to candidacy.
Planning, preparation and completion of an approved thesis.
May be repeated to a maximum of 4 units in different semesters.

Department Chair<br>Carlos R. Piar<br>Department Office<br>McIntosh Humanities Building (MHB), Room 619<br>Telephone<br>(562) 985-5341<br>FAX<br>(562) 985-5540<br>email<br>religious-studies@csulb.edu<br>Website<br>www.csulb.edu/depts/relstud<br>Faculty<br>Professors<br>Anthony Battaglia (Emeritus), Jeffrey L. Broughton, Robert H. Eisenman (Emeritus), F. Stanley Jones, Peter M. Lowentrout, Carlos R. Piar<br>Associate Professors<br>Edward J. Hughes

Assistant Professors
Yechiel Shalom Goldberg, Diana Steigerwald, Jon R. Stone

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Religious Studies (code R/STBA01) (120 units)

The department of Religious Studies educates students in the scholarly interpretation of religion. Students develop a critical and appreciative understanding of the complexity of religions and their importance in human life; the academic study of religion thus makes an invaluable contribution to historical and cultural literacy. The elements and forms of religion - texts and institutions, stories, moral values, symbols, ritual, doctrine, etc. - are studied in their cultural and historical contexts with sensitivity and intellectual precision. Students are introduced to the major religious traditions and to religion in the modern world. Religious Studies is interdisciplinary, relating world religions and the religious dimension of human life to both the humanities and the social sciences. Students interested in a degree program should apply to the department chair.

## Requirements

A minimum of 36 units is required, distributed in the following way:

Core Courses: R/ST 401 and 6 units from the following: R/ST 100, R/ST 102, and R/ST 103.

Area Courses: 21 units selected from at least two of the following three categories.

1. Western Religions: R/ST 210, 230, 311, 312I, 314, 315, 317, 322, 331I, 337I, 338I, 339, 375, 376I, 383I, 459, 460, 467I, 471I, 472I, 490*, 499*
2. Eastern Religions: R/ST 341I, 343, 344, 351, 352, 3531, 442, 448, 490*, 499*
3. Religion in the Contemporary World: R/ST 202, 240, 301, 302I, 308, 362I, 383I, 391I, 425I, 472I, 482I, 485, 490*, 499*
*When the subject matter of a special topics or directed studies course is applicable, the course may be used.
Electives: 6 units selected from religious studies courses, including language courses (Aramaic, Hebrew, or Sanskrit), or AIS 335, CWL 342, Phil 306, 307, 330

## Minor in Religious Studies (code R/STUM01)

The Minor in Religious Studies is available to any nonReligious Studies major.

A minimum of 21 units in religious studies courses or courses from other departments approved by the Religious Studies Department.

Lower Division: A minimum of six units selected from R/ST 100, 102, 103, 202, 210, or the equivalent.

Upper Division: A minimum of 15 units including three units from each of the following groups: (a) Western Religious Thought: R/ST 311, 312I, 314, 315, 322, 331I, 375, 376I, 425I, 471I, 472I; (b) Asian Religious Thought: R/ST 341I, 343, 344, 351, 3531. Remaining units are to be selected from Religious Studies courses and the following electives:
AIS 335, B/ST 353, CWL 342, HIST 333, PHIL 330.

## Certificate in Religious Studies (code R/STCT01)

## Requirements

A bachelor's degree with a major in a traditional discipline.
*A minimum of 30 units in religious studies or courses offered in other departments approved by the Religious Studies Department.

Lower Division: A minimum of nine units selected from R/ST 100, 102, 103, 202 or 210.

Upper Division: A minimum of 21 units including one course from each of the following: (a) Biblical Studies: R/ST 311, 312I, 322, 375, 376I; (b) Western Religious Thought: R/ST 314, 315, 331I, 4711, 472I, 485; (c) Asian Religious Thought: R/ST 3411, 343, 344, 351, 3531. A minimum of twelve upper division units from the preceding courses and the following electives: R/ST 302I, 353I, 362I, 383I, 482I, 490, 499; AIS 335; ASAM 380; B/ST 353; CWL 342; HIST 333; PHIL 330.

## GRADUATE PROGRAMS

## Master of Arts in Religious Studies (code R/STMA01)

## Admission

The primary criteria for admission are the same as those for University graduate admission. In addition, the applicant must have a Bachelor's degree in Religious Studies, or its equivalent, and have achieved a 3.0 GPA in the last 60 semester units attempted. Two letters of recommendation from instructors in the undergraduate major should be included.

## Program Requirements

1. Minimum total units: 30 units of upper division or graduate study, at least 24 of which must be in Religious Studies. The remaining six may be in Religious Studies or another field of study related to Religious Studies and/or the candidate's educational interests. Each student's program must include a minimum of 18 units of graduate courses, at least six of which must be in the 600 series (not including R/ST 697 and 698). All students must satisfactorily complete R/ST 501.
2. A thesis or comprehensive examination.
3. Proficiency in a modern research language (German or French) demonstrated by passing either the ETS examination with a score of 400 or better or two years of course work with an average grade of " B " or better. Proficiency in an appropriate ancient research language (Sanskrit, Biblical Aramaic, Hebrew, Chinese, etc.) replaces this requirement for students concentrating in Ancient Mediterranean and Near Eastern Religions or in Buddhist Studies. Exceptions to this requirement, especially for students not planning to pursue further graduate degrees, can be made at the discretion of the Graduate Studies Committee.
4. Advancement to Candidacy is a statement of how the student plans to complete all courses and requirements for the degree, including establishing a date and a committee for the thesis or comprehensive examination. It is best done as early as possible. Students taking a comprehensive examination must be advanced to candidacy no later than the semester preceding the examination. Students writing a thesis are advanced to candidacy at the time they begin their thesis work.

## Courses (R/ST)

## LOWER DIVISION

## 100. Introduction to Religion (3)

Prerequisite or corequisite: One GE Foundation course.
Origin, nature, and function of religion in the individual and culture with emphasis upon and reference to outstanding personalities, sacred writings, and basic features of the world's leading religions.

## 102. Introduction to World Religions I (Early and Western)

 (3)Prerequisite/corequisite: One GE Foundation course.
A survey of representative figures, themes, the schools in Western religious thought, including Judaism, Christianity and Islam.

## 103. Introduction to World Religions II (Eastern) (3)

Prerequisite/corequisite: One GE Foundation course.
Survey of Indian, Chinese and Japanese religious thought. Emphasis will be on original texts in translations.

## 202. Religion and Society (3)

Prerequisite: Completion of GE Foundation requirements.
Religious and secular views of the relation of persons and society with emphasis upon contemporary problems of personal and social ethics, political responsibility and social structure.

## 210. Introduction to the Bible (3)

Prerequisite: Completion of GE Foundation requirements.
Overview of Sacred texts of Jews and Christians. Inspiration, Creation, Salvation, and other Biblical themes will be discussed, as well as key persons and events, such as Moses, Jesus, etc. Not available to students with credit in R/ST 101A.
230. Hell and Heaven in Judaism (3)

Explores history and development of notions of the afterlife in Judaism. Jewish ideas about the experience of death and the fate of the person who has died will be studied in the context of broader reflection on ancient Mesopotamian, Egyptian, and Greek views of the afterlife, as well as brief considerations of Christian and Muslim views of the afterlife.
240. Love, Life, and the World (3)

Prerequisite: Completion of GE foundation requirements.
Examines love in life and the world. Students will explore the philosophical, religious-mystical, psychological, social, and natural historical dimensions of love and complete both practical and research projects that will lead them to a fuller understanding of a loving life.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 301. Approaching Religion (3)

Prerequisite: Completion of GE Foundation requirements.
Study of methods of religious studies, including the comparative and phenomenological study of religions, textual criticism, exegesis, research methods and techniques.

## 302I. Religious and Social Ethical Dimenions of

 American Diversity (3)Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines religious and social ethical aspects of the adaptation of various American subcultures to the polyglot mainstreams of American culture.

## 308. Comparative Religious Ethics (3)

Prerequisite: Completion of GE Foundation requirements. Introduction to study of ethics within global perspective while introducing world religions. Major ethical questions and modes of moral reasoning in different religious traditions will be considered while focusing on why ordinary people do good and evil actions.
311. Religion and Literature in the Old Testament (3)

Prerequisites: Completion of the GE foundation requirement, completion of one or more Exploration courses, and upper division status.
Old Testament as a religious, historical and literary document with emphasis on the religion and culture of the early Hebrews. Selected books will be read each term, but prime emphasis will be put on Genesis, Exodus, the early prophets, Isaiah. The period of the conquest and the divided monarchies will be studied.

## 312I. Intertestament Literature, Palestine History, and Early Christianity (Dead Sea Scrolls) (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Historical development of Jewish religion and culture in the Second Temple period from the rise of the Maccabbees to the beginnings of Christianity with emphasis on the rise of the Jewish State, the coming of the Romans and the beginnings of primitive Christianity (Essenism, Phariseeism and Sadduceeism).

## 314. Jewish Religion (3)

From the end of the Second Temple period to the close of the Middle Ages. Development from Hellenistic Judaism to Rabbinic Judaism to philosophical theology will be gone into in some detail. Readings from Saadya, Halevi and Maimonides, etc.

## 315. Modern Jewish Thought (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Development of Jewish thought from enlightenment and emancipation from ghettos, through attempts at assimilation, the Holocaust and birth of the Jewish State. Development of conservative, reform and orthodox Judaism.

## 316. Jewish History (3)

Survey of Jewish history from early times to the present. Subjects such as the Babylonian Captivity, the fall of the Temple, the rise of Rabbinic Judaism, the Dispersion, impact of anti-Semitism, Jewish community and intellectual life in the Middle Ages, Emancipation from the Ghetto, political movements, the Holocaust, Israel.

## 317. Jewish Mysticism (3)

Prerequisite: Completion of GE foundation requirements.
Explores some major trends and themes of Jewish mystical and esoteric tradition. Trends studied include various forms of Kabalah and Hasidism. Themes include meditation and mysticism; explanations of and responses to evil; the nature of God and the relationship between human beings and the divine being; gender dynamics, and the power of ritual.

## 318. Biblical Hebrew I (3)

Biblical Hebrew I imparts the basic grammatical inflections, conjugations, and structures of elementary biblical Hebrew and starts the student on the path of mastering the specific vocabulary of biblical Hebrew. Introduces history and particularity of this language as well as standard reference tools employed in reading biblical Hebrew.

## 319. Biblical Hebrew II (3)

Prerequisite: R/ST 318.
Biblical Hebrew II completes instruction in grammar of biblical Hebrew and introduces major syntactical constructions of this language. Increases student's biblical Hebrew vocabulary, hones skills in use of reference books for biblical Hebrew, and allows initial confrontation with selections from Hebrew Old Testament itself.

## 320A. Biblical Aramaic I (3)

Prerequisite: Completion of GE Foundation requirements.
Alphabets and grammar of Aramaic, the language of Jesus, will be taught. Cultural excursuses survey the history of the ancient international language Aramaic and its role in understanding Jesus and the Judaism of his time.
Not open for credit to students with credit in R/ST 220A.

## 320B. Biblical Aramaic II (3)

Prerequisite: Completion of GE Foundation requirements.
Advanced grammar and readings in Aramaic, the language of Jesus and the international language of the Near East prior to the importation of Greek. Select cultural excursuses into the historical impact of Aramaic and special study of unpublished manuscripts. Not open for credit to students with credit in R/ST 220B.

## 322. New Testament and Earliest Christian Literature (3)

Prerequisite: Completion of GE Foundation requirements.
The emergent Christian community, seen through the missionary and pastoral letters, the synoptic gospels, the radical theologies of Paul and John and the dramatic visions of the Apocalypse.

## 331I. Islamic Religion and Culture (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
The Koran, Muhammad and the rise of Islam as a cosmopolitan faith. The development of Muslim civilization, including literature, theology, philosophy and Sufism (mysticism).

## 337I. Sufism (3)

Prerequisite: Completion of GE Foundation, one or more Explorations courses and upper-division standing.
Covers mainly Sufism and Shî ism and their intimate relationship. Examines contribution of some great Sûfis and Shî̀ ite thinkers to development of inner dimensions of Islam i.e. mysticism, esoterism, and spirituality.
Letter grade only (A-F).

## 338I. Medieval Thought in Judaism, Christianity, and Islam (3)

Prerequisites: Completion of GE Foundation, one or more Explorations Courses and upper-division standing.
Human thought and history of ideas. Survey of history of medieval Jewish, Christian, and Islamic thought. Examines contribution of some great philosophers to development of medieval thought. Highly intellectual dealing mainly with abstract concepts of metaphysics: God, creation, and theory of knowledge.

## 339. The Qur'an (3)

Prerequisites: Completion of Foundation Courses and Upperdivision standing and completion of GE Foundation requirements.
General introduction to Qur'ân and Islamic culture. Critically examines Qur'ân and analyzes major themes and ethico-religious concepts. Covers different Qur'ânic exegeses: Sunnî theologians, Shî ite theologians, Mu'tazilites, Sûfis, and Islâmic philosophers.
Letter grade only (A-F).

## 341I. Buddhism (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
The Buddha; early Buddhism; the great vehicle; and the vehicle of incantations. Transmission of Buddhism to China, Korea, Japan, Southeast Asia and Tibet. Emphasis on original texts in translations.

## 343. Religions of China (3)

Prerequisite: Completion of GE Foundation requirements.
Ancient Chinese religious thought; the penetration of Indian Buddhism and Ch'an (Zen); popular religion and the religion of the scholar-official. Emphasis on original texts in translations.

## 344. Religions of Japan (3)

Prerequisite: Completion of GE Foundation requirements.
Transmission of continental civilization to Japan; shinto, Buddhism and Tokugawa Neo-Confucianism; Genroku culture; and New Religions. Emphasis on original texts in translations.

## 351. Hinduism (3)

Prerequisite: Completion of GE Foundation requirements.
Introduction to the religious traditions of Hinduism. Emphasis on the historical and textual study of Hinduism through its various literatures (sacred, narrative, poetic, liturgical, and philosophical). Explores Vedic traditions of sacrifice, the speculative philosophy of the Upanishads, the religious epic and mythological literature, the main gods and goddesses, and the devotional poetry of the medieval poet-saints.

## 352. Religions of India (3)

Prerequisite: Completion of GE Foundation requirements.
A survey of Indian religions to the present. Emphasis will be on the ways that religions of historic India have developed and interacted.

## 353I. Religions of Southeast Asia (3)

Prerequisites: Completion of the GE foundation requirement, completion of one or more Exploration courses, and upper division status.
Introduction to the religions of Southeast Asia. Ancient religion, historical transmission and adaption of Hindu and Buddhist traditions, and recent developments in modern Southeast Asia will be discussed. Emphasis on the religious culture of mainland Southeast Asia.

## 362I. Religion and Psychology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the religious and psychological interpretation of both individual and community religious activity and experience.
(Lecture 3 hours)

## 375. The Historical Jesus (3)

Prerequisite: Completion of GE Foundation requirements.
Historical reconstruction of the life and thought of the "Founder" of Christianity in his contemporary cultural and political environment. Standard historical and religious-historical methods are introduced and applied to the preserved sources.

## 376I. Christian Origins (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Consideration of two factions in the early Church in Palestine in the First Century, one following the 'Apostle to the Gentiles' and the other following the family line of Jesus. Readings from primary sources, Paul's Letters, Eusebius, and apocryphal literature.

## 383I. Christianity and Global Ethics (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines interaction of Christianity with secular socio-economic ideologies related to globalization and response of Christianity to such ethical issues as poverty, population growth, consumerism, environmental degradation, war, and genocide.

## 391I. Religion and Science (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the occasionally harmonious, often acrimonious relationship between religion and science. Using the methods of the history and phenomenology of religion and the history and philosophy of science, students examine, beyond the particulars of the course, the fundamental insights and claims of both religion and science, moving beyond the frequently sharp prejudices they initially bring to their study, to a more reasoned understanding of each alone and in relation to each other.

## 401./501. Methods and Theories in the Study of Religion

 (3)Prerequisite: Consent of Instructor.
Analyzes and compares methodologies used in the discipline of Religious Studies. Selected methods include: social scientific; phenomenology; structuralism; textual criticism and exegesis; personalist and normative approaches to the study of religion. Critical hermeneutics such as Marxist, Feminist, Freudian, and Post-Modern are also explored.
Letter grade only (A-F).
425I. Religion and Modern Literature (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.

The role of the writer and poet in the secular modern world as religious thinker. The themes of alienation, anguish, absurdity, evil, hope, despair, mystic vision, and salvation will be among those treated.

## 442./542. Buddhist Ethics (3)

A systematic exploration of the place of ethics and moral reasoning in Buddhist thought and practice. The scope of the course is wide, with examples drawn from the whole Buddhist world, but emphasis is on the particularity of different Buddhist visions of the ideal human life. Attention is given to the problems of the proper description of Buddhist ethics in a comparative perspective.
Letter grade only (A-F).

## 448./548. Theravada Buddhism (3)

Introduction to main features of Theravada thought and practice, especially in historic and contemporary Southeast Asia. We explore the "Way of the Elders," taking refuge in the Triple-Gem. Emphasis is on internal diversity and multiple voices of tradition.
Letter grade only (A-F).

## 456./556. Introductory Sanskrit I (3)

Students will learn devanagari, the script most commonly used for Sanskrit. Primary focus on grammar, reading, translation, and composition exercises. The course is also an introduction to Indian culture using the Ramayana, a popular text in Indian history. Letter grade only (A-F).
457./557. Introductory Sanskrit II (3)

Prerequisite: R/ST 456/556.
Students will learn devanagari, the script most commonly used for Sanskrit. Primary focus on grammar, reading, translation, and composition exercises. The course is also an introduction to Indian culture using the Ramayana, a popular text in Indian history.
Letter grade only (A-F).

## 459./559. Medieval Islamic Thought (3)

Prerequisite: Upper division standing.
Survey of the history of medieval Islamic thought covering mainly theology and philosophy. It examines the contribution of great theologians and philosophers to the development of Islamic thought. Examines the adoption of Greek philosophy into Islam and the ways in which Muslims reconciled philosophy and religion.
Letter grade only (A-F).

## 460./560. Jewish Christianity (3)

Prerequisite: Consent of instructor.
History and literature of ancient Jewish Christianity in its relationship to Gentile Christianity and Judaism, from the relatives of Jesus through the fourth century.
Letter grade only (A-F).
*4671. Religion in Latin America and the Caribbean (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and Upper-division standing.
Exploration of role of religion in the history, politics, and culture of Latin America. Surveys pre-Columbian religion, the impact of the Encounter, the growth of Protestantism, Liberation Theology, and the coming of age of Afro-Cuban and Afro-Brazilian religions.
Letter grade only (A-F).

## 471I. Early Christianity and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Development of Christianity from the New Testament period to Medieval times with emphases on the growth of doctrine and church institutions in ancient and medieval society.

## 472I. Formation of Modern Christianity (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Restructuring and renewal of Christianity, from the Reformation through the dawn of modern consciousness to the challenge of 20th century secular life.

## 482I. American Religious Experience (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of major themes in the unique American religious experience. Topics include the adaptation of European Christianity to novel American circumstances, the proliferation of denominations and the varied religious response to a dynamic American society.

## *485. Contemporary Religious Thought (3)

Prerequisite: Completion of GE Foundation requirements. Critical examination of current trends in religious understanding against a background of rapid social change. New movements and issues on the religious scene considered and a variety of authors representing both East and West will be studied in order to reveal the emerging patterns of religious thought.

## *490. Special Topics in Religious Studies (1-3)

Topics of current interest in religious studies selected for intensive development. A maximum of nine units with different topics may be used in the major. Topics will be announced in the Schedule of Classes.

## D. Zen

## 499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 501./401. Methods/Theories of Religion (3)

Prerequisite: Consent of Instructor.
Analyzes and compares methodologies used in the discipline of Religious Studies. Selected methods include: social scientific; phenomenology; structuralism; textual criticism and exegesis; personalist and normative approaches to the study of religion. Critical hermeneutics such as Marxist, Feminist, Freudian, and Post-Modern are also explored.

## 542./442. Buddhist Ethics (3)

Systematic exploration of place of ethics and moral reasoning in Buddhist thought and practice. Scope is wide, with examples drawn from whole Buddhist world, but emphasis is on particularity of different Buddhist visions of ideal human life. Attention given to problems of proper description of Buddhist ethics in comparative perspective.
Letter grade only (A-F).

## 548./448. Theravada Buddhism (3)

Introduction to Theravada Buddhism, a distinctive religious tradition developed in South and Southeast Asia. Primary aim is to become acquainted with main features of Theravada thought and practice, both historically and in contemporary Southeast Asian experience. Explores what it means to be follow the "Way of the Elders," that is, to take refuge in the Triple-Gem of the Buddha, the Dhamma and the Sangha. Emphasis given to internal diversity and multiple voices of tradition. No previous study of Buddhism is presupposed.
Letter grade only (A-F).

## 556./456. Introductory Sanskrit I (3)

Supplies an introduction to fundamentals of Sanskrit language. Students will learn devanagari, script most commonly used for Sanskrit, and grammatical foundations of the language. Primary focus on grammar, reading and translation, and exercises in composition. Introduction to Indian culture through readings that tell story of Ramayana, one of most popular texts in Indian history. Letter grade only (A-F).

## 557./457. Introductory Sanskrit II (3)

Prerequisite: R/ST 456/556.
Supplies an introduction to the fundamentals of the Sanskrit language. Students will learn devanagari, the script most commonly used for Sanskrit, and the grammatical foundations of the language. Our primary focus will be on grammar, reading and translation, and exercises in composition. Introduction to Indian culture through readings that tell the story of Ramayana, one of the most popular texts in Indian history.
Letter grade only (A-F).

## 559./459. Medieval Islamic Thought (3)

Prerequisite: Upper division standing.
Survey of history of medieval Islamic thought covering mainly theology and philosophy. Examines contribution of great theologians and philosophers to development of Islamic thought.
Examines adoption of Greek philosophy into Islam and ways in which Muslims reconciled philosophy and religion.
Letter grade only (A-F).
560./460. Jewish Christianity (3)

Prerequisite: Consent of instructor.
History and literature of ancient Jewish Christianity in its relationship to Gentile Christianity and Judaism, from the relatives of Jesus through the fourth century. Texts studied include the Gospel of the Ebionites, the Gospel of the Nazoraeans, Hegesippus, the Book of Elchasai, the Pseudo-Clementines, the Disdascalia, and remarks on the Jewish Christians in church writers and Jewish sources.
Letter grade only (A-F).

## 590. Special Topics in Religious Studies (3)

Prerequisite: Consent of Instructor.
Topics of current interest in Religious Studies selected by the faculty for intensive development.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 595. Advanced Study (3)

Prerequisite: Consent of instructor.
Study under the supervision of a faculty member. Student must fulfill requirements of a selected upper division course plus additional work appropriate to graduate study as determined by the instructor of the course.
May be repeated to a maximum of 9 units with different topics in the same semester. Letter grade only (A-F).

## 599. Graduate Tutorial (1-3)

Prerequisite: Consent of instructor.
Supervised and independent study.
May be repeated to a maximum of 6 units with different topics in the same semester. Letter grade only (A-F).
604. Seminar in Religion in the Contemporary World (3)

Prerequisite: Consent of Instructor.
Advanced inquiry into aspects of religion in the contemporary World, including its ethical, cultural, historical or theoretical dimensions.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F)

## 624. Seminar in Ancient Mediterranean Religion (3)

 Prerequisite: Consent of instructor.Advanced inquiry into the religions of the Ancient Mediterranean.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

## 646. Seminar in Buddhist Studies (3)

Prerequisite: Consent of instructor.
Advanced inquiry into topics in Buddhist Studies.
May be repeated to a maximum of 9 units with different topics.
Letter grade only (A-F).

## 651. Religion in an Age of Science (3)

Examines modern opinion ranging from skeptical to hopeful on the possibilities for religious belief in our scientific age.
Letter grade only (A-F)
690. Special Topics in Religious Studies (3)

Prerequisite: Consent of instructor.
Topics of current interest in Religious Studies selected by the faculty for intensive development.
May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor.
Directed Studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 9 units in the same semester. Letter grade only (A-F).

## 698. Thesis (1-6)

Prerequisites: Advancement to candidacy, consent of advisor.
Planning, preparation and completion of thesis for the master's degree.
May be repeated to a maximum of 6 units.

# ROMANCE, GERMAN, RUSSIAN LANGUAGES AND LITERATURES 

College of Liberal Arts

## Department Chair

Jutta Birmele

## Program Directors

Stephen Fleck (French)
Carlo Chiarenza (Italian)
Jutta Birmele (German)
Harold K. Schefski (Russian)
Claire E. Martin (Spanish)
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ITALIAN
Professors
Carlo Chiarenza, Clorinda Donato
Assistant Professor
Teresa Fiore

## RUSSIAN

## Professor

Harold K. Schefski
SPANISH
Professors
Harold L. Cannon, Claire E. Martin
Associate Professors
Maria Carreira, Alicia del Campo, Alexander Rainof, Lisa Vollendorf
Assistant Professors
Bonnie Gasior
Administrative Support Coordinator
Cindy McCarty

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

The Department of Romance, German, Russian Languages and Literatures teaches the languages, literatures and cultures of the Spanish, French, German, Italian and Russian-speaking peoples to undergraduate and graduate students at California State University, Long Beach. The department recently began to offer courses in Arabic, Hebrew and Portuguese and plans to expand these language programs.

It is the mission of the Department to deliver the highest quality information in the various disciplines it represents to its students and to the extended University community through the application of the most current and innovative teaching methodologies and technologies. The Curriculum supports B.A. and M.A. programs in French, French Studies, German, Italian Studies, and Spanish and Minor programs in Italian, Spanish, Russian, German, French, and Liberal Studies; the Department also participates in the granting of the Singles Subject Credential in French, German, Italian and Spanish. Our Department also supports programs that require our courses, such as International Studies and International Business. High standards are maintained through scholarly contributions and active service to the University, profession, and community.

Our commitment to scholarly and instructional excellence is manifest in the training the Department provides for prospective foreign language teachers and instructors K-16; Ph.D. students in French, Spanish, German, Romance Languages, Linguistics, Comparative Literature and Cultural Studies; language professionals in the fields of translation and interpreting, travel and technical disciplines. Considering the rapidly evolving fields of languageacquisition, pedagogy, cultural and literary studies and their interrelatedness, the Department promotes research activities of both a theoretical and applied nature.

The Department considers teaching and scholarship to be of primary and equal importance and places high value on activities that integrate the two. University service is also an essential component of a candidate's program.

Our world presents itself in many languages, and humanity indeed is blessed with enormous diversity. Whether you search for your own family roots or follow a concrete plan on a particular career path, we would be pleased to be of assistance. Students who miss the opportunities to study a foreign language close doors for themselves in more than one way. Without foreign language skills "international" in your career will amount to employment at the "International House of Pancakes."

Functional foreign language skills, an understanding of other cultures and critical reflection of what it means to be an American are attributes which are increasingly necessary for successful careers even in your neighborhood. Right here in Long Beach, a city of over 400,000, almost half of the residents speak a language other then English at home, according to the 2000 national census. The numbers of
speakers of a foreign language in Los Angeles County are even higher, in Orange County lower only by a bit. Although without doubt, Spanish is the most often declared language, you will be amazed at the presence of sizable communities of Italian, French, German, Portuguese, Arabic and Russian speakers in our backyards! The newly created "Language Map" of the Modern Language Association (www.mla. org) will inform you, right down to the zip code, about the wealth of languages spoken anywhere in the United States. Please take a look and draw your own conclusion what this might suggest for your career plans. The Modern Language Association advises:

Professionals who know other languages are called on to travel and exchange information with people in other countries throughout their careers. Knowing more than one language enhances opportunities in government, business, medicine and health care, law enforcement, teaching, technology, the military, communications, industry, social service, and marketing. An employer will see you as a bridge to new clients or customers if you know a second language.

When other universities and colleges throughout the United States shut down or reduced many of their FL programs, we expanded and added (Arabic, Hebrew, Portuguese, new BA in French Studies, and in the process of establishing a Russian Studies BA). RGRLL offers the first BA in Translation and Interpretation (Spanish) in the nation, and plans for further expansion are in progress. We will keep you posted.

## Teaching Assistantships in French, German, and Spanish

A limited number of Teaching Assistantships well as Research Assistantships are available for qualified students in the French, German and Spanish M.A. Program. New applicants for Teaching Assistantships must have been accepted into the M.A. Program and must present a letter of application, a resume, a complete set of transcripts, and arrange for three confidential letters of recommendation to be sent to the Graduate Coordinator. Teaching Assistants are required to enroll in RGR 524 (Second Language Acquisition). New Teaching Assistants are normally assigned only one class to teach during their first semester and will receive training and supervision. Students are also encouraged to apply for financial assistance under the Federal Work-Study Program.

## Scholarships Available in the Romance, German, Russian Languages and Literatures Department

For Spanish Students:
Ducelia Cobb Contreras Scholarship - 1 for $\$ 1,000$
RGRLL Scholarship for Spanish - 1 for $\$ 500$
For German Students:
Amy S. Kimball Memorial Scholarship - 1 for $\$ 1,000$
Prof. Dr. Wilm Pelters Memorial Scholarship - 1 for \$1,000
For Russian Students:
Russian Scholarships - 4 for $\$ 500$ each
For any overseas language study:
Frank Fata Scholarships for Language Studies Abroad 2 for $\$ 500$ each
Study in France for Hispanopones - \$500. See Dr. Donato (562) 985-4316 or Dr. Martin (562) 985-4638

For Italian Students:
Italian Scholarships - see the Italian Program Director, Dr. Carlo Chiarenza (562) 985-4621, for information about these scholarships.
For any language student - Five for $\$ 1,000$ each. See Dr. Fleck (562) 985-8525.
For more information regarding the available scholarships, please contact Cindy McCarty, (562) 985-4318.

## Department Courses (RGR)

## UPPER DIVISION

## 314I. Introduction to Contemporary Europe (3)

Prerequisite: Completion of the G.E. Foundation, one or more Exploration courses, and upper-division standing.
Interdisciplinary introduction to contemporary European cultures and related issues through a combination of travel and study. Introduced to some principles and methods useful for analyzing cultures and their own interactions with them.

## Same course as C/LA 314I.

## 315I. Contemporary European Society (3)

Prerequisite: Completion of the G.E. Foundation, one or more Exploration courses, and upper-division standing. Interdisciplinary approach to understanding cultural and political developments in contemporary European societies. Although study of history serves as foundation of course, perspectives and methodologies of several other social science disciplines are important component.
Same course as C/LA 315I.

## 346I. The European Cinema of Communism, Fascism

 and Resistance (3)Prerequisites: Completion of the GE Foundation, one or more exploration courses, and upper division standing.
Focuses on European cinema of twentieth century as manifestation of totalitarian and ideological movements preceding, in-between, and following the two world wars. Ensuing and ongoing resistance movements also examined.
Same course as HIST 346I and FEA 346.

## 424./524. Second Language Acquisition (3)

Study of history of second language learning/teaching. Overview of current research in second language acquisition, with emphasis on implications for teaching foreign languages. Evaluation and development of methods, materials, and tests.
Letter grade only (A-F). Undergraduates register in RGR 424; graduates register in RGR 524. (Seminar)

## 425./525. Romance Linguistics (3)

Prerequisites: FREN 424, or SPAN 423, or ITAL 414 or consent of program director.
Comparative description of the constitution and development of Romance languages in all their aspects: phonetical, lexical and morphosyntactical. Taught in English.
450I. Consequences of the Encounter: The Americas, Europe, and Africa (3)
Prerequisites: Completion of the GE Foundation requirement, completion of one or more Exploration courses and upper-division status.
Consequences of Columbian encounter in Africa, Europe and the Americas (1492-present). Art, Literature, and Social Sciences mesh in order to examine encounter's relation to obliteration, suppression and creation of culture in Old and New Worlds.
Same course as CHLS 450I.

## 470./570. New Technologies in the Learning of Languages Other Than English (3)

Prerequisites: Advanced communication skills in the target language; basic knowledge of computer use (LI 110 or ISTE competencies for K-12 students); EDSS 300F, or concurrent enrollment, or consent of instructor.
Introduction to computer-based technology in the teaching of Languages Other Than English (LOTE). Production of basic multimedia presentations and web-pages using authoring software. Legal, ethical, privacy and security issues. Meets the Single Subject Credential Program Level I computer proficiency requirement for LOTE students.
Letter grade only (A-F).

## GRADUATE LEVEL

## 524./424. Second Language Acquisition (3)

Study of the history of second language learning/teaching. Overview of current research in second language acquisition, with emphasis on its implications for teaching foreign languages. Evaluation and development of methods, materials, and tests. Letter grade only (A-F). Undergraduates register in RGR 424; graduates register in RGR 524. (Seminar)

## 525./425. Romance Linguistics (3)

Prerequisites: FREN 424, or SPAN 423, or ITAL 414 or consent of program director.
Comparative description of the constitution and development of Romance languages in all their aspects: phonetical, lexical and morphosytactical. Taught in English.

## 570./470. New Technologies in the Learning of Languages Other Than English (3)

Prerequisites: (A) Advanced communication skills in the target language. (B) Basic knowledge of computer use (ETEC 110 or ISTE competencies for K-12 students). (C) EDSS 300F, or concurrent enrollment, or consent of instructor.
Introduction to computer-based technology in the teaching of Languages Other Than English (LOTE). Production of basic multimedia presentations and web-pages using authoring software. Legal, ethical, privacy and security issues. Meets the Single Subject Credential Program Level I computer proficiency requirement for LOTE students.
Letter grade only (A-F).

## 601. Teaching Methodology (3)

Prerequisite: Graduate level or consent of Program Director in French, German, or Spanish and instructor.
Course should be taken prior to teaching in RGRLL Department. With consent of program director and language coordinator, course can be taken either concurrently with teaching assignment or at upper division level.
Credit/No Credit grading only.

## Arabic Courses (ARAB)

## 101A. Standard Modern Arabic I (4)

Prerequisite or corequisite: Any Foundation course.
Beginning Arabic.
Not open for credit to native speakers and to Heritage speakers fluent in Arabic.

## 101B. Standard Modern Arabic II (4)

Prerequisite or corequisite: Any Foundation course. ARAB 101A or consent of instructor.
Continuation of the work in 101A in speaking, pronunciation, comprehension and writing.
Not open for credit to native speakers and to Heritage speakers fluent in Arabic.

## Hebrew Courses (HEBW)

## 101A. Modern Hebrew (4)

Prerequisite or corequisite: Any Foundation course.
Designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

## 101B. Modern Hebrew (4)

Prerequisite or corequisite: HEBW 101A. Corequisite: Any Foundation Course.
Continuation of HEBW 101A, designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

## Department Chair

Jutta Birmele
Program Director
Harold K. Schefski
RGRLL Language Coordinator
Markus Muller
Single Subject Coordinator for L.O.T.E.
Jean-Jacques Jura
Department Office
McIntosh Humanities Building (MHB), Room 820

## Telephone

(562) 985-4318

Faculty
Professor
Jutta Birmele
Associate Professor
Jeffrey High
Administrative Support Coordinator
Cindy McCarty

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

## Minor in Russian (code RGR_UM04)

The purpose of the Minor in Russian is to provide interested students with a focused program of studies in the Russian language. The Minor in Russian is available to any non-Russian major.

## Requirements

Prerequisites: RUSS 101A(4), 101B (4)
Twenty additional units, of which 12 units must be taken in upper-division course work: RUSS 201A (4), 201B (4), 310 (3), 312 (3), 314 (3), 410 (3).

## Certificate in Russian and East European Studies (code RGR_CT01)

Russian and East European Studies has an interdisciplinary program which offers students interested in this field the opportunity to pursue courses leading to a Certificate in Russian and East European Studies. Courses used to meet this certificate requirement may be counted also, where applicable toward the General Education requirement and the major and teaching minor requirements of the cooperating departments.

Interdisciplinary in concept, it covers the fields of anthropology, economics, geography, history, comparative literature, philosophy, political science and the Russian language.

The expanding opportunities for careers and public service in foreign policy administration, international organization, international business activities, education and information for intercultural understanding, make it useful to organize studies leading to a certificate in this ever important part of the world. This will tend to enhance the student's possibility for a career in business, education or government, and broaden the scope of understanding. Interested students should apply to the Director, Russian and East European Studies, Dr. Harold Schefski, Department of Romance, German and Russian.

## Requirements

1. A bachelor's degree with an approved major. Certificate can also be earned concurrently with the bachelor's degree.
2. A minimum of two semesters of a Slavic language;
3. 18 units selected from four of the disciplines listed below chosen in consultation with the student's advisor. No more than six units of any one discipline shall apply toward the certificate; ANTH 490*; CWL 349, 449; ECON 490*; GEOG 318; HIST 341A, 341B, 490*; 495*; PHIL 490*; POSC 306, 356, 357, 497; RUSS 101A-B, 201A, 201B, 310, 312, 314, 410, 428; RGR 346 I.
4. Cumulative GPA of 2.75 in all courses in the student's approved certificate program.
*May be taken only when course work is applicable to Russian and East European Studies. Consultation with director of the center is required.

## Courses (RUSS)

## LOWER DIVISION

## 101A. Fundamentals of Russian (4)

Prerequisite or corequisite: Any Foundation course.
Beginning Russian. Practice in grammar, reading, pronunciation, writing and conversation.
(CAN RUSS 2)

## 101B. Fundamentals of Russian (4)

Prerequisite or corequisite: Any Foundation course.
Continuation of RUSS 101A. (CAN RUSS 4). Practice in grammar, reading, pronunciation, writing and conversation.

## 201A-B. Intermediate Russian $(4,4)$

Oral and written practice with grammar review.
201A: Prerequisite: RUSS 101B and completion of GE Foundation requirements (or entering competency equivalent to RUSS 101B and completion or concurrent enrollment in at least one Foundation course.
201B: Prerequisite: RUSS 101B and completion of GE Foundation requirements (or entering competency equivalent to RUSS 101B and completion or concurrent enrollment in at least one Foundation course.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 310. Russian Literature in English (3)

Prerequisites: ENGL 100 or equivalent and/or any course in literature or European history.
Taught in English, this course examines the major themes of Russian life as seen through the literature of the nineteenth and twentieth centuries

## 312. Advanced Russian (3)

Required background or experience. Ability to read general material in Russian and to translate non-technical material into the language. Extensive reading of Russian writings, review of grammatical principles, and a general consolidation of the four language skills: reading, oral comprehension, composition, and conversation

## 314. Russian Conversation (3)

Prerequisite:Upper-division standing in Russian or consent of instructor.
Intended to meet specific, everyday situations and to provide help to those who intend to use Russian for travel, work, or classroom instruction

## 399. Directed Studies in Russian Language (1-3)

A Directed Studies course designed to meet the individual needs of students.

## 410I. Introduction to Russian Civilization (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of the characteristic features of Russian culture with special attention to the study of art, architecture, folklore, music, poetry and religion.

## 428. Russian Cinema (3)

Prerequisite: Upper division standing
Focuses on the Socio-political and aesthetic aspects of Russian Cinema, delineating the following periods: Soviet Silent Cinema, Stalinist Cinema, Cinema under the Thaw, Cinema under Brezhnev, and Contemporary Cinema.
Letter grade only (A-F). Same course as FEA 458.

## 499. Directed Studies in Russian (1-3)

Prerequisites: Senior standing, consent of instructor.
Readings in areas of mutual interest to student and instructor that are not a part of any regular course. Written report or project may be required.

## SCIENCE EDUCATION <br> College of Natural Sciences and Mathematics

Department Chair<br>Maureen M. McMahon<br>Department Office<br>Faculty Office (FO) 5, Room 118<br>Telephone/FAX<br>(562) 985-4801/985-7164<br>Website<br>www.cnsm.csulb.edu/depts/scied<br>Faculty<br>Professors<br>Alan Colburn, Patrick F. Kenealy, Maureen M. McMahon, William C. Ritz (Emeritus)<br>Associate Professors<br>Laura Henriques

## Assistant Professors

Susan Gomez-Zwiep, Thomas Kelty, James Kisiel, Catherine MartinDunlop, William Straits
Single Subject Science Credential Advisors
Laura Henriques, James Kisiel

## Graduate Advisor

Alan Colburn
Administrative Support Coordinator
Donna Alexander

The Department of Science Education is strongly committed to the improvement of teaching and learning in science at all levels, Pre-Kindergarten through University. The activities of the Department are highly diversified, ranging from its roots in teacher preparation through science education projects of national significance. Faculty of the Department of Science Education play an important role in preparing and credentialing elementary and secondary school teachers for science teaching. Significant emphasis is also placed on providing experienced teachers with continuing opportunities to refine and raise the effectiveness of their science teaching. Science Education faculty similarly work with university science department teaching associates. In all its endeavors, the Department maintains close ties with the teachers and schools of the greater Long Beach area. The Department offers a Masters of Science in Science Education degree for the practicing teacher of science in elementary, middle and high schools as well as educators in informal science settings.

The Department also undertakes projects aimed at precollege students. The "Head Start on Science" project, one
of only two such projects supported by the US Department of Health and Human Services, is developing a "sense of wonder" science component for 4-year old "Head Start" youngsters, their teachers and parents. Other recent projects of the Department have included: The Project to Improve Methods Courses in Elementary Science and the Minority Opportunities in Science Teaching Project (Project MOST), Long Beach Science and Math Teacher Education Partnership (LBESTEP), CSU/NASA Education Collaborative, Teaching Secondary School Scholar Partnership (TSSSP), Noyce Scholarship Program, and Young Scientists' Camp. To complement their teaching activities, Science Education faculty members maintain an active program of research and are involved in a variety of local, state, and university organizations and projects to improve science and environmental science education.

The Department of Science Education houses a suite of instructional classrooms and a multimedia computer laboratory. The classrooms and lab are Internet-wired offering students interconnectivity and access to many webbased instructional materials. The Department is committed to meaningful integration of technology into the teaching and learning of science. All Science Education students are required to use multimedia tools and electronic probeware in and outside of class. The Department also maintains an extensive Science and Environmental Education Curriculum and Materials Resources Center that includes science teaching guides, textbooks, professional journals, and computer software. Students and local teachers are welcome to explore these resources during campus and daytime hours. The Department also sponsors a student chapter of the National Science Teachers Association (NSTA) known as the Association of Future Science Educators (AFSE).

## Master of Science in Science Education

The M.S. in Science Education is designed primarily for credentialed K-12 teachers interested in deepening their understanding of science, education, and the teaching and learning of science. The program includes a blend of courses from the Department of Science Education, the College of Natural Sciences and Mathematics, and the College of Education. The program introduces candidates to Science Education as a field of study, with its own journals, issues, and research areas.

## Option in Elementary Science Education (code SCEDMS01)

The option in Elementary Science Education is designed for teachers who are K-8 generalists. Although aimed at those with a Multiple Subject credential, the program may also be appropriate for Single Subject teachers interested in increasing the breadth of their scientific knowledge.

Students completing this option will be prepared to assume positions of greater science leadership at their schools or districts, or go on to further graduate study in science education.

## Admission to the Department

## Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student stated in this Catalog under Graduate Degrees and Post Baccalaureate Studies, the Department of Science Education requires:

- California Multiple Subject or science teaching credential (or the equivalent).
- GPA of at least 3.0 for the last 60 units of study completed.

Students are expected to exhibit high standards of writing proficiency. Students missing any admission criteria may only be admitted after receiving the approval of a department graduate faculty committee.

## Application

Prospective graduate students in M.S. in Science Education, including CSULB graduates, must formally apply for admission to CSULB as described previously in this Catalog and must also apply directly to the Department of Science Education. All applicants must submit the following documents directly to the department office:

1. Completion of departmental application form, including personal statement. The application form is available in the Department of Science Education office and on the internet [http://www.scienceteaching.org, click on "Masters Info"].
2. Two confidential recommendation letters, sent under separate cover, including one from an administrator or supervisor at a school where the applicant is (or was) employed.
3. Transcripts (in addition to those required by the university; photocopies acceptable).
Prospective graduate students must also receive a positive recommendation following an interview with graduate faculty.

## Review by the Graduate Studies Committee

The Graduate Studies Committee will review all completed applications and recommend either accepting the applicant as a Classified or Conditionally Classified graduate student, or denying admission. All accepted students should contact the Departmental Graduate Advisor before their first semester for advisement and orientation.

## Classified Graduate Student

The Department of Science Education will recommend for admission as a Classified graduate student any applicant who has met all prerequisites and been accepted by the Graduate Studies Committee as a Conditionally Classified student.

## Conditionally Classified Graduate Student

An applicant who fails to meet the criteria for Classified admission to the Department may be considered by the Graduate Studies Committee for admission as a Conditionally Classified graduate student. The Graduate Studies Committee will determine what deficiencies each applicant has and specify what the individual must do to make up those deficiencies. The applicant must make up all such deficiencies before attaining Classified status.

## The Program of Study

The Program of Study includes successful completion of:

1. 6 units from EDP 400, 419, 420, 519, 520, 595, or ETEC 623 (chosen in consultation with advisor)
2. Science Education core courses: SCED 550, 551, 552, 697
3. Science courses: SCED 500, 501, 502.
4. Thesis/Project: SCED 698

## Advancement to Candidacy

1. A student must be designated as a Classified Student in good standing prior to advancing to candidacy.
2. A student must satisfy the general requirements of the University, including fulfilling the Graduation Writing Assessment Requirements (GWAR).
3. The student's M.S. program must be approved by a faculty graduate advisor, the Department Graduate Advisor and the Department Chair before submission to the Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics.
4. Advancement to candidacy may take place upon satisfactory completion of six units in the M.S. program. A student must have been advanced to candidacy before initiating formal thesis research necessary to complete the M.S. degree.

## Option in Secondary Science Education (code SCEDMS02)

The Option in Secondary Science Education is aimed at teachers currently holding a Single Subject credential in Science. Graduate students enrolled in this option complete 9 units of graduate coursework in a Science discipline. The option is ideal for teachers interested in broadening their backgrounds in both Science and Science Education.

Students completing either option will be prepared to assume positions of greater science leadership at their schools or districts, or go on to further graduate study in science education.

## Requirements

The program of study includes successful completion of:

1. 6 units from EDP $400,419,420,519,520,595$, or ETEC 623 (chosen in consultation with advisor)
2. Science Education core courses: SCED 550, 551, 552, 697
3. Science courses: 9 units of graduate level Science (chosen in consultation with advisor)
4. Thesis/Project: SCED 698.

## Option in Informal Science Education (SCEDMS03)

The option in Informal Science Education is aimed at educators currently working in non-classroom settings such as museums, zoos, and nature centers, as well as those charged with fostering the public understanding of science. Graduates enrolled in this program will strengthen their understanding of science, gain a deeper conception of the objectives and theories of science education, and examine the contexts of learning beyond the traditional classroom. This option is ideal for informal educators who wish to better understand and facilitate the learning that occurs within their institution. Students completing this option will be prepared to assume positions of greater science leadership within their institutions, or go on to further graduate study in science education.

## Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student stated in this Catalog under Graduate Degrees and Post Baccalaureate Studies, the Science Education department requires:

- California Multiple Subject or science teaching credential, or the equivalent*;
- GPA of at least 3.0 for the last 60 units of study completed.
* Those students participating in the informal science option may substitute one or more years experience working as an educator in an informal learning setting; a letter of support is required.
Students are expected to exhibit high standards of writing proficiency. Students missing any admission criteria may only be admitted after receiving the approval of a department graduate faculty committee.


## Program of Study

The program of study (33 units) includes the successful completion of:

- Science Education core courses: SCED 550, 551, 552, 553, 697
- 6 units of science courses from: SCED 500, 501, 502, or other graduate-level science courses chosen in consultation with advisor
- 3 units research methodology from: EDP 520, REC 696, in consultation with advisor
- 3 units non-profit management or other practitionerrelated course from: REC 528, 521, in consultation with advisor
- 3 units elective, chosen in consultation with advisor
- SCED 698, Thesis

Courses (SCED)

## UPPER DIVISION

302. Elementary School Science Workshop (3)

Prerequisites: SCED 401.
Practicum on development and use of "hands-on" elementary school science teaching/learning activities, units, and learning centers.
Letter grade only (A-F). (Lecture 2 hrs., workshop 2 hrs.) Course fee may be required.

## 401. A Process Approach to Science (3)

Prerequisites: BIOL 200; PHSC 112; GEOL 102, 104; all with a "C" or better grade.
Processes of science as they relate to life, earth, and physical sciences. Practical approaches to understanding how science works modeled and integrated throughout.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

## 403. Integrated Science (3)

Prerequisite: Completion of all credential breadth requirements for the Single Subject Teaching Credential Program in Science, three-fourths of the credential specializations courses, and consent of instructor. Enrollment limited to students who intend to pursue a Single Subject Credential in Science.
Requires presentations, discussions, critical evaluation by students on selected interdisciplinary topics in sciences, and field work in integrated science assignments.
Letter grade only (A-F).

## 404. The Nature of Science and Scientific Reasoning for Teachers (3)

Prerequisites: Completion of at least three-fourths of the credential specialization courses for Single Subject Teaching Credential in science and consent of instructor. Enrollment limited to students who intend to pursue a Single Subject Credential in Science.
Course has three aims. The first is students better understand nature of science - its history, philosophy, psychology, and sociology. Second, students better understand methods of science and how to critically evaluate reports about scientific investigations. Finally, students learn how to apply these understanding to the 6-12 classroom.
Letter grade only (A-F). (Lecture 3 hrs .)
*475. Teaching and Learning Science, K-8 (3)
Prerequisite: Admission to the Multiple Subject Credential Program. Methods for teaching elementary school science. Development of sequenced, integrated inquiry-based science lessions addressing the needs of all learners.
60 contact hours, however, actual contact vary as course is offered with an on-line distance component (see Schedule of Classes footnote). TPA Task 3 completion partial fulfillment of course. 10 hours minimum of fieldwork in classrooms where at least $25 \%$ of students are classified as English learners, or concurrent enrollment in EDEL 482.
Letter grade only (A-F). Course fee may be required. Same course as EDEL 475.

## 490. Special Topics in Science Education (1-3)

Prerequisites: Consent of instructor.
Topics in Science Education. Course content will vary from section to section.
May be repeated to a maximum of 3 units with different topics in different semesters with consent of instructor. Letter grade only (AF). (Seminar, 1-3 hrs.)
496. Directed Studies in Science Education (1-3)

Prerequisites: Consent of instructor.
Supervised study of current topics in science education.
May be repeated to a maximum of 3 units with different topics in different semesters. Letter grade only (A-F).

## GRADUATE LEVEL

500. Life Science Applications for K-8 Teachers (3)

Prerequisites: Admission to M.S. in Science Education program; BIOL 200.
Emphasizes major themes and processes in life sciences, focusing on deepening understanding of concepts and approaches to teaching material in K-8. Approaches to developing/teaching inquirybased/experiential learning units in biology modeled and integrated throughout course.
Letter grade only (A-F). (Seminar 3 hrs.)

## 501. Earth Sciences Applications for K-8 Teachers (3)

Prerequisite: Admission to the M.S. in Science Education program and GEOL 102+104 or GEOL 106.
Investigates earth science topics with focus on deepening connections between concepts in earth science and matter and energy cycling, providing applications of earth science concepts and activities in K-8 classrooms and schools.
Letter grade only (A-F). (Seminar, 3 hrs.)

## 502. Physical Science Applications for K-8 Teachers (3)

Prerequisite: Admission to M.S. in Science Education program; PHSC 112.
Investigates physical science topics with focus on deepening students' science understanding while showcasing applications of physical science for students' personal lives and their K-8 classrooms and schools.
Letter grade only (A-F). (Seminar, 3 hrs.)

## 550. Current Issues and Research in Science Education

 (3)Prerequisite: Admission to M.S. in Science Education program. SCED 550 is a core course in the M.S. in Science Education. Introduces students to body of research and practical knowledge shared by science education community. Includes choosing, studying, and discussing articles from science education literature relevant to key issues in science education. Course requirements include attending science teacher's conventions.
Letter grade only (A-F). (Seminar, 3 hrs.)

## 551. Science Teaching, Learning and Curriculum Models (3)

Prerequisite: Admission to M.S. in Science Education program and SCED 550. SCED 551 is a core course in the M.S. in Science Education.
Introduces students to professional literature about science teaching and learning. Traces historical development of elementary/secondary science curriculum models. Students examine role science and education organizations played in reforming science curriculum, and analyze curricula from variety of teaching/learning perspectives.
Letter grade only (A-F). (Seminar, 3 hrs .)
552. Nature of Science (3)

Prerequisite: Admission to M.S. in Science Education program and SCED 550.

A core course in the M.S. in Science Education. Looks at science from historical, philosophical, psychological, and sociological perspectives. Examines perceptions of science and scientists, especially views of science in different cultures and times. Discusses using these perspectives to teach students about nature of science.
Letter grade only (A-F). (Seminar, 3 hrs.)

## 553. Science Learning in Informal Settings (3)

Prerequisite: Admission to Science Education M.S. program consent of instructor. SCED 553 is a core course required of all Science Education M.S. candidates who have declared an option in informal science learning.

Examines unique characteristics of non-school learning settings and how they promote (or hinder) scientific understanding. These 'non-school settings' include science museums, zoos, aquaria, nature center and even homes, where media such as television and the Internet play a prominent role. Multiple theoretical perspectives will be examined. Students will engage in their own research project in order to better understand an informal learning. Letter grade only (A-F). (Seminar, 3 hrs.)

## 697. Directed Research (1-3)

Prerequisite: Consent of instructor and admission to M.S. in Science Education program.

Independent investigation of a research problem or directed project, under the direction of a faculty member.
Letter grade only (A-F).

## 698. Thesis (1-3)

Prerequisite: Advancement to Candidacy for the M.S. in Science Education, 18 units of coursework required for M.S. Science Education completed, and consent of the chair of the thesis committee.
Planning, preparation, and completion of the thesis project in Science Education.

Letter grade only (A-F).

# SINGLE SUBJECT TEACHER EDUCATION PROGRAM 

## College of Education

## Acting University Coordinator

Karen Hakim-Butt

## Office

Teacher Preparation Advising Center (ED1-67)

## Telephone

(562) 985-5326

## Website

www.ced.csulb.edu/single-subject
Assistant to the Coordinator
Vacant
Office Assistant
Erin Danks

## Credential Advisors

Susan Carlile (English Education)
Jean Jacques Jura (Languages Other Than English Education)
Dale Evans (Health Science Education)
Elisabeth Hartung (Art Education)
Laura Henriques (Science Education)
Tim Keirn (Social Science Education)
Deborah Mitchell (Music Education)
Margaret Lichty (Home Economics Education)
Emyr Williams (Physical Education)
Angelo Segalla (Mathematics Education)

Ateacher with a Single Subject Credential is authorized to teach the specific subject(s) named on the credential in departmentalized schools. This is commonly done in California high schools and in most California junior high and middle schools. However, a teacher authorized for single subject instruction may be assigned to teach any subject in his or her authorized fields at any grade level: pre-school, kindergarten and grades one through twelve; or in classes organized primarily for adults. The Single Subject Credential Program (SSCP) prepares university students to be credentialed in California for single subject instruction. At CSULB the program includes courses in the student's teaching subject area, in Secondary Education (EDSE), and in Single Subject Education (EDSS).

Students are able to receive information brochures by calling the Teacher Preparation Advising Center at (562) 985-5326.

## Single Subject Credential Program (code 100)

The Single Subject Credential Program is a 44 unit program comprised of one prerequisite, four co-requisites, four core courses, and the capstone student teaching experience and student teaching seminar. EDSS 300, the prerequisite course, must be taken prior to other EDSS and EDSE courses. The co-requisites may be taken prior to or concurrent with EDSS 300, or concurrent with the core courses. All course work must be completed prior to student teaching, except for the student teaching seminar which is taken concurrent with student teaching. Student teaching is a full teaching day, Monday through Friday, for approximately 20 weeks under the guidance of one or more cooperating teachers and a university supervisor.

## Program Courses

Prerequisite: EDSS 300 (separate sections offered for each subject area)
Corequisites: EDP 301 or 302 or 305; HSC 411B; EDSP
350; Level I technology course or state-approved exam
Core Courses: EDSE 435, 436, 457; EDSS 450 (separate sections offered for each subject area)
Capstone: EDSS 472 and 473 or 572 and 573
Candidates in the 10 subject area programs can meet the computer technology requirement through the following courses: Art (ART 305), English (ENGL 337), Home
Economics (FCSE 387), Health Science (ETEC 444), LOTE (RGR 470), Mathematics (MTED 301), Music (MUS 125T), KIN (KIN 354), Science (EDSS 300C, 450C, 472), Social Science (ETEC 444).

All professional coursework for the credential must be completed within seven years of admission to the program.

In addition to professional preparation, all credential candidates must demonstrate subject matter competence by one of the following: (a) completion of a Commissionapproved subject matter program; (b) passing scores on the CSET or SSAT exam; (c) transcript review. Candidates should confer as early as possible with the Credential Advisor in their subject area to develop an efficient program plan.

## Admission to the Program

Before beginning the Single Subject Credential Program, students should be admitted to the university. Apply for admission if you are (a) a graduating senior at CSULB, (b) transferring from another institution, or (c) returning to the university after an absence of one or more semesters. Admission to the university does not constitute admission or acceptance in the SSCP. Application to the program is normally made as part of the course requirements for EDSS 300. Students may take the EDSS 300 course as early as the junior year with a minimum of 60 units.

## Program Admission Requirements

1. Complete the prerequisite course EDSS 300 in the appropriate subject area, with a minimum grade of "B."
2. Perform satisfactorily in the 45 hour field work requirement in EDSS 300.
3. Attain a grade point average of at least 2.67 in all baccalaureate and post baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester units or 90 quarter units attempted.
4. Complete a personal interview with program faculty.
5. Submit two letters of recommendation that speak to the candidate's potential for successful public school teaching.
6. Submit a written statement of professional goals and philosophy of education.
7. Submit an application for a Certificate of Clearance to the California Commission on Teacher Credentialing (CCTC), or provide evidence of recent fingerprint clearance.
8. Submit a tuberculosis skin test or chest x-ray taken within the previous three years. Tuberculosis clearance must be valid through student teaching.
9. Take the CBEST exam. You must take all three parts of the exam. (Passage of the exam is required to advance to student teaching.)
10. Demonstrate proficiency in reading and writing English by (1) attaining the minimum passing score of 37 on the reading portion of the CBEST exam or by (2) achieving a "C" grade or better in a course satisfying the General Education requirement in literature or philosophy and by (1) attaining the minimum passing score of 37 on the writing portion of the CBEST or by (2) fulfillment of the Graduation Writing Assessment Requirement (GWAR).
11. Demonstrate ability to communicate orally in English at the level required of public school teachers by demonstration of English production skills in the course EDSS 300 and through an oral interview with subject matter program faculty. In the case of candidates for a credential in teaching Languages Other Than English, there is a bilingual interview requirement in English and the target language.
12. Demonstrate personality and character traits that satisfy the standards of the teaching profession and suitable aptitude for teaching in public schools through the application documentation, the personal interview, and performance in the course EDSS 300. Candidates must continue to demonstrate appropriate character and personality traits through completion of the program
13. Submit a completed program application to the EDSS 300 instructor.
14. Complete all requirements for admission to the program unique to the candidate's subject matter program.

## Preliminary Credential

Successful completion of the Single Subject Credential Program leads to the Preliminary Credential, which is valid for five years.

## Credential Requirements

1. Hold a bachelor's degree from an accredited institution.
2. Satisfy the U. S. Constitution requirement (POSC 100 or 391 or exam or equivalent course from another institution).
3. Pass CBEST.
4. Hold a Certificate of Clearance (fingerprint check).
5. Demonstrate subject matter competence.
6. Complete all prerequisite, co-requisite, core and capstone courses with a " B " average and a minimum grade of "C". A minimum grade of "B" must be attained in EDSS 450.
7. Demonstrate Level I Computer proficiency.
8. Complete student teaching.

## Student Teaching

Student Teaching is a full day, full semester responsibility following the school district calendar. Students teach three classes which represent different aspects or levels of the single subject major. The other two periods are for preparation and observation. The university determines the specific student teaching assignment. There are a wide variety of schools and teaching situations available in the program service area representative of the diversity of the region.

Advancement to Student Teaching is based upon a second thorough assessment of the candidate's qualifications. The process involves an evaluation of the applicant's file and an interview with faculty in the Single Subject Program. The criteria for advancement are as follows:

1. Potential for success in teaching, as indicated by successful leadership, teaching experience, or work experience. Updated information regarding the candidate's most recent experience, including work in EDSS 450, forms the basis of this assessment.
2. Continuing motivation for and enthusiasm toward teaching, together with those personality traits believed essential for successful teaching. Evidence includes a strong recommendation from the instructor of the 450 class and further recommendations from faculty who have worked with or have interviewed the student since the time of admission to the credential program.
3. Academic competence, overall and in the teaching major. The level of academic achievement of candidates is expected to be above average.

## Advancement to Student Teaching Requirements

1. Member in good standing of the Single Subject Credential Program.
2. A GPA of 2.75 in the last 60 units, or 2.67 overall.
3. Complete all program courses, except Student Teaching and Seminar.
4. A minimum " $B$ " grade point average in program courses, including prerequisites, corequisites and core courses, with no grade lower than "C." Completion of EDSS 450 with a minimum grade of "B."
5. TB clearance (clearance must be valid though completion of student teaching).
6. Pass the California Basic Educational Skills Test (CBEST) prior to the student teaching application deadline.
7. Satisfy the subject matter mastery requirement prior to the student teaching application deadline.
8. Proof of identity and character clearance (Certificate of Clearance)
9. Attend a student teaching application meeting and submit a student teaching application by October 1 or March 1 of the semester prior to student teaching.

## Student Teaching Application Process

1. Student Teaching applications are distributed at regularly held information meetings. Candidates for advancement to student teaching must attend a meeting. Meeting dates are posted outside the Single Subject Program office and are available on the website.
2. The application for Student Teaching is reviewed by the student's Single Subject major area. The Credential Center evaluates transcripts. The department then makes a recommendation to the University Single Subject Teacher Education Committee which takes final action. When approved by this committee, the student registers for student teaching. A priority system is used if sufficient funding is not available to allow all qualified applicants to enroll in student teaching.
3. A Certificate of Clearance must be on file in the Credential Center prior to the beginning of Student Teaching.

## Single Subject Internship

The Internship Program provides an opportunity for qualified Single Subject Credential Program candidates to work as teachers of record while completing their preservice preparation. Internship positions are offered by the district in consultation with the Single Subject Program. An internship is an entry-level paid teaching position in a regular public secondary school classroom. The Intern Credential holder is an employee of the school district on a contractual basis and is subject to all district employment policies. Interns are also program students, subject to program requirements.

Interns hold considerable responsibility as the classroom teacher of record responsible for designing, developing, and implementing curriculum and instruction for a full load of classes for the length of the school year. In addition, they are expected to be fully participating members of the school faculty, including service on school committees, supervision of student activities, and attendance at school and district meetings and inservices. Only candidates who are truly ready for the responsibility and heavy workload should become interns. Candidates should consult with their Credential Program Advisor and the University Coordinator as they explore the possibility of doing an internship.

To be approved for an internship, candidates must meet the following requirements: be in good standing in the program, be enrolled in at least one program course each semester, pass the CBEST, demonstrate subject matter competence (as determined by CTC subject matter requirements), have character clearance, demonstrate relevant successful experience working with students, and show proof of meeting the U.S. Constitution requirement. The internship offer is made by the school district, and must be in the candidate's teaching field. Interns cannot teach out of their field. Candidates must have the approval of the Credential Advisor in their subject area and the approval of the University Coordinator.

Upon completing all program requirements for advancement to student teaching, Interns use their teaching position as the "student teaching" experience. Interns must submit an application to student teach by the regular deadlines: October 1 for Spring and March 1 for Fall student teaching. Interns register for 15 units of Intern Student Teaching and 2 units of Student Teaching Seminar.

A University Supervisor observes the intern periodically during the term, conferences with the intern after site visits, and provides support as needed. The school provides a Site Support Teacher who functions as the Intern's on-site mentor. Interns are evaluated on program evaluation forms that are based on the California Teaching Performance Expectations.

Intern Application Guidelines and application materials are available in the Teacher Preparation Advising Center (ED1-67). Late applications may not be approved until the following semester. Candidates should contact the Single Subject Program office for a list of districts with which the program has intern contractual agreements.

## Professional Clear Credential

Beginning teachers have five years to obtain the Professional Clear Credential.

## Requirements

1. Hold the Preliminary Credential (see above).
2. Option 1: A Commission-accredited SB 2042 Professional Teacher Induction Program (if available in the district of employment).
3. Option 2: A Beginning Teacher Support and Assessment (BTSA) Program AND the four additional requirements of health education, teaching special populations, using technology, and teaching English learners.
4. Option 3: A fifth year of university study AND the four additional requirements of advanced course work in health education, teaching special populations, using technology, and teaching English learners. Advanced courses must be taken after issuance of the Preliminary Credential

## Petition Process

Appeals to program decisions or requests for policy waivers are made by filing a written appeal to the Single Subject Program Petition Committee. The Petition Committee reviews the written statement and supporting evidence and interviews the candidate, if necessary. After the review, the Committee renders its final decision. Examples of petitionable policies are: the minimum grade point average required for program admission, completing all program courses prior to student teaching, and course equivalencies. Consult the program office for items not listed here. Students follow university policy to appeal a course final grade.

## Single Subject Credential Program Majors

The subject matter programs listed below have been approved by the California Commission on Teacher Credentialing. Completion of a program as an undergraduate major (or as a returning graduate student) meets the subject matter competence requirement for the teaching credential. With careful planning, it may be possible for undergraduates to complete the professional preparation (education) courses concurrent with the major, with the exception of student teaching and seminar (which may be done the first semester after graduation). Subject matter competence may also be demonstrated by passing the appropriate CSET exam. Candidates should consult the Credential Advisor in their area of interest to develop an efficient program plan.

## Art Education (code 110)

Course requirements for demonstrating subject matter competence in Art are listed in the Art Department under Bachelor of Arts in Arts, Option in Art Education. Subject matter competence may be met through completion of 30 core units and 36 breadth and perspective units. Consult with the Single Subject Art Education Advisor for specific academic advisement and program information. The Art Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## English Education (code 120)

Course requirements for demonstrating subject matter competence in English are listed in the English Department under Bachelor of Arts in English, Option in English Education. Subject matter competence may be met through completion of 35 core units and 18 breadth and perspective units. Consult with the Single Subject English Education Advisor for specific academic advisement and program information.

## Languages Other Than English (LOTE) (French code 152, German code 153, Spanish code158, Japanese code 155, Latin code 156)

Course requirements for demonstrating subject matter competence in individual Languages Other Than English are listed under the Bachelor of Arts requirements in the appropriate department (French, German, Spanish: Romance, German and Russian Languages Dept.; Japanese: Asian and Asian American Studies Dept.; Latin: Comparative World Literature and Classics Dept.). In each instance, the Bachelor of Arts degree leads to subject matter competence in the language. Consult with the Single Subject Languages Other than English Education Advisor for specific academic advisement and program information. The LOTE Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Health Science (code 130)

Course requirements for demonstrating subject matter competence in Health Science are listed in the Health Science Department under Bachelor of Science in Health Science, Option in School Health Education. Subject matter competence may be met through completion of 30 lower division units and 46 upper division units. Consult with the Single Subject Health Science Single Subject Advisor for specific academic advisement and program information. The Health Science Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Home Economics Education (code 140)

Course requirements for demonstrating subject matter competence in Home Economics are listed in the Family and Consumer Sciences Department under Bachelor of Arts in Family and Consumer Sciences, Option in Communication. Subject matter competence may be met through completion of 35 lower division units and 38 upper division units. Consult with the Single Subject Family and Consumer Sciences Education Advisor for specific academic advisement and program information. The Home Economics Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Mathematics Education (code 165)

Course requirements for demonstrating subject matter competence in Mathematics are listed in the Mathematics and Statistics Department under Bachelor of Science in Mathematics, Option in Mathematics Education. Subject matter competence may be met through completion of 30 lower units and 36 upper division units. Consult with the Single Subject Mathematics Education Advisor for specific academic advisement and program information.

## Music Education (code 170)

Course requirements for demonstrating subject matter competence in Music are listed in the Music Department under Bachelor of Music. Subject matter competence may be met through completion of 85 units for both choral/vocal and instrumental options. Consult with the Single Subject Music Education Advisor for specific academic advisement and program information. The Music Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Physical Education (code 175)

Course requirements for demonstrating subject matter competence in Physical Education are listed in the Kinesiology Department under Bachelor of Arts in Kinesiology, Option in Elementary, Secondary, or Adapted Physical Education. Subject matter competence may be met through completion of 29 lower division units and 40 upper division units. Consult with the Single Subject Physical Education Advisor for specific academic advisement and program information. The Physical Education Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Science Education: <br> Biological Sciences (code 184) <br> Chemistry (code 181) <br> Geosciences (code 182) Physics (code 183)

Course requirements for demonstrating subject matter competence in Science are listed in the Science Education Department under Subject Matter Competence for the Single Subject Credential. Breadth and specialization units vary for the four science areas. Consult with the Single Subject Science Education Advisor for specific academic advisement and program information. The Science Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Social Science Education (code 185)

The Social Science subject matter program is currently under revision. Consult the Social Science program advisor for new program requirements.

Single Subject Education Courses (EDSS)

## UPPER DIVISION

## 300A-S. Introduction to Teaching (3)

Prerequisite: Advanced sophomore or junior standing. 45-hour directed fieldwork required.
Structure, organization, culture of schools; curriculum, instruction, assessment, classroom management; history and current status of the subject area; becoming a reflective professional. Submission of application to the Single Subject Credential Program (SSCP). "B" grade or better required for admission to the SSCP. First course in the professional education sequence of the Single Subject Credential Program. Students register for the section bearing the letter associated with their discipline from the list below.
(Lecture 3 hours) Letter grade only (A-F).
A. Art
C. Science
D. Health Science (F)
F. LOTE: French, German, Japanese, Spanish
G. English
H. Home Economics (F)
M. Mathematics
N. Music (S)
P. Physical Education
S. Social Science

450A. Curriculum and Methods in Teaching Art (3)
Prerequisite: EDSS 300A; admission to the Single Subject
Credential Program or permission of the Single Subject Credential Program University Coordinator.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching art to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching. Course fee may be required.
Fieldwork requirement. "B" grade or better required to advance to student teaching. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units.

450C. Curriculum and Methods in Teaching Science (3)
Prerequisite: EDSS 300C; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching science to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
(Lecture 2 hours, laboratory 1 hour + TBA) Fieldwork requirement. " $B$ " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450D. Curriculum and Methods in Teaching Health

 Science (3) SPrerequisite: EDSS 300D; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching health to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " B " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450F. Curriculum and Methods in Teaching Languages Other Than English (3)

Prerequisite: EDSS 300F; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching world languages to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " B " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450G. Curriculum and Methods in Teaching English (3)

Prerequisite: EDSS 300G; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching English to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " B " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450H. Curriculum and Methods in Teaching Home Economics (3) S

Prerequisite EDSS 300H; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching home economics to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450M. Curriculum and Methods in Teaching Mathematics (3)

Prerequisite: EDSS 300M; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching mathematics to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " $B$ " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.
450N. Curriculum and Methods in Teaching Music (3) F Prerequisite: EDSS 300N; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching music to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450P. Curriculum and Methods in Teaching Physical Education (3)

Prerequisite: EDSS 300P; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator; current standard first aid/CPR certification; completion of all skill performance proficiencies with an overall score of 3.5 . Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching physical education to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " $B$ " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 450S. Curriculum and Methods in Teaching Social Science (3)

Prerequisite: EDSS 300S; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching history and social science to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. " B " grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 472A,B,C. Student Teaching (5,5,5)

Corequisite: EDSS 473. Prerequisite: EDSS 450 (A, C, D, F, G, H, M, N, P, or S) and admission to the Single Subject Credential Program, or permission of the University Coordinator; submission of application to student teach by the deadline (October 1 for Spring term; March 1 for Summer and Fall terms); passage of CBEST; character and identification clearance (fingerprint clearance); completion of all program course work; demonstration of subject matter competence; portfolio assessment in selected programs; approval for advancement to student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program. Student teaching must be completed in the subject that will be authorized on the candidate's credential.

Student teaching in the candidate's subject for a minimum of five periods daily for the length of the placement school's semester (approximately 20 weeks). Teach three classes; two additional periods are for preparation, observation, and conferencing with the cooperating teacher and university supervisor. See Advancement to Student Teaching section of this catalog for requirements.
Credit/No Credit grading only ("A" or "B" quality work required for credit). May be repeated to a maximum of 10 units.

## 473A-S. Student Teaching Seminar (2)

Corequisite: EDSS 472. Prerequisite/Corequisite: Admission to the Single Subject Credential Program, or permission of the Single Subject Credential Program University Coordinator; advanced to student teaching.
Links issues of theory and practice within the context of the Teaching Performance Expectations during student teaching. Covers curriculum, instruction, assessment, classroom management, equity and access for all students. Looks forward to the induction phase of teaching and a career in the profession.
Letter grade only (A-F). May be repeated to a maximum of 4 units.

## A. Art

C. Science
D. Health Science
F. LOTE
G. English
H. Home Economics
M. Math
N. Music
P. Physical Education

## S. Social Science

*490. Curriculum Topics in Selected Academic Subjects (1-3)
Prerequisite: Consent of instructor.
Selected secondary curriculum topics. Academic subject to be covered will be announced in the Schedule Of Classes.
May be repeated to a maximum of 6 units with different topics; but only 6 units with a letter grade may be applied toward advanced degrees.

## 497. Independent Study (1-3)

Prerequisites: Consent of instructor and Single Subject Program Coordinator.
Independent study undertaken under the supervision of a faculty member.
May be repeated to a maximum of 3 units.

## GRADUATE LEVEL

## 572A,B,C. Intern Student Teaching $(5,5,5)$

Corequisite: EDSS 573. Prerequisite: Admission to the Single Subject Intern Program; offer of intern teaching position from a cooperating school district; submission of application to student teach by the deadline (October 1 for Spring term; March 1 for Summer and Fall terms); passage of CBEST; character and identification clearance (fingerprint clearance); completion of all program course work; demonstration of subject matter competence; portfolio assessment required in selected programs; approval for advancement to intern student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program.
Use of the intern's teaching position as student teaching. Must be done in the subject that is authorized on the intern's credential. Interns must be approved by the program for contract positions in cooperating school districts.
Credit/No Credit grading only ("A" or "B" quality work required for credit). May be repeated to a maximum of 10 units.

## 573. Internship Student Teaching Seminar

Corequisite: EDSS 572. Prerequisite/Corequisite: Admission to the Single Subject Credential Program, or permission of the Single Subject Credential Program University Coordinator; advanced to student teaching. Links issues of theory and practice within the context of the California Standards for the Teaching Profession.
Links issues of theory and practice within the context of the Teaching Performance Expectations during intern student teaching. Covers curriculum, instruction, assessment, classroom management, equity and access for all students. Looks forward to the induction phase of teaching and a career in the profession.
Letter grade only (A-F). May be repeated to a maximum of 4 units.
A. Art
C. Science
D. Health Science
F. LOTE
G. English
H. Home Economics
M. Math
N. Music
P. Physical Education
S. Social Science

## Secondary Education Courses (EDSE)

## UPPER DIVISION

## 435. United States Secondary Schools: Intercultural Education (3)

Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Critical reflection on multicultural education in a diverse society. Philosophy, history and sociology of education as fundamental to understanding contemporary secondary schools. Curriculum and student populations in the context of issues and controversies in education. Approved CLAD Certificate course (Domain 3).
Fifteen hour fieldwork requirement. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 436. Curriculum, Instruction, Assessment and Classroom Management (3)

Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Explores systematic instruction, theories of learning, curriculum development, teaching strategies, assessment and evaluation of student progress, classroom management and discipline, and establishing successful learning environments for all students.
Fifteen hour fieldwork requirement. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 457. Reading and Writing in the Secondary School (3)

Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Emphasis on reading and writing assessment and instruction; textbook selection; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; English Language Development; the reading needs of less prepared, English language, and accelerated learners; and issues of diversity and equity.
Fifteen hours of field work required. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## SOCIAL WORK College of Health and Human Services

## Director

John Oliver
Associate Director - Coordinator of Academic Programs
Christine Kleinpeter (562) 985-5655
Undergraduate Program Coordinator/Undergraduate Advisor Molly Ranney (562) 985-4684

## Admissions Coordinator

Candace M. Smith (562) 985-8180
Assistant Director - Coordinator of Field Education
Eileen Mayers Pasztor (562) 985-7775
Distance Education Coordinator
Jo Ann Regan (562) 985-8699
MSW / BASW 24 Hour Information Line
(562) 985-5654 / 985-5427

## Department Office

SSPA, Room 161
Department Telephone / FAX
(562) 985-4616 / 985-5514

## Faculty

## Professors

Paul Abels (Emeritus, 2000), Jan Black (Emerita, 1999), Lester Brown (Emeritus, 2004), Kenneth Chau (Emeritus, 1998), Catherine C. Goodman, Jean M. Granger (Emerita, 2002), Jillian Jimenez, Isaiah C. Lee (Emeritus, 1998), Rebecca Lopez, Julie O'Donnell, John Oliver, Marilyn Potts, Susan Rice (Emerita, 2005)

## Associate Professors

Chistine Kleinpeter, Jeffrey Koob, Eileen Mayers Pasztor, Janaki Santhiveeran, Phillip Tan,

## Assistant Professors

Yolanda Green, Brian Lam, Cheryl Lee, Nancy Meyer-Adams, Carrie Petrucci, Molly Ranney, Jo Ann Regan, Steve Wilson

## Assistant to the Director

Annie Radzicki, (562) 985-1878

## Full-time Field Faculty

Venetta Cambel, Tom Crowe, Michael Foster, Judy Green, Marian Klemek, Susan Lowe, Stacey Peyer, Joy Rubin, Susana Salas

Students desiring information should contact the numbers listed above. Program applications (BASW, MSW) are available on the department's website (www.csulb.edu/depts/socialwk/).

The mission of the profession of social work is to improve the quality of life for all people and to enhance human potential for full and productive participation in society, As such, social work has universal application to meet human needs arising from personal-societal interactions. Social Work, based on the history and philosophy of the profession, is committed to working with disenfranchised groups to alleviate poverty and oppression and to empower at risk including families and communities.

The social work method is a change-oriented process which helps individuals and social units of all sizes, structures and functions to discover, mobilize, develop and use their own and outside resources to change personal and social conditions which are barriers to meeting their needs. Change is accomplished through direct service, supervision, consultation, education, community organization, program development and evaluation, organizational and administrative advocacy, policy development, and social or political action.

Social workers are employed in varied settings, such as major societal institutions, health and mental health, child welfare, family services, government, corrections, aging services, recreation, and labor and industry. They work in many job classifications: direct service, community organization, supervision, consultation, management, administration, education and training, policy analysis and research.

The mission of the Department of Social Work is to prepare a diverse student population for Bachelor of Arts in Social Work (BASW) and Master in Social Work (MSW) degrees for professional social work practice. The graduates of these programs are able to:

- demonstrate competent and ethical practice with diverse and multicultural populations from a base that builds on
advances in social work knowledge, values and skills;
- enhance the well-being, and address the needs of diverse and multicultural populations across the life span;
- and advocate for social justice and social change and for elimination of oppression and discrimination.
Additionally, the mission is to provide BASW and MSW education which is broadly accessible so that graduates can serve the needs of local, state and international communities in which they practice. In order to accomplish the mission, the Department draws on a diverse faculty who provides quality social work education and contributes to the community, the profession and the advancement of professional knowledge. The Departmental curriculum assists BASW and MSW students to gain professional knowledge and values and develop an understanding of, and skill in social work methods and techniques required to undertake quality practice within the full spectrum of professional tasks. These expectations are accomplished with the student through the integration of the information and theories of the classroom with supervised practical experience in a variety of social agencies.

The BASW and MSW programs are accredited by the Council on Social Work Education (Council on Social Work Education, Commission on Accreditation, 1725 Duke Street, Alexandria, VA 22314, phone number: 703-683-8080.

Departmental, University and Council on Social Work Education regulations do not permit the substitution of life or work experience for curriculum requirements and expectations.

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Departmental, University and Council on Social Work Education regulations do not permit the substitution of life or work experience for curriculum requirements and expectations.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Social Work (code SW__BA01) (120 units)

The Department of Social Work offers, in conjunction with the general education requirements, a professional program leading to a Bachelor of Arts in Social Work (BASW). The goals of the BASW program are to prepare students for entry level, professional, generalist social work practice and for graduate social work education, including advanced standing. Students learn to practice as professional social workers with persons and groups representing the range of human diversity and with all size systems (individuals, families, groups, communities and institutions).

Social Work majors should consider taking courses as electives or for fulfillment of general education requirements in the ethnic studies, women's studies and gerontology programs in the Colleges of Health and Human Services and Liberal Arts. The Department can make recommendations concerning those courses which would be most useful to students interested in acquiring broader information closely allied to professional social work practice.

The field sequence has an integral role in the BASW curriculum providing an opportunity for the student to apply social work knowledge and practice skills in an agency based educationally focused field work placement. Students complete 450 hours of field placement (SW 495A/B) in their senior year for which they earn 14 academic units. Students complete 16 hours per week in an assigned agency placement. A variety of agencies in the surrounding communities are used, and the Department's field faculty select the most appropriate field placement site for students.

Students can contact the Department's admissions office for academic advising concerning the requirements for admission into the BASW program.

## Admission Under Impaction

The number of applicants to the Social Work program exceeds the number that can be accepted. For this reason, the Social Work Program has been designated as impacted by the California State University. Admission is on a competitive basis and is determined on the basis of meeting all of the following supplemental criteria. Applicants to the upperdivision major must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:

1. Applicants must have met requirements for admission to the university as a freshman or transfer student. Applicants must have completed the following prerequisite courses with a minimum grade point average of 2.50: BIOL 205, PSY 100, SOC 100, ANTH 120, and a course in elementary statistics such as HDEV 250, MATH 180, PSY 110, or SOC 250. Applicants must submit a supplemental application to the department by January 20 for the fall semester.
The application includes statements of biographical and
educational background and a description of community and/or social work experience. In addition, each applicant must submit 2 letters of reference, one academic and one professional. The number of applicants who can be admitted is limited by space availability. Eligible applicants will be selected for admission based on cumulative grade point average.
2. Submit by February 10 a Departmental application which includes statements of biographical and educational background, and a description of community and/or social work experience.
3. Submit two letters of reference (one academic and one professional).
4. Submit transcripts of all previous college work at CSULB and elsewhere. In determining eligibility of an applicant for admission to the program, the admission committee will consider:
A. All the information in the supplemental application;
B. All college/university academic work completed with emphasis on the prerequisite courses;
C. Documented exposure to the field of Social Work in a variety of settings such as work or volunteer experience;
D. An interview of the applicant (at the discretion of the admission committee)
E. Cumulative grade point average

## Admission Under Impaction for Continuing Students

Students who indicate a Social Work major when they enter as freshmen will be assigned a pre-social work major code. Acceptance into the pre-major by the university does not imply or assure subsequent acceptance into the major by the Department. Students who are not accepted into the major cannot continue as pre-social work majors.

## Admission Under Impaction for Transfer Students

Students must be eligible for admission to the university as transfer students and must apply for admission to the university no later than November 30 for admission the following fall. Students who are not admitted to the major will not be admitted to the university unless they have listed a second choice of major on the application form.

## Additional Requirements

To be allowed to continue in the major, students must complete the following during the first two semesters in the major courses:
A. Pass Abnormal Psychology
B. Fulfill the Graduation Writing Assessment Requirement (GWAR)

## Sequence of Required Social Work Courses

Full-time students will take the following sequence of courses starting with:

First Level (fall): SW 220, 221, 330, 350
Second Level (spring): SW 331, 340, 341, 351
Third Level (fall): SW 440, 442, 495A
Fourth Level (spring): SW 441, 465, 495B
Parttime students will take the following sequence of courses
First Level (fall): SW 220, 221
Second Level (spring): SW 330, 350
Third Level (fall): SW 331, 351

Fourth Level (spring): SW 340, 341
Fifth Level (fall): SW 440, 442, 495A
Sixth Level (Spring): SW 441, 465, 495B
All Social Work courses must be completed with a grade no lower than a " $C$ " in classroom courses or a "CR" for practicum or field experience. If a student earns a grade lower than a " C " in a classroom course or a "NC" in a practicum or field experience course, the student must repeat the course and earn an acceptable grade before advancing to the next level of courses.

## CaISWEC BASW Program

California Social Work Education Center (CaISWEC) is a unique partnership between social work education and the publicly supported child welfare agencies. A goal of the CaISWEC program is to recruit and prepare a diverse group of social workers for careers in public child welfare. CaISWEC provides financial support to BASW students in exchange for a commitment to work in a public child welfare agency after graduation. The intent of the program is to strengthen and enhance the quality of practice by professionally trained and educated public child welfare social workers.

The IV-E stipends provide support for full-time students enrolled in the BASW program. A CaISWEC reimbursement program is available for part-time students currently employed with the County Social Services department that provides child-welfare or assistance benefits eligibility functions. All part-time applicants must provide a letter of support from their agency administrator/director. Financial supports for awarded part-time students will include actual cost of full tuition and fees, book costs as well as a travel allowance.

## Application Process

Students must first be admitted into the BASW program. Students are required to submit a CaISWEC application. The application is supplemented with various questions designed to ascertain their interest and level of commitment to a career in public child welfare. Once accepted into the program students must undergo pre-screening for county employment including fingerprinting and participation in the criminal clearance process. The student is required to sign a contract to secure full-time employment in a public child welfare agency after graduation.

Priority is given to applicants representing diverse population groups currently served by child welfare agencies in California. Fluency in a high demand language is also given priority. Years of service and other child welfare experience also weigh significantly into the selection process. Students in the program must be U.S. citizens or have a permanent visa.

An Awards Committee, made up of representatives of the CSULB Department of Social Work and representatives of public child welfare agencies from counties surrounding the University, will review and finalize selection of candidates to whom the award will be offered.

## Requirements

Students participating in the program must meet all the following criteria:

1. Successful BASW admission;
2. Maintain a C (2.0) average;
3. Attendance at mandatory seminars/trainings on specialized topics;
4. Have a valid driver's license and secure use of a car as required for fieldwork;
5. Undergo pre-screening for county employment;
6. Complete required health screenings;
7. Fulfill work commitment upon graduation; Students participating in the full time program sign a contract to render two years of continuous and satisfactory full-time employment in a public child welfare agency. Students in the part time program sign a contract to render one year of full time employment in their home agency for each year of IV-E education support;
8. Students must reimburse CaISWEC if they are unable to successfully complete any of the program requirements.

## GRADUATE PROGRAMS

## Master of Social Work (code SW__MW01)

The Department of Social Work offers a professional program culminating in a Master's degree in Social Work. Our goal is to prepare students to enter professional, multicultural social work practice. Students learn to practice as professional social workers with persons and groups representing the range of human diversity and with all size systems (individuals, families, groups, communities and institutions). In addition, students are prepared for advanced, specialized practice in concentrations representing Children, Youth and Families or Older Adults and Families.

The MSW program emphasizes ecological and systems perspectives which focus on the fit and interactions of a person or system in relation to the various environments likely to be encountered. Within these perspectives, knowledge, values, and skills are used in a change-oriented process within a multicultural context to help individuals and social systems achieve improved quality of life and social participation, including advocacy for just institutions and equitable access to opportunities and resources.

In addition to the mission noted above, the MSW program provides an educational experience which does the following:

1. Provides knowledge of and experience with ethnic diversity, teaches skill in ethnic-sensitive practice, and provides motivation and skill to combat oppressive policies and discrimination. As such, the program actively offers opportunity for graduate education to students of various ethnic, racial, and socio-economic backgrounds who have life experience in bridging cultural gaps;
2. Contributes to the quality of social services delivered in the adjacent community (Los Angeles, Ventura, San Bernardino, Riverside, and Orange Counties) by providing an opportunity for advanced education to students who are already employed in the social services. These students may concurrently maintain employment within the social services and participate in the program to develop advanced skills in their area. Quality of services is also enhanced through close collaboration between the Department of Social Work and community service agencies offering fieldwork experiences and through the labor force of MSW's educated in a program with multicultural emphasis and specializations which reflect the needs of our adjacent community as well as the needs of urban communities nationally;
3. Prepares social workers for leadership and specialized practice with a specific population group. The program maintains high standards and prepares social workers for the depth and complexity of generalist Social Work practice while being able to practice in a chosen area of concentration. Foundation knowledge, values, and skills required for intervention in a multicultural context are applied and developed through work within the area of specialization. Specialization consists of emphasis on a stage of the life cycle: either children, youth, and families or older adults and families. Specialized education is offered concurrently with basic foundation knowledge from entry into the program. Students are expected to have experience in the social services upon which to draw after entry into the program;
4. Teaches analytic skill necessary for reflective and autonomous practice and necessary for contribution to the advancement of knowledge. Social workers should be capable of integrating knowledge and practice, should be able to apply grounded, scientific principles to practice, should be capable of conceptualizing practice principles on the basis of their experience, and therefore should be able to contribute to the development of new knowledge;
5. Educates students to the values and ethics of the profession. The social worker is expected to be committed to the value that people should have equal access to resources, services, and opportunities. Social workers should be advocates of humane and responsive service, have regard for the worth and dignity of the individual, and conduct themselves in accordance with the professional code of ethics.

## Concentrations

The Master of Social Work degree offers opportunity for study in two areas of concentration: Older Adults and Families or Children, Youth and Families. The concentrations reflect two of the major areas of social concern and programs in our society. Child neglect and abuse, single parents, drugs and gangs illustrate the tremendous need for service to children and their families. Interestingly, the other end of the age range also reflects neglect and a need for service. The aged, the fastest growing population segment in our society, often lead healthy productive lives; however, many at risk individuals and their families will require services. For example, older adults in the uppermost age brackets are often frail and, therefore, may have a greater need for social services, income maintenance, housing, health and personal care services. The probability that older women will live longer than men and experience differences in social and economic conditions places many older adults at risk.

With both groups, the family is often the mediating source, and the social worker needs to be able to work with the family as well. Both groups are represented by large numbers in Southern California, and programs are developing to serve the need. Professional social workers have a vital part to play in ensuring that these services are adequate and sound.

## The Children, Youth and Families Concentration (CYF)

The Children, Youth and Families (CYF) concentration prepares students for practice in a variety of settings. Students are exposed to the full range of practice skills and have one year of direct practice experience and a second year of more intense direct practice or administrative practice experience.

Field work placements are available in a variety of agencies in the surrounding five-county area, including public, private and non-profit agencies. Typical settings include child welfare/protective services, health care, mental health, public social services, schools, community-based outpatient agencies, corrections/juvenile justice, residential treatment, programs for persons with developmental disabilities, substance abuse treatment and other specialized programs.

## Required Courses for CYF Concentration

SW 560 Direct Intervention with Individuals and Families:
Focus on CYF
SW 660 Direct Intervention with Groups and Families:
Focus on CYF
SW 670 Social Work Administration
SW 681 Advanced Policy and Political Action: CYF
SW 596 and SW 680 Field work placement in two different
CYF agencies
SW 698/699 Master's Thesis
Two electives (any scheduled electives)

## Distance Education

The Children, Youth and Families Concentration is also offered at off-campus locations throughout the state. Courses are taught using face-to-face instruction, as well as interactive television and web-based instructional support. The distance education MSW is offered using a 3-year, part-time model. Students attend courses on Saturdays and complete fieldwork requirements during the second and third years of the program.

## Distance Education Model

## Fall-Term 1

SW 505 Oppressed Groups
SW 503A Human Behavior and Environment in Multicultural Perspectives: Focus on Prenatal Through Adolescence

## Spring-Term 2

SW 503B Human Behavior and Environment in Multicultural Perspectives: Focus on Young Adulthood Through Old Age SW 592 Community Projects I

## Summer-Term 3

SW 594A Research Methods I
SW 693 Community Projects II

## Fall-Term 4

SW 600 Elective
SW 596A Field Instruction I
SW 500 Foundations of Generalist Social Work Practice

## Spring-Term 5

SW 594B Research Methods II
SW 596B Field Instruction II
SW 560 Direct Intervention; Focus on CYF

## Summer-Term 6

SW 600 Elective
SW 698A Thesis or Project I

## Fall-Term 7

SW 660 Direct Intervention with Groups
SW 680A Field Instruction III
SW 699A Thesis or Project II

## Spring-Term 8

SW 681 Advanced Policy
SW 680B Field Instruction IV
SW 670 Social Work Administration
The Older Adults and Families Concentration (OAF)
The Older Adults and Families (OAF) concentration prepares students for practice in the delivery of social services to older adults and their families, in the planning and evaluation of social services and in administration of services and policy development. Students experience one year of placement in a direct practice setting and may select either a direct practice or administrative practice setting for their second year.

Field work placements are available in a variety of agencies in the surrounding five-county area including public and private nonprofit agencies. Typical settings include health care, adult protective services, mental health, community-based outpatient agencies, rehabilitation, programs for the developmentally disabled, substance abuse treatment, senior programs and other specialty services.

## Required Courses for OAF Concentration

SW 561 Direct Intervention with Individuals and Families: Focus on Older Adults
SW 661 Direct Intervention with Groups: Focus on Older Adults SW 670 Social Work Administration
SW 682 Advanced Policy Seminar: Older Adults and Families SW 596 and SW 680 Field work placement in two different

Aging and Family agencies
SW 698/699 Master's Thesis or Project
Two electives (any scheduled electives)

## Admission to MSW Advanced Standing Program

Students who have a 3.0 GPA and a BSW degree are conditionally admitted to the MSW Advanced Standing Program. Upon successful completion of an intensive Summer Bridge Module (see below), the core content from the $1^{\text {st }}$ year of the traditional MSW program (or 30 units) will be waived and students will be Advanced to Candidacy to begin year two of the traditional MSW program curriculum.

## Admissions Criteria for Advanced Standing

In addition to the Department's basic admissions application procedures as well as University application procedures, the following are requirements for all Advanced Standing applicants:

- Graduation, within the last 5 years, from an undergraduate social work program that is accredited by the Council on Social Work Education at the time of the applicant's graduation.
- Applicants must have a cumulative 3.0 (on a 4.0 scale) grade point average for all undergraduate work.
- Provisional acceptance for persons currently enrolled in BASW/BSW programs is contingent on the successful completion of that program plus submission of a reference letter from an undergraduate's current field instructor, as well as a reference letter from the applicant's program advisor or a professor who taught one of the required courses during the senior year (two of three required references).
- All acceptances to the Advanced Standing Program are conditional until University Enrollment Services admits a student and all Summer Bridge modules have been successfully completed.


## Admission to MSW Program

Students interested in full and part-time study are admitted to the MSW program for the fall or summer semester each year. Prospective students should apply directly to the Department of Social Work as well as to the University. International students must also apply to the Center for International Education (562) 985-5476. The Center begins accepting applications for the following fall term on November 1. Review of applications by the department begins the first week of September.

## Department Deadlines

The Advanced Standing and Summer Block program application dealine is March 1 for the fall semester. The fulltime and part-time program application deadline is the second Friday in April for the fall semester. The University application deadline for graduate programs is the second Friday in April for the fall semester.

## Admission Requirements

To be admitted on a full or part-time basis to the Master of Social Work program, applicants must meet the following criteria:

1. Hold a Bachelor's degree from a university or college of recognized standing, that is grounded in liberal arts, and be eligible for admission to graduate standing at CSULB;
2. Demonstrate satisfactory academic achievement as evidenced by a cumulative undergraduate GPA of 2.50 or above on a 4.0 scale for the last 60 units of course work attempted and/or completed toward degree requirements.
3. Completion of a prerequisite course in: 1) human biology or human anatomy or human physiology, 2) elementary statistics
4. Completion of the Department's application which requires inclusion of:

- three reference letters (academic and professional)
- a summary of volunteer experience, work experience, and educational background
- a personal statement
- an official copy of all college/university transcripts

Applications that do not contain the above materials are considered to be incomplete, and will not be assessed for admissions decisions. Moreover, applications must be fully packaged by the applicant.
4. Preadmission interviews may be required by the Program faculty.

## Field Work

The field work sequence has an integral role in the MSW curriculum. The experience offers an opportunity for students to integrate and apply theoretical knowledge and social work practice and intervention skills in a community agency setting under the supervision of a qualified field instructor. A variety of agencies within the surrounding counties are utilized, reflecting the diverse settings in which social workers are employed. University field faculty select the most appropriate field placement site for students.

Each student has two field work placements and concurrent enrollment in practice courses during the course of study.

Each placement involves 500 hours of field work in a community agency setting and attendance and participation in a field work seminar that meets weekly on campus. The field work sequence encompasses a total of 1000 hours, for which 12 units of academic credit are given. Academic year and summer block models of field work placement are available. The academic year schedule, begins in September and continues through mid May. Students take concurrent coursework and a field seminar while enrolled in field work and are currently in field work two days (16 hours) per week. This must include either two 8-hour week days or one 8-hour weekday and two 4-hour blocks. Some agencies include evening hours. The summer block model of field work occurs during the late spring and summer months, with students completing 36 hours per week in field work while concurrently taking coursework and a field seminar on the remaining work day.

Students who are employed in social service agencies may request that their agency be evaluated as a site for the second year field work only. The agency must be able to meet all criteria established by the Department of Social Work to insure the educational focus of field work and provide a significantly different experience. Evaluation of field work sites and approval to utilize an agency of employment as a field work site will be completed by the field work faculty.

The Department of Social Work will reject an applicant or disqualify an enrolled student whose record of academic achievement or performance in field instruction does not meet the minimum standards of the profession.

## Waiver of the First Year Core: Common Body of Knowledge

The Master's in Social Work degree is based upon a common body of knowledge. Students with a Bachelor's degree in social work from this University, or from other CSWE accredited undergraduate social work programs, within the last five years, will have met much of the First Year Core requirements. Students' transcripts are reviewed for completion of the necessary coursework for mastery of the common body of knowledge. A 3.0 GPA in the undergraduate social work courses, with no grades below a C, and 2.5 overall GPA are required to meet the criteria.

Waivers of the First Year Core (30 units) are based upon previous educational background at the undergraduate level and upon completion of summer bridge courses and field placement in this social work department. Summer bridge courses will include modules from each of the program sequences: research, practice, human behavior and social policy. Summer bridge field work placement will include 160 hours (16 hours per week). Students, therefore, have a provisional admission to the department until they have successfully completed the summer program. When they successfully complete the summer bridge courses and field placement, they receive the Waiver of the First Year Core and enter the second year of the MSW program in the Fall semester. Students are immediately Advanced to Candidacy upon receiving a Waiver of the First Year Core. The courses that are waived as the First Year Core are: SW 500, 503A, $505,594 \mathrm{~B}, 596 \mathrm{~A}, 560$ or $561,592,594 \mathrm{~A}, 596 \mathrm{~B}$ and 503B.

Students, for whom the First Year Core is waived, are not eligible for the Geriatric Social Work Education Consortium, Inter-University Consortium or CaISWEC programs.

## Geriatric Social Work Education Consortium

The John A. Hartford Foundation awarded a 3 year grant to support the development of geriatric field practicum sites. The grant funded an alliance of all of the social work graduate schools and four geriatric service providers in the greater Los Angeles area. This consortium was created and sponsored by the Partners in Care Foundation with the goal of enhancing the quality of life for the elderly.

The program continues with new funding and stipends are provided to MSW students in the Older Adults and Families concentration. Information regarding this program is presented to students in the field orientation and applications are made available.

## Inter-University Consortium

The IUC (Inter-University Consortium) is one of the specialized training programs in public child welfare available in the MSW program. It is a collaborative partnership that includes the Los Angeles County Department of Children and Family Services (DCFS) and the Paramount Unified School District (PUSD). The IUC program has been designed to give students exposure to public child welfare practice through assignment of DCFS cases, as well as experience working with groups of children in the school setting.

Title IV-E stipends are available for one (1) year for students enrolled in the full-time 2 year or part-time, other than summer block, model of the MSW program. Students may apply for either the first or second year of field placement. Students accepted into the program must:

- Be enrolled in the MSW program
- Be enrolled in the Children, Youth and Families concentration
- Complete one year of fieldwork in the IUC/DCFS placement Complete the designated specialty child welfare curriculum which includes:
- SW 643 - Social Work Practice within Child Welfare Services
- SW 698B/699A - MSW Thesis or Project (IUC students' theses must focus on a child welfare problem or issue)
- Complete designated specialized training seminars

Students participating in the program must complete prescreening for county employment including fingerprinting and DCFS physical and psychological examinations. Students sign a contract committing themselves to one year of full-time paid employment following graduation with Los Angeles County Department of Children and Family Services. Students are responsible for payback of the stipend if they are unable to successfully complete any of the requirements of the program.

## CaISWEC MSW Program

California Social Work Education Center (CaISWEC) is a unique partnership between social work education and the publicly supported child welfare structure. The mission and goals of the Cal SWEC program are to reprofessionalize public child welfare. CaISWEC provides financial support to MSW students in exchange for a commitment to work in a public child welfare agency for a minimum of one year for every year of support received. The intent of the program is to strengthen and enhance the quality of practice by professionally trained and educated public child welfare social workers.

Students must first be admitted into the Children Youth and Family Concentration of the MSW program, after which they submit an application and answer various questions designed to ascertain their interest and level of commitment to a career in public child welfare.

Priority is given to applicants representing diverse population groups currently served by child welfare agencies in California. Fluency in a high demand language is also given priority. Years of service and other child welfare experience also weighs significantly into the selection process. Students in the program must be U.S. citizens or have a permanent visa.

An Awards Committee, made up of representatives of the CSULB Department of Social Work and representatives of public child welfare agencies from counties surrounding the University, will finalize selection of candidates to whom the award will be offered. Inter-University consortium students are not eligible for the CaISWEC program.

## Full-time CaISWEC Program

The IV-E stipends provide for two (2) years of support for students enrolled in the full- time 2 year model of the MSW program. The student signs a contract to secure full-time employment in a public child welfare agency for two (2) years (one year of employment for each year of support) but is expected to remain in public child welfare employment for longer than this minimum period.

Once accepted into the program students must undergo pre-screening for county employment including fingerprinting and participation in the criminal clearance process.

## Part-time CaISWEC Program

Students eligible to apply for the part-time CalSWEC reimbursement program must be employees of the State or County Social Services department that provides the child welfare or assistance benefits eligibility functions. All parttime applicants must provide a letter of support from their agency administrator/director. Financial supports for admitted students will include: full tuition and fees, book costs and a travel allowance.

Students participating in the program sign a contract to render one year of continuous and satisfactory full-time employment in their home public child welfare agency for each year of IV-E education support.

## Requirements

Students participating in the program must meet all of the following criteria:

- Enroll in and successfully complete the Children, Youth and Families Concentration;
- Maintain a "B" (3.0) average;
- Successfully complete and receive a grade of credit in 1 year of fieldwork in a public child welfare agency;
- Successfully complete and receive a grade of credit in 1 year of fieldwork in a public agency (different from the first year) or a non-profit agency serving IV-E eligible children (in this case IV-E refers to clients who are TANF eligible).
- Have a valid drivers license, current automobile insurance, and secure the use of a car as required by fieldwork.
- Complete required specialized Child Welfare Curriculum including but not limited to:
- SW 643 - Social Work Practice within Child Welfare Services;
- SW 698/699 - Masters Thesis or Project with a focus on Child Welfare population, issue area or service delivery systems;
- Attendance at specialized training seminars;
- Students must reimburse CalSWEC if they are unable to successfully complete any of the program requirements. CALSWEC students are not eligible for the PPS credential.


## Pupil Personnel Services Credential with Specialization in School Social Work and Child Welfare and Attendance (code 803)

The California Commission on Teacher Credentialing issues the Pupil Personnel Services (PPS) Credential. The Department of Social Work, College of Health and Human Services, offers the combined School Social Work and Child Welfare and Attendance Specializations of the PPS Credential within the context of the Master of Social Work (MSW) degree.

The PPS Credential in School Social Work and Child Welfare and Attendance authorizes the holder to be employed in the State of California as a School Social Worker and/or a Child Welfare and Attendance Specialist. The credential covers pre-kindergarten through 12th grade service in public and other schools requiring the credential. Individuals with the credential in School Social Work and Child Welfare Attendance are pupil advocates, and provide prevention and intervention strategies that remove barriers to learning. These professionals, in partnership with other educators parents and the community maintain high expectations for all pupils, facilitate pupils reaching their highest potential, foster optimum teaching and learning conditions, and prevent school failure. School Social Work is defined as the application of social work principals and objectives to help fulfill the major purpose of the education system: to provide a setting for teaching and learning in which all children can prepare themselves for the world they now live in, and the world they will face in the future.

Child Welfare and Attendance specialists provide assessment and intervention around issues of attendance for pupils.

## Requirements

1. Successful completion of all of the requirements for the 60 unit Master of Social Work (MSW) degree within the Children, Youth and Families Concentration. Required coursework will be completed in the following sequence areas: Field Work, Human Behavior and the Social Environment, Social Work Policy, Social Work Practice, and Social Work Research;
2. Completion of SW 665, School Social Work as one of the required electives within the 60 unit MSW program, taken either prior to or concurrently with school social work field work placement;
3. Successful completion of required School Social Work Seminar series presenting specialized topics;
4. Demonstrated knowledge in the following areas of pupil personnel services, as defined in the Commission on Teacher Credentialing Standards: Knowledge of techniques for facilitating individual growth and development to achieve academic success; Knowledge of the wide variety of socio-cultural influences that affect pupils in a school setting; Knowledge of human assessment; Knowledge of problem prevention and early intervention; Knowledge of consultation services; Knowledge of learning theory and psychological education; Knowledge of coordination and development of services; Knowledge of legal enablements
and constraints; Knowledge of referral and utilization of services; Knowledge of human assessment as direct services to pupils, Knowledge of social interventions; Knowledge of consultation coordination and development of services; Knowledge of referral, utilization, involvement and use of community resources; Knowledge of social research and services based on research; Knowledge of the code of professional ethics; Knowledge of attendance laws and the rights of minors; and Knowledge of skills using attendance laws and assessment skills.
5. Successful completion of 600 clock hours of field practice in the second year of field, demonstrating all of the required skills and knowledge areas, in an approved PPS site, under the supervision of an experienced MSW level practitioner and an individual who holds a PPS Credential. Supervised hours of field practice will include at least 100 hours in each of two settings (elementary, middle and/or high school), and experience in service delivery with populations representing ethnic diversity and will cover both school social work and child welfare and attendance competencies and standards.
6. Completion of required Application and forms from California Teachers Credentialing Division, including fingerprints, Certificate of Clearance and Character Reference form;
7. Completion of required health screenings;
8. Successful performance on C-BEST Examination;
9. Certification of program completion and demonstrated competence by the PPS Program Coordinator, Department of Social Work. The student may be required to complete additional course work, field work, or demonstrate specific competencies before approval.
10. Completion of all required forms and procedures of Credential Processing Center, CSULB.

## Advancement to Candidacy

A conditionally classified or fully classified student must maintain a minimum GPA of 3.0 on all courses taken subsequent to admission. In addition, a GPA of 3.0 must be maintained in all courses required for the degree. A student will be eligible for advancement to candidacy for the degree after successfully completing 6 units of graduate level courses in Social Work.

All students must demonstrate competency in writing skills. Students must attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) in the first semester of residence in the MSW program or score at least a " 4 " on the GRE Writing Assessment. Either the GWAR or the GRE Writing Assessment must be passed to advance to candidacy.

## Course Load

The California State University, Long Beach requirement for full-time status as a graduate student is 9 weighted units. Part-time students pursuing the M.S.W. degree must take at least 4 semesters of at least 3 courses or 9 units. Students who wish to complete the M.S.W. degree in 2 years must take an overload of 6 units for 4 semesters or 15 units a semester.

## Requirements

The Master of Social Work program requires the completion of 60 semester units. Fifty-four units of required courses and 6 units of scheduled departmental electives
must be taken to complete a concentration. In the CYF concentration, 57 units of required courses and 3 units of scheduled departmental electives must be taken by IUC, Cal SWEC and PPS credential students.

The program is taken in one of the four following sequences.

## Plan A: (two years)

Term 1 - SW 500, 503A, 505, 594A, 596A (Fall)
Term 2 - SW 560 or 561, 592, 594B, 596B, 503B (Spring)
Term 3 - SW 660 or 661, 680A, 693, 698A, 500/600 level elective; (Fall)
Term 4 - SW 670, 680B, 681 or 682, 699A, 500/600 level elective; (Spring)

## Plan B: (three years)

Term 1 - SW 503A, 505, 500/600 level elective; (Fall)
Term 2 - SW 503B, 592; (Spring)
Term 3 - SW 693, 594A, (Summer)
Term 4 - SW 596A, 500; (Fall)
Term 5 - SW 596B, 560 or 561, 594B (Spring)
Term 6 - SW 698A, 500/600 level elective; (Summer)
Term 7 - SW 680A, 660 or 661, 699A; (Fall)
Term 8 - SW 680B, 670, 681 or 682. (Spring)
Plan C: (Summer Block Model)
Term 1 (Summer Session) — SW 503A, 505;
Term 2 - SW 594A, 500/600 level elective (Fall)
Term 3 - SW 503B, 592; (Spring)
Term 4 (Summer Session) - SW 500, 560 or 561, 596C, 596D, 698B;
Term 5 - SW 693, 500/600 level elective; (Fall)
Term 6 - SW 681 or 682, 594B (Spring)
Term 7 (Summer Session) - SW 660 or 661, 670, 680C, 680D, 699B.

## Plan D: Advanced Standing

Summer Bridge Module
Field Work - 16 hours per week for 10 weeks plus 2 hours of seminar per week.
Field Work Internship - 160 hours total.
Human Behavior - 32 hours
Social Policy - 16 hours
Research - 40 hours
Practice - 48 hours
Technology - 16 hours

## Second Year Coursework

Fall
SW 660/661 - Practice Individuals/Families
SW 680A - Field Seminar III
SW 693 - Community Projects II
SW 698A - Thesis or Project I
SW 500/600 - Social Work Elective
Spring
SW 670 - Administrative Practice
SW 680B - Field Seminar IV
SW 682 - Advanced Policy
SW 699A - Thesis or Project II
SW 500/600 - Social Work Elective
For other requirements of Master's degree programs, see the University's graduate degree requirements.

## Courses (S W)

## LOWER DIVISION

## 220. Introduction to Social Welfare (3)

Prerequisite: Completion of GE foundation requirements. Offers an understanding of social welfare, and the knowledge, values, and skills essential to social work practice. It examines historical and philosophical perspectives including cultural, economic, political, and social forces.

## 221. Introduction to Social Welfare Practicum (3)

Prerequisite: Consent of instructor; Corequisite: SW 220.
Lecture classes and visiting and observing approved social service agencies and allied activities.
Open to social work majors only. Credit/No Credit grading only.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 330. Human Behavior and Social Environment: Birth through Adolescence (3)

Prerequisites: Completion of GE Foundation requirements. Multi-dimensional development from conception through adolescence is explored by examining expectations, resources and barriers presented by mainstream society. Influences of culture, ethnicity, family systems, socioeconomic status, sexism and racism are assessed for their impact on healthy child development. Letter grade only (A-F).

## 331. Human Behavior and Social Environment: Young Adulthood through Old Age (3)

Prerequisites: Completion of GE Foundation requirements.
Multi-dimensional development in adulthood is explored by examining expectations, resources and barriers presented by mainstream society. Influences of culture, ethnicity, family systems, socioeconomic status, sexism and racism are assessed for their impact on healthy adult development.
Letter grade only (A-F).

## 340. Generalist Social Work Practice (3)

Prerequisites: SW 220, 221, 330, 350. Concurrent enrollment in SW 341.
Social work practice as a helping process with all size systems. Social work knowledge, ethics, values, principles, professional relationships, interviewing and beginning assessment and intervention phases are examined. The activities of the social worker in resolution of psychosocial problems.
Open to social work majors only. Letter grade only (A-F).
341. Social Work Practicum (3)

Corequisite: SW 331, 340, and 351. Minimum of 8 hours weekly experience in approved social service or allied setting.
Social work field practice including interviewing, assessment, and intervention activities.

Credit/No Credit grading only. Open to social work majors only. Not open for credit to students with credit in SW 340A.

## 350. Social Policy: Law and Court Decisions (3)

Prerequisite: Completion of GE Foundation requirements.
Social policy as defined in legislation and judicial decisions affecting the rights of individual families, minorities, and the general welfare.
Letter grade only (A-F).
351. Social Policy: Formulation and Analysis (3)

Prerequisites: Completion of GE Foundation requirements.
Policy formulation and analysis related to social welfare institutions and major social welfare policies and programs. Current values and issues in social welfare policy.
Letter grade only (A-F).

## 406A. Applications of Social Work with Older Adults (3)

Prerequisite: Consent of instructor and upper division status.
Provides an intergenerational service learning experience.
Students learn about the bio-psycho-social dimensions of the aging process and group work. This knowledge is applied by students when they co-facilitate weekly discussion support groups with older adults in independent living communities.
Letter grade only (A-F).

## 406B. Applications of Social Work with Older Adults (3)

Prerequisite: Consent of instructor and upper division status.
Different topics from 406A, can be a continuation of SW 406A or may be taken separately. Advanced group work with older adults. Students learn about the bio-psocho-social dimensions of the aging process. This knowledge is applied by students when they co-facilitate weekly discussion support groups with older adults in independent living communities.
Letter grade only (A-F).

## 423. Child Abuse and Prevention (3)

Examination of child abuse as a social problem; its history and causal factors, including changing family patterns.
Intervention practices, including identification and investigation, social services and court interventions are reviewed. Policy implications will be examined.
Letter grade only (A-F). Same course as SOC 423.

## 440. Generalist Social Work Practice with Groups (3)

Prerequisites: SW 331, 340, 341. Concurrent enrollment in SW 495A.
Adaptation of generalist frameworks of social work practice to generalist group approaches. Analysis of dynamics, theories, and principles underlying group practice. Programs, practice techniques, and roles involved with groups.
Open to social work majors only. Letter grade only (A-F).

## 441. Generalist Social Work Practice with Communities

 and Institutions (3)Prerequisites: SW 331, 340, 341, 351. Concurrent enrollment in 495B.
Adaptation of generalist frameworks of social work practice to generalist approaches to community and institutional applications. Analysis of theories and principles underlying community practice. Adaptation of theories and activities to organizational contexts. Techniques and activities applicable to communities and neighborhoods.
Open to social work majors only. Letter grade only (A-F).

## 442. Generalist Social Work Practice with Individuals and

 Families (3)Prerequisites: SW 331, 340, 341. Concurrent enrollment in SW 495A.
Adaptation of generalist frameworks of social work practice to generalist practice with individuals and families. Theories, techniques, activities, and role of social workers; differential approaches to study, assessment, intervention, and helping processes.
Open to social work majors only. Letter grade only (A-F).

## 465. Research Methods in Social Work (3)

Prerequisites: SW 440 and 442 and one course in elementary statistics. Concurrent enrollment in SW 441, 465 and 495B.
Introduction to research methods in social work with an emphasis on the evaluation of social work interventions and agency programs.
Open to social work majors only. Letter grade only (A-F).
469./569. Disability, Culture and Society: Issues and Intervention (3)
Prerequisite: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as GERN 469/569 and REC 469/569 Letter grade only (A-F).
480. Social Work with Families and Children (3)

Contemporary social welfare programs designed to meet the physical, psychological, and social needs of families and children. Basic principles and methods of providing services, including the role of the social worker.
Letter grade only (A-F).

## 481. Immigration Issues in Social Work (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey major issues regarding immigrants in California. Origins of current immigrant flow and policies which facilitate entry into the U.S. Designed to assist social welfare services by examining the unique immigrant client experience and barriers they encounter accessing services.
Letter grade only (A-F).

## 484. International Perspectives in Social Welfare for the Elderly (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Critical analysis of aging problems in developed and developing countries, discussing demographic, socioeconomic and humanitarian issues from a social welfare perspective. Discussion of medical, financial and social service programs for the elderly to meet these needs in various countries.
Letter grade only (A-F).

## 490. Special Topics in Social Work (1-4)

Topics of special interest in social work for intensive study.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 4 units with different topics. Open to social work majors only. Letter grade only (A-F).
491. Non-Violent Conflict Resolution: In Your Life, On the Job, With Your Clients and Around the Planet (3)
Designed to help the social work student examine conflict and violence, their own and others' responses to conflict situations on the intrapersonal, interpersonal and community levels, and to learn to deal with conflict in a productive, non-violent manner. Letter grade only (A-F).

## 495A. Field Experience in Social Work (7)

Prerequisites: SW 330, 331, 340, 341, 350, 351. Concurrent enrollment in SW 440 and SW 442.
Open to senior social work majors only. First of two semesters with supervised practice in social work agency.
Two hours weekly field seminar on campus and 16 hours in internship. Credit/No Credit grading only.

## 495B. Field Experience in Social Work (7)

Prerequisites: SW 442 and 495A. Concurrent enrollment in two of the following: SW 440, 441, and 465.
Open to senior social work majors only. Second of two semesters with supervised practice in social work agency.
Two hours weekly field seminar on campus and 16 hours in internship. Credit/No Credit grading only.
499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
Open to social work majors only. Letter grade only (A-F).

## GRADUATE LEVEL

## 500. Foundations for Generalist and Multicultural Social

 Work Practice (3)Corequisites: SW 596A or 596C.
Provides knowledge and skills for generalist, multicultural practice with all size systems, from ecological perspective. Implementation of principles, ethics, values, professional relationships, interviewing/communication skills and tasks of the initial, assessment and intervention phases, including examining multicultural differences and expectations.
Letter grade only (A-F).
503A. Human Behavior and Environment in Multicultural Perspectives: Focus on Prenatal through Adolescence (3)
Reviews key theoretical frameworks (including psychodynamic, bio-psych-social, cognitive, systems, learning and role theories) for their clinical application to assessment, diagnosis and treatment of children and families. Focus is on the impact of poverty socio-cultural factors in child development.
Letter grade only (A-F).
503B. Human Behavior and Environment in Multicultural Perspectives: Focus on Young Adulthood Through Old Age (3)

Prerequisite: SW 503A.
Reviews key theoretical frameworks (including psychodynamic, bio-psycho-social, cognitive, systems, learning and role theories) for clinical application to assessment, diagnosis and treatment of adults and families. Focus is on the impact of poverty and socio-cultural factors in adult development.
Letter grade only (A-F).
505. Oppressed Groups: Social Policy Analysis (3)

Analyzes the historical, economic and political factors underlying the United States social welfare system. The impact of current policies on oppressed groups will be examined.
Letter grade only (A-F).

## 540. Social Work Practice in Health Care (3)

Direct practice issues in a variety of health care settings. Policy issues will also be discussed as they affect or dictate direct practice in various health care settings.
Letter grade only (A-F).
560. Direct Intervention with Individuals and Families: Focus on Children, Youth and Families (3)
Prerequisites: SW 500, 596A, or 596C. Concurrent enrollment in SW 596B or 596D.
Focuses on practice related to interpersonal interaction with children, youth, family and adults. Emphasizes implementation of psychosocial study, assessment and intervention from multicultural perspectives. Cognitive-behavioral, family systems, psychosocial and crisis intervention/brief therapy approaches are examined using an ecological framework.
Letter grade only (A-F).
561. Direct Intervention with Individuals and Families: Focus on Older Adults (3)
Prerequisites: SW 500, 596A or 596C, and concurrent enrollment in SW 596B or 596D.
Examination of varied practice strategies in depth. Behavioral, cognitive, humanistic, psychosocial and psychodynamic models viewed in relation to the ecological systems and multicultural perspectives. Focuses on assessment through termination phases of the helping process.
Letter grade only (A-F).

## 562. Social Work and AIDS (3)

Aspects of Acquired Immune Deficiency Syndrome and Human Immunodeficiency Virus relevant to social work practice are covered. Topics covered include: child welfare, policy implications, psychosocial issues, substance abuse, gender and cultural issues, ethics, prevention, mental health, aging, etc.
Letter grade only (A-F).

## 569./469. Disability, Culture and Society: Issues and Intervention (3)

Prerequisites: Senior or graduate status.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Same course as GERN 569/469 and REC 569/469. Letter grade only (A-F).

## 590. Special Topics (3)

Prerequisite: Consent of instructor.
Content may vary from semester to semester.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units for majors and 9 units for non-majors with different topics. Letter grade only (A-F).

## 591. Diagnosis and Treatment in Clinical Practice with Older Adults (3)

Prerequisites: Graduate status.
Introduces the theory and application of clinical interventions with older adults. Within the eco-systems framework and multicultural perspective, emphasis is placed on understanding late-life problems and mental disorders, on developing skills in assessment and diagnosis, and treatment.
Letter grade only (A-F).

## 592. Community Projects I (3)

Acquisition and application of macro practice skills to community problems. Includes history and methods, relationship between professional values and ethical dimensions of community practice, socio-political determinants of community problems, macro practice theory and models. Implications for culturally diverse, impoverished communities.
Letter grade only (A-F).

## 593. Intergroup Dialogue Facilitation: Skills for Multicultural Social Work Practice (3)

Prerequisites: Graduate student status.
Increases awareness, knowledge, understanding, and skills needed to effectively carry out multicultural social work practice with diverse populations, in terms of race, ethnicity, class, gender, religion, sexual orientation, age, ability status, and national origin. Students facilitate multicultural group interactions.
Letter grade only (A-F).

## 594A. Research Methods in Social Work I (3)

An introduction to research methods, including conceptualization of research problems, designs, sampling, measurement, and data collection. The emphases are on building skills for conducting multiculturally focused research and evaluating findings critically. Letter grade only (A-F).

## 594B. Research Methods in Social Work II (3)

Prerequisite: SW 594A.
Continuation of research methods, including qualitative and quantitative data analysis, program evaluation, grant writing, and preparation of reports for dissemination. There are continued emphases on the ability to conduct multiculturally focused research and evaluate findings critically.
Letter grade only (A-F).

## 596A. Field Instruction I (3)

Prerequisite: Concurrent enrollment in SW 500.
First of two semesters with supervised practice in social work agency. Develops basic skills with individuals, families, groups and communities, emphasizing multi-cultural practice. Two hours weekly field seminar on campus and 16 hours in agency placement.
Credit/No Credit grading only.

## 596B. Field Instruction II (3)

Prerequisite: SW 500, 596A or 596C, and concurrent enrollment in SW 560 or 561.

Second of two semesters with supervised practice in social work agency. Develops basic skills with individuals, families, groups and communities, emphasizing multi-cultural practice. Two hours weekly field seminar on campus and 16 hours internship.
Credit/No Credit grading only.

## 596C. Field Instruction I (3)

Prerequisite: Concurrent enrollment in SW 500.
First of two semesters with supervised practice in social work agency. Develops basic skills with individuals, families, groups and communities, emphasizing multi-cultural practice. Two hours weekly field seminar on campus and 36 hours in internship.
Credit/No Credit grading

## 596D. Field Instruction II (3)

Prerequisite: SW 500, 596A or 596C, and concurrent enrollment in SW 560 or 561.

Second of two semesters with supervised practice in social work agency. Develops basic skills with individuals, families, groups and communities, emphasizing multi-cultural practice. Two hours weekly field seminar on campus and 36 hours internship.
Credit/No Credit grading only.

## 599. Independent Study (1-3)

Prerequisites: Consent of Department and instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
642. Mental Health and the Older Adult: A Multi-Cultural Perspective (3)
Focuses on a broad-based selection of demographic, psychological and social issues concerned with the older person and their families. Topics will be described and analyzed from preventive, clinical and cross-cultural perspectives.
Letter grade only (A-F).
643. Social Work Practice within Child Welfare Services (3)

Prerequisite: SW 503.
Child protective policies and practices, including adoption, family preservation, family foster care, kinship care, group/residential care, independent living, risk assessment. Accomplishments and controversies in service delivery, integrating multi-cultural practice and federally mandated outcomes related to child safety, wellbeing, and permanency.
Letter grade only (A-F).
660. Direct Intervention with Groups: Focus on Children Youth and Families (3)
Prerequisites: SW 560 and concurrent enrollment in SW 680A or SW 680C.
Teaching of advanced specialized skills needed to work with groups, emphasizing work with children, youth, and families. Focuses on clinical work with groups with special emphasis on eco-systems and multi-cultural perspectives.
Letter grade only (A-F).

## 661. Direct Intervention with Groups: Focus on Older Adults (3)

Prerequisites: SW 561 and concurrent enrollment in SW 680A.
Teaching of advanced specialized skills needed to work with groups, emphasizing work with older adults and families. Focuses on clinical work with groups with special emphasis on ecosystems and multi-cultural perspectives.
Letter grade only (A-F).

## 662. Legal Issues in Social Work Practice (3)

Legal aspects concerning children, the family, and aged, abortion and illegitimacy issues, right to treatment, mental health commitment procedures, rights of the elderly, children's rights, marriage, and divorce are covered. Legal research and resources, legal reasoning, and understanding of court systems.
Letter grade only (A-F).

## 663. Assessment and Treatment of Alcoholism and Substance Abuse (3)

Social work practice with individual alcoholics, their family systems, and their community network of collaterals. Awareness of prevalence of alcoholism and drug abuse and significance for clinical social work practice. Dynamics and treatment of disease will be revealed.
Letter grade only (A-F).

## 665. School Social Work (3)

Social work practice in school-community-pupil relations. Attention to the school as a social institution.
Services in schools as a specialized field of social work practice; models of practice; social work roles; and target groups of children. Letter grade only (A-F).

## 666. Human Sexuality and Social Work (3)

Surveys a range of sexually related issues encountered in therapeutic relationships, as part of administrative duties, and at the social policy level. Presents knowledge base and requires student examination of own attitudes regarding various aspects of human sexuality.
Letter grade only (A-F).

## 667. Sex Roles and Gender Discrimination: Women's Issues in Social Work (3)

Examines historical and contemporary causes of gender discrimination against women in order to illuminate the problems faced by at-risk women. Special focus on women at risk for mental health problems, violence and poverty along with other critical issues affecting women.
Letter grade only (A-F).

## 668. Social Work in Neighborhoods (3)

Prepares students to assume social work roles and functions in neighborhood settings. Emphasizes the necessity of understanding the culture, physical and social organization, and power relationships of modalities: planning and service delivery, development, and organization.
Letter grade only (A-F).

## 670. Social Work Administration (3)

Prerequisites: SW 500; 560 or 561; 596A or C, 596B or D, 660 or 661, and concurrent enrollment in 680B or D.
Examines foundation for organizational leadership and problem solving, using theories of organizational behavior and management. Frameworks for governance, planning, monitoring, information management, human resources, fiscal responsibility, quality assurance, and community relations. Integration of multicultural and gender issues.
Letter grade only (A-F).

## 672. Program Evaluation in Social Services (3)

Introduction to prevailing types of problem evaluation and preparation for continual evaluation checks or self evaluations as conducted within service agencies. Conceptualization of service delivery system. Program planning evaluation, program monitoring, impact evaluation, and cost-benefit and cost-effectiveness analysis. Letter grade only (A-F).

## 673. Supervision/Staff Development/Consultation (3)

Prerequisites: SW 500; 560 or 561 ; 596A or C, 596B or D, 660 or 661, and concurrent enrollment in 680 B or D .
Reviews the philosophy, objectives, principles and methods of social work supervision, staff development, and consultation. Similarities and differences in the knowledge and skills required are analyzed, emphasizing the teaching-learning-evaluating components.
Organizational settings, changing legislation, professional standards are examined.
Letter grade only (A-F).
674. Clinical Diagnosis and Therapeutic Communication (3)

Reviews the major theoretical approaches to social work treatment to teach specific clinical interventions. Students are trained to skillfully and therapeutically intervene with a variety of DSM-IV diagnostic categories. Psychotherapy outcome research will be reviewed and evaluated.
Letter grade only (A-F).

## 676. Family Centered Social Work Practice: An

 Introduction to Theory and Techniques of Family Therapy (3)Advanced specialist course which overviews evolving viewpoints, perspectives, values, intervention techniques and goals of family therapy. The course will emphasize the development and enhancement of knowledge, skills, theories and values specific to family therapy and social work practice.
Letter grade only (A-F).

## 677. Social Work Practice in Mental Health (3)

Reviews the changing roles of social work in mental health, the influence of new psychosocial and psychiatric theories on the treatment of mentally disordered clients. Focus on social, economic and cultural factors as they affect social work in mental health.
Letter grade only (A-F).
680A. Field Instruction III (3)
Prerequisites: SW 500, 560 or $561,596 \mathrm{~A} / \mathrm{C}, 596 \mathrm{~B} / \mathrm{D}$, and concurrent enrollment in SW 660 or 661.
First of two semesters with supervised practice in social work agency. Focus on advanced direct practice skills and administrative program development with emphasis on multi-cultural practice.
Two hours bi-weekly in field seminar and 16 hours in agency placement. Credit/No Credit grading only.

## 680B. Field Instruction IV (3)

Prerequisites: SW 500, 560 or $561,596 A / C, 596 B / D, 680 A / C, 660$ or 661 and concurrent enrollment in SW 670.
Second of two semesters with supervised practice in social work agency. Focus on advanced direct practice skills and administrative program development emphasizing multi-cultural practice. Two hours bi-weekly field seminar and 16 hours agency. Preparation for entering professional employment.
Credit/No Credit grading only.
680C. Field Instruction III (3)
Prerequisites: SW 500, 560 or $561,596 \mathrm{~A} / \mathrm{C}, 596 \mathrm{~B} / \mathrm{D}$, and concurrent enrollment in SW 660 or 661.
First of two semesters with supervised practice in social work agency. Focus on advanced direct practice skills and administrative program development with emphasis on multi-cultural practice. Two hours bi-weekly in field seminar and 36 hours in agency placement.
Credit/No Credit grading only.

680D. Field Instruction IV (3)
Prerequisites: SW 500, 560 or 561, 596A or 596C, 596B or 596D, 680C, 660 or 661.
Second of two semesters with supervised practice in social work agency. Focus on advanced direct practice skills and administrative program development emphasizing multi-cultural practice. Two hours bi-weekly field seminar and 36 hours agency. Preparation for entering professional employment.
Credit/No Credit grading only.

## 681. Advanced Policy and Political Action: Children, Youth and Families (3)

Prerequisite: SW 505.
Designed to provide students with an advanced understanding of key issues, concepts, and skills associated with policy analysis, the development of policy alternatives, and political action on behalf of families and children in contemporary American society.
Letter grade only (A-F).

## 682. Advanced Policy Seminar: Older Adults and Families (3)

Provides students with an advanced understanding of key issues, concepts, and skills associated with policy analysis, the development of policy alternatives, and political action on behalf of older adults and their families in contemporary American society. Letter grade only (A-F).

## 683. Brief Treatment (3)

Covers the methodologies used in brief and/or time limited psychotherapy. Reviews the major forms of time-limited clinical treatment. Reviews the ethnic, gender and other-sensitivity issues related to the use of brief treatment and the empirical research on this treatment approach.
Letter grade only (A-F).

## 690. Special Topics in Graduate Social Work (3)

Prerequisites: Consent of Department.
Topics of special interest in social work selected for intensive study. Topics will be announced in the Schedule of Classes each semester.
Letter grade only (AF). May be repeated to a maximum of 6 units with different topics.
691. Non-Violent Conflict Resolution: In Your Life, On the Job, With Your Clients, and Around the Planet (3)
Designed to help the social work student examine conflict and violence, their own and others' responses to conflict
situations on the intrapersonal, interpersonal and community levels, and to learn to deal with conflict in a productive, non-violent manner.
Letter grade only (A-F).

## 693. Community Projects II (3)

Prerequisite: SW 592.
Integrates knowledge of cross-cultural practice, human behavior and research in identifying solutions to social problems. Builds on analysis from Community Projects I. Utilizing planning, program development and program implementation skills/techniques, students develop, implement and evaluate impact of a specific intervention.
Letter grade only (A-F).

## 698A. Thesis or Project I (3)

Prerequisites: SW 594A, 594B. Completion of 30 MSW units with a minimum cumulative GPA of 3.0, and advancement to candidacy.
Under the direction of the Thesis/Project Adviser, the student completes a thesis/project proposal, instruments and IRB protocol (if applicable), and drafts literature review.
Letter grade only (A-F).

## 698B. Thesis or Project I (3)

Prerequisites: SW 594A, 594B.
Completion of 30 MSW units with a minimum cumulative GPA of 3.0, and advancement to candidacy. Under the direction of the Thesis/Project Adviser, the student completes a thesis/project proposal, instruments and IRB protocol (if applicable), and drafts literature review.
Letter grade only (A-F).

## 699A. MSW Thesis or Project II (3)

Prerequisites: Completion of SW 698A or 698B.
Finalization of literature review and completion of remaining chapters (typically, introduction, methodology, results, discussion and implications) of thesis/project.
Letter grade only (A-F).

## 699B. Thesis or Project II (3)

Prerequisites: Completion of SW 698B.
Finalization of literature review and completion of remaining chapters (typically, introduction, methodology, results, discussion and implications) of thesis/project.
Letter grade only (A-F).

## SOCIOLOGY <br> College of Liberal Arts

## Department Chair

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Psychology Building, Room 145

## Telephone

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Faculty
Professors
Carole Campbell, Norma Stoltz Chinchilla, Gail C. Farmer, J. William Gibson, Marsha S. Harman (Emerita), Douglas A. Parker (Emerita)

## Associate Professors

Shelley T. Eriksen, Gary Hytrek, Juniper Wiley, Kristine M. Zentgraf

## Assistant Professors

Nielan Barnes, Jeffrey Davis, Marc Flacks, Elizabeth McEneaney, Walter J. Nicholls, Leakhena Nou

## Department Secretaries

Lily Monji, Jacqueline Southern

Students desiring information should contact the department office for referral to the faculty advisor:

## UndergraduateAdvisors

Gary Hytrek, Kristine M. Zentgraf

The major in sociology is intended to serve as preparation for careers in teaching, delivery and administration of social and health services, urban and environmental studies, law, government service at local, state and federal levels and related occupations.
The major also provides training for advanced graduate work in sociology, social work and other social sciences. Sociology is also recommended as a second major or minor for students of all other social sciences; for business; for the humanities; especially literature and theatre arts; for ethnic and area studies; for journalism and other various applied arts and sciences.

Students interested in sociology may also wish to consider the liberal studies major with a concentration in sociology. The Liberal Studies program is discussed elsewhere in this Catalog. Detailed information about the concentration may be obtained from the Sociology Department Office.

Sociology courses are suitable for fulfilling general education or elective requirements for students of other majors. However, lower division courses selected to fulfill the requirements of the major may not also be used to fulfill the requirements of any General Education category.

## Bachelor of Arts in Sociology (code SOC_BA01) (120 units)

## Requirements

Lower Division: Twelve units of lower division are required. Students must have credit for SOC 100, 142, 250, and 260. It is recommended that students take Cultural Anthropology (ANTH 120) as an elective.

Upper Division: All majors are required to have a minimum of 31 upper division units in sociology. This must include (1) at least 16 units in core courses: SOC 335I or $354,356,420$ or $427,355,357$; and (2) nine units in one concentration and (3) six units of electives from other upper division courses in sociology. Total credit for courses numbered 490 through 499 may not exceed twelve units. Completion of at least 51 semester units of college work is required before students will be accepted into upper division courses.

The department strongly recommends that lower division courses be completed before upper division courses. Taking the courses in sequential order will allow students to gain maximum benefit from the curriculum. Experience has shown that students who take courses out of sequence do not perform as well academically. SOC 260, Introduction to Data Analysis, and SOC 250, Elementary Statistics, should be taken before SOC 355, Methods of Social Research. Required upper division courses also should be taken in sequential order consecutively. SOC 356, Developmental Sociological Theory, should be taken before SOC 357, Modern Sociological Theory.

## Concentrations

Deviance and Social Control
SOC 345, 354*, 423, 440, 4411, 448, 463, 491, 495
Interaction and Group Relations
SOC 320, 325 (or W/ST 325), 335I*, 336, 340 (or CHLS 350), 341, (or CHLS 352), 345, 346, 354*, 423, 426, 464, 492, 495; W/ST 401I
Medical Sociology
SOC 350, 354*, 423, 461, 462, 463, 464, 466, 493, 495;
H/SC 400
Research
Concentration currently not available
Social Change and Global Issues
SOC 346, 350, 354*, 410I, 420*, 427*, 449, 450, 494, 495;
ANTH or GEOG 307I; I/ST 317I or I/ST 318I; W/ST 401I
*If not taken as one of the core courses

## Minor in Sociology (code SOC_UM01)

A minimum of 24 units which must include:
Lower Division: SOC 100, 142
Upper Division: SOC 335I and a minimum of 15 units selected from other upper division courses in sociology. Total credit for courses numbered 490 through 499 may not exceed 6 units.

## Courses (SOC)

## LOWER DIVISION

## 100. Principles of Sociology (3)

Prerequisite: Completion or concurrent enrollment in a general education foundation course.

Introduction to the sociological perspective as a tool for understanding society and culture, including the inter-personal, inter-group and global dimensions of social life.
(CAN SOC 2)

## 142. Social Trends and Problems (3)

Prerequisite: Completion of or current enrollment in ENGL 100 or PSY 130 or equivalent.
General introduction to the study of social trends and problems in American institutions including social inequality crime, health and illness, education, media, environment and war and terrorism. Emphasis is on social problems as products of the socio-historical and global context.
Open to non-majors for General Education credit in Category D.2.B.

## 161. Introduction to Latin American Studies (3)

Prerequisite: Completion or concurrent enrollment in ENGL 100.
An interdisciplinary overview of history, society, and culture in Latin America - Mexico, Central American, the Caribbean, and South America. Examines the political, economic, social, and cultural conditions for conflict, change, and continuity over the last five hundred years.
Same course as HIST 161 and LAS 161. Letter grade only (A-F).

## 250. Elementary Statistics (4)

Prerequisite: Knowledge of mathematical procedures usually covered in elementary high school algebra as demonstrated on a screening examination, and SOC 210.
Introduction to descriptive and inferential statistics and applications in social and behavioral science research, performance of statistical exercises by interactive computer. Emphasis upon knowledge of which statistical tests to use and how to interpret results.
(Discussion 3 hr ., Lab 2 hrs .) Not open to students with credit in HDEV 250, C/LA 250, ANTH 202, MATH 180 or PSY 110.

## 255. Elementary Statistics (3)

Prerequisite: Knowledge of mathematical procedures usually covered in elementary high school algebra and SOC 210.
Covers the concepts and techniques of descriptive and inferential statistics and statistical reasoning as applied to social science research. Focuses on the understanding of statistical measures and the assumptions underlying them.
Letter grade only (A-F). Not open for credit to students with credit in C/LA 250, HDEV 250, MATH 180, or PSY 210.

## 260. Introduction to Data Analysis (3)

Use of computers and statistical programs to analyze data, prepare research documents, and explore Internet resources. Topics include principles of scientific research, data coding, entry, and editing. Prior course work in statistics or demonstrated knowledge of statistical procedures necessary.
Letter grade only (A-F).

## UPPER DIVISION

## 317I. Problems in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Topics may include ethnocentrism; nationalism; globalization; trade; aid;
economic development; poverty; inequality; the environment; war; ideological, ethnic, gender, and religious conflict; democratization; social movements; new forms of civil society and social solidarity. Letter grade only (A-F). Same course as I/ST 317 I.
3181. Cases in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Case studies will focus on globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest; human rights; democratization; global citizenship; environmental sustainability.
Letter grade only (A-F). Same course as I/ST 318 I.

## 320. The Family (3)

Prerequisite: SOC 100 or consent of instructor.
Sociological study of the social forces that shape the family in various cultures. Key theories and research methods used by sociologists to study family dynamics and change will be reviewed.

## 325. Sociology of Women (3)

A sociological analysis of the social, political and economic status of women. Examines the history of women's roles and status; gender conflicts and social movements; and societal attitudes towards women in society.
Same course as W/ST 325.
335I. Social Psychology (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the origins and development of the self through the socialization process. Emphasis is on the social influence of small groups (family, peers, reference groups and subcultures) and societal organization and institutions on identity, role behavior and attitudes.
Not available to students with credit in PSY 351.
336. Sociology of Small Groups (3)

Prerequisite: SOC 100.
Theoretical and practical understanding of the structure, organization and function of small groups.
Examines small group dynamics, including individuals in social situations, stages of group development, and small group approaches to problems.

## 340. The Latino Population in the United States (3)

Survey of Latinos in the U.S., including topics such as immigration, settlement patterns, employment, family, language and culture. Emphasis is on racism and the intersections of class and gender and the heterogeneity of the Latino population.
Same course at CHLS 350.

## 341. Central American and Caribbean Peoples in California (3)

Survey of the socioeconomic conditions and cultural life of the Central American and Spanish-speaking Caribbean communities in California, such as Salvadoran, Guatemalan, Puerto Rican, and Cuban communities. Similarities and differences with the MexicanAmerican community will be examined.
Same course as CHLS 352.

## 345. Juvenile Delinquency (3)

Study of juvenile delinquency from a sociological perspective. Topics include a historical examination of delinquency, major theories of delinquency, the social context of delinquency, the societal reaction, social policies involving the juvenile justice system and youth related social problems.

## 346. Race, Gender and Class (3)

Prerequisite: Completion of the G.E. Foundation.
Sociological examination of race/ethnicity, gender and class in the U.S. Examines the affect of ideology, social interactions and social institutions on the creation and maintenance of racial, gender and class inequality.

## 350. International Population Problems (3)

Overview of the basic demographic variables (fertility, mortality and migration) and methods (vital statistics and census) to the study of international population problems. Examines the historical and current trends and problems in world population composition, growth and movement.

## 354. Qualitative Methods of Social Research (4)

Prerequisites: SOC 100, 250, and one upper division course in sociology.
Review and critique of principles and essential features of classical and contemporary qualitative studies. Topics include research design, modes of participant observation, sampling and interview techniques, analysis and interpretation of data. Field assignments and individual research projects are required.
(Lecture 3 hours, laboratory 2 hours.)

## 355. Quantitative Methods of Social Research (4)

Prerequisites: SOC 100, 210, 250 and one upper division course in sociology.
A review of social research methods with emphasis on research design, including operationalization, measurement, scaling, reliability, validity and sampling; techniques of data collection and analysis. Individual student research projects are required.
(Lecture 3 hours, laboratory 2 hours) Letter grade only (A-F).
356. Development of Sociological Theory (3)

Prerequisite: SOC 100.
Social thought and historical forces leading to the emergence of sociology and an exploration of classical theories into the 1930s including such thinkers as Marx, Durkheim, Weber, Mead and Merton.

## 357. Modern Sociological Theory (3)

Prerequisites: SOC 100, 356 and one other upper division course in sociology. Recommended: courses in the philosophy of science and research methods.
Critical review of sociological thought from the 1930's to present. Major schools such as functionalism, interactionism, conflict, exchange, and system theory will be covered in depth and considered in relation to the nature of theory construction.
Letter grade only (A-F).

## 410I. Social Ecology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Analysis of interdependencies of elements of populations, environment, technology and social organization. Examines socioecological relationships currently and in historical perspective. Presentation and analysis of world and U.S. problems in social ecology.
Letter grade only (A-F).

## 420. Social Stratification (3)

Prerequisite: SOC 100.
Examines the sociological approaches and theories of stratification and inequality. Emphasis is on how social class affects opportunity structures, income, social mobility and life chances. Analyzes the causes and consequences of economic, political and social inequality.

## 423. Child Abuse and Prevention (3)

Examines child abuse as a social problem; its history and causal factors, including social processes and changing family patterns. Emphasis is on social interventions and policy implications, including the role of concerned citizens and child advocates.
(Discussion/Seminar) Same course as SW 423.

## 426. Sociology Sex Behavior (3)

Analyzes the social context of human sexuality, including the effects of socialization, social class, race/ethnicity, as well as occupation and religion on sexual attitudes and behavior.

## 427. Social Order and Social Change (3)

Prerequisite: SOC 100 and upper division status.
Sociological analysis of social order and change from a historical and contemporary perspective. Emphasizes is on the interactions between social movements, politics, economics and culture in explaining the differential patterns of change.
430. Sociology of Globalization (3)

Prerequisites: SOC 100 and upper division standing.
Sociological examination of globalization. Themes include emergence of the global order, ideology and power; democracy; capital and labor mobility; technology; environment; inequality; culture; and the reactions to globalization.
Course may include a service learning component. Letter grade only (A-F).

## 440. Sociology of Deviance (3)

Prerequisite: SOC 100.
Study of deviance from a sociological perspective. Focuses on the role of social institutions that define, shape and maintain definitions and perceptions of deviance. Topics include theories of deviance, including micro-level processes that shape behaviors and attitudes.
(Lecture 3 hours.)
441I. Criminology (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Study of crime from a sociological perspective and the emerging interdisciplinary approaches to crime. Topics include definitions and measurement of crime, types of crime and crime statistics, and social policy issues involving the criminal justice system and crime prevention.
(Lecture/Discussion.)

## 448. Impersonality, Violence and Survival: An Analysis Through Film (3)

Exploration through film of the societal conditions that facilitate impersonality, alienation and ultimately violence in modern society. Examines the struggle of the individual to survive, physically and psychologically in modern society and individual attempts to transcend social barriers.
Not open for credit to students with credit in this subject under SOC 490. (Discussion)

## 449. Sociology of Political Rights (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
The study of the nexus between political processes and legal institutions. Analysis of how sociology contributes to our understanding of the legal and political aspects of social systems, social context of political action and social bases of power.

## 450. Marxist Sociology (3)

Analysis of human behavior, society and social change from a Marxist perspective.

## 461. Alcohol and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Recommended: an elementary statistics course.
Epidemiological and sociological approaches to the study of alcohol use and abuse; socio-cultural correlates of alcohol use; effects of alcohol use on physical and mental health; role of government and other organizations in the prevention and treatment of alcohol abuse.

## 462. Medical Sociology (3)

Prerequisite: Completion of the G.E. Foundation.
Epidemiological and sociological approaches to health and illness; patterns of physical and mental disease; patient and physician perspectives; causes of stress and coping; health care delivery and utilization; interaction of physician, nurse, therapist, health administrator, social worker, patient, and family.

## 463. Mental Illness and Society (3)

Prerequisite: SOC 100.
Epidemiological and sociological approaches to mental health and illness; prevalence and incidence of mental disorders; effects of family history, work experience and life-change events; social and legal status of the mental patient; governmental and organizational role in mental illness.

## 464. Aging and Society (3)

Prerequisites: SOC 100 or 142.
Examines the impact of the aging population upon society and the effects of the socially defined experience of aging upon the individual. Analysis of the relationship between age and such variables as gender, race/ethnicity, class, marital and health status.

## 466. AIDS and Society (3)

Prerequisites: SOC 100 or 142 or PSY 100. Recommended: BIOL 100 or 200 or MICR 100 or 101.
Examines behavioral aspects and societal impact of the AIDS epidemic. Covers structural barriers such as poverty, sexism, and racism in HIV/AIDS prevention and treatment. Examines sexual identities, gender, race, culture and class. Emphasizes gender roles and gender power relations.
Letter grade only (A-F).

## 470. Science and Religion in Biography (3)

Prerequisites: ENGL 100 and consent of instructor.
Comparison of theories, doctrines and methodologies of religions and quasi-religions in contrast to the natural, social and behavioral sciences. Sources of bias in different methods of inquiry (scientific, humanistic and religious) will be examined through classical and contemporary case material.
Letter grade only (A-F).

## 490. Special Topics in Sociology (1-3)

Topics of special interest in sociology selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics.
491. Special Topics in Deviance and Social Control (3)

Topics of special interest in Deviance and Social Control selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics (Discussion.) Letter grade only (A-F).

## 492. Special Topics in Interaction and Group Relations

 (3)Topics of special interest in Interaction and Group Relations selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. (Discussion.) Letter grade only (A-F).

## 493. Special Topics in Medical Sociology (3)

Topics of special interest in Medical Sociology selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. (Discussion.) Letter grade only (A-F).

## 494. Special Topics in Social Change and Global Issues

 (3)Topics of special interest in Social Change and Global Issues selected for intensive study. Topics will be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. (Discussion.) Letter grade only (A-F).

## A. Sociology of Migration and Immigration

495. Internship (1-4)

Prerequisites: SOC 100, 142, 335I, junior or senior standing, consent of instructor.
Supervised field experience in public and private agencies allowing students to relate sociological principles to community situations. Designed to provide career-related work experience in both research and applied fields. 1-4 units depending on field assignment and time required.
May be repeated to a maximum of 6 units. (6-10 hours per week field experience.)

## 496. Field Practicum (1-3)

Prerequisites: SOC 495.
Continuation of SOC 495. Permits students who continue working at a community agency to conduct special projects for that agency. Includes class meetings to discuss student projects, papers and evaluation activities for the agency. 1-3 units depending on field assignment.
May be repeated to a maximum of 4 units.

## 497. Peer Facilitation in Sociology (3)

Prerequisites: A grade of at least a "B" earned in at least one upper division course related to the peer facilitation activity and consent of instructor.
Conducting optional discussion sections, assisting an instructor in class exercises, projects or small group discussions, or tutoring individual students. Peer facilitation activities will be guided by meetings with the supervising faculty member and supplemented by reading and writing assignments.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

## 499./599. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study of special topics under the supervision of a faculty member.
May be repeated to a maximum of 4 units. In exceptional cases, may be repeated to a maximum of 6 units with consent of department.

## GRADUATE LEVEL

## 599./499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.
May be repeated to a maximum of 4 units. In exceptional cases, to a maximum of 6 units with department consent. Undergraduates completing over 3 units of SOC 499 may not enroll. Letter grade only (A-F).

## SPANISH

College of Liberal Arts

Department Chair<br>Jutta Birmele<br>Program Directors<br>Claire E. Martin<br>RGRLL Language Coordinator<br>Markus Muller<br>Single Subject Coordinator for L.O.T.E.<br>Jean-Jacques Jura<br>Department Office<br>McIntosh Humanities Building (MHB), Room 820<br>Telephone<br>(562) 985-4318<br>Faculty<br>Professors<br>Harold L. Cannon, Claire E. Martin

## Associate Professors

Maria Carreira, Alicia del Campo, Alexander Rainof, Lisa Vollendorf

## Assistant Professor

Bonnie Gasior
Administrative Support Coordinator
Cindy McCarty

Students desiring information should contact the department office for referral to one of the faculty advisors: Credential Advisor, Graduate Advisor, Undergraduate Advisor.

Amajor in Spanish is a treasured possession. A second major or a minor in Spanish opens many doors, but no matter what field a student plans to enter, be it health services, business, teaching, government, law, medicine, transportation, translation, engineering, or entertainment, a familiarity with Spanish will be invaluable. Bilingualism is almost an imperative in Southern California as well as in many other parts of our country.

In addition, the program provides preparation for those who plan to pursue doctoral work at other institutions. It also provides a liberal education for those who wish to expand their knowledge of the communication process and of Hispanic literature and cultures. The Spanish Program offers courses in language, linguistics, literature, culture and translation leading to the following degrees and certificates: Bachelor of Arts and Master of Arts degrees in Spanish, Single Subject Teaching Credential in Spanish. Concentration in Spanish for the Bachelor of Arts in Liberal Studies, minor in Spanish, Bilingual Concentration for B.A. in Liberal Studies, B.A. in Special Major and the M.A. in Interdisciplinary Studies.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Translation and Interpretation Studies

## Option English/Spanish (code RGR_BA07) (120 units)

This program has been suspended. No new students will be admitted fall 2006. Interested students should contact the department.

The degree in Translation and Interpretation Studies provides students proficient in both English and Spanish an opportunity to develop and perfect their linguistic skills and cultural knowledge to pursue a career in the field of translation and interpretation. The areas covered by the BA in Translation and Interpretation Studies include: technical vocabulary acquisition (legal, medical, business, technical, etc.), written translation, research methodology (including the identification and use of primary and secondary sources), sight translation, and consecutive and simultaneous interpretation.

The program consists of seven specialized courses in order to meet the professional needs of students preparing for a career in translation and interpretation techniques and methodologies. In addition, students take two three-unit concurrent courses in advanced grammar and composition (SPAN 300), and three courses in linguistics, civilization and literature selected from SPAN 310, 423, 427, and 445 for a total of 36 upper-division units.

## Prerequisite

SPAN 300 with a "B" or better. May be waived with instructor's consent.

## Requirements

SPAN 461, 462, 463, 464, 465, 466, 467. In addition, nine of the following twelve units: SPAN 310, 423, 427, or 445.

## Bachelor of Arts in Spanish

To prepare for a program of courses for the major in Spanish, the student is advised to keep in mind the upperdivision options noted below as well as the Basic Core and Prerequisites for courses. The Spanish Program consists of a Basic Core (21 upper-division units) and an Option ( 9 upper-division units). Please note that all options will satisfy the single-subject credential requirements. However, the Linguistics/Language Acquisition Option is strongly recommended for students interested in the Single Subject Credential Program. For all options, at least one year of a second foreign language at the University level is required.

## Prerequisites

One year of intermediate Spanish at the university level, or equivalent. Students who have completed sufficient high school Spanish or equivalent may take upper division courses as soon as proficiency requirements have been met. Native speakers of Spanish who have never formally studied the language are urged to take SPAN 250 (6-unit GE course).

## Requirements

Students are required to take a minimum of 30 units of upper-division Spanish coursework, which must include: the Basic Core of 21 units as follows: SPAN 300, 310, 330, 341, 423 , either 430 or 445 ; one of the following may be included in this category: RGR 346I or 450I. In addition to the Basic Core, the student must complete one of the following options:

## Option in General Spanish (code RGR_BA03) (120 units)

The option in General Spanish requires 9 upper-division units in addition to the Basic Core. The undergraduate advisor should be consulted to ascertain the appropriate courses for this option.

## Option in Linguistics and Language Acquisition (RGR_BA04)

The option in Linguistics and Language Acquisition is especially designed for students who are interested in teaching at the secondary or post-secondary levels or who plan to continue graduate study in Linguistics. Nine upperdivision units are required from the following courses: SPAN 322, 426, 427, 424 494, RGR 346I, 450I.

## Option in Literature and Cultural Studies (code RGR_BA05) (120 units)

The option in Literature and Cultural Studies is designed for students who desire a thorough grounding in the literature and cultures of Spain and Latin America, particularly those students who are planning on graduate study in Spanish. Nine upper-division units are required from the following courses: SPAN 428, 429, 430, 441, 443, 445, 446, 447, 490, 491, 492, 493, 494; RGR 346I, 4501.

## Option in Translation (code RGR_BA06) (120 units)

The Translation Option introduces students to the challenges of translation per se and provides a practical grounding in various types of translation which are to be found in any work setting. In addition, it will be of value to students planning graduate work in many fields, including comparative literature and translation itself. 9 units are required, selected from the following courses: SPAN 461, 462, 463, 464, 465, 466, 467 and 494.

Additional Requirements: A minimum of one year of a second foreign language at the university level is required of all majors.
N.B.: No course being used to satisfy any requirement for the B.A. or minor in Spanish may be taken on a Credit/ No Credit basis.

## Minor in Spanish (code RGR_UM05)

## Requirements

A minimum of 18 units in Spanish, at least 15 of which must be upper division and must include SPAN 300, and demonstration of oral fluency or SPAN 314. Students must file a Declaration of Minor and receive counseling from the undergraduate advisor. The minor in Spanish is available to any non-Spanish major.

## Single Subject Teaching Credential, Spanish (code 158)

Completion of the Spanish major meets the subject matter competence requirement for the Single Subject Preliminary Credential in Spanish (code 158). Prospective students should consult the undergraduate Spanish Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

In addition to meeting the subject matter competence requirement for the Preliminary Credential, prospective teachers of Spanish are also required to complete 44 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as postbaccalaureate student. Refer to the Single Subject Teacher Education section of this Catalog or the Single Subject Credential Program website (www.ced.csulb.edu/singlesubject) for a description of the professional preparation requirements, courses, and application procedures.

The Spanish Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

## Requirements

The same as for B.A. in Spanish.

## GRADUATE PROGRAMS

## Master of Arts in Spanish (code RGR_MA03)

## Prerequisites

1. A Bachelor of Arts degree in Spanish; or
2. A Bachelor's degree with a minimum of 18 upper division units in Spanish equivalent to the Basic Core of the B.A. in Spanish at this University, with at least a "B" (3.0) average. Deficiencies will be determined by the Master's Degree Committee after consultation with the student and study of transcript records.

## Advancement to Candidacy

1. Approval of a graduate program by the Graduate Advisor, the Department Chair, and the College Associate Dean of Graduate Studies.
2. Requirements: All deficiencies have been removed; the student has fulfilled the Graduation Writing Assessment Requirement (GWAR); the student has maintained at least a "B" (3.0) GPA in all work undertaken as a graduate student;
3. The candidate may file for advancement to Candidacy after filing an individualized Course Planner, completing prerequisites, and completing at least 6 units (preferably no more than nine units) on the M.A. program. The candidate must file not later than one semester or summer session prior to completion of course requirements.

## Requirements

1. Completion of a minimum of 30 units of approved upper division and graduate courses, with a minimum of 30 units in Spanish in the 500 and 600 series in Spanish;
2. Specifically required courses include: SPAN 524 and 650;
3. Two years of one of the following languages: Italian, French, or German, or pass an examination at intermediate level in one of those languages. Major or minor in a second foreign language may be used to fulfill this requirement, upon approval by the Department. Consult the Graduate Advisor;
4. Maintain a GPA of at least " $B$ " (3.0);
5. Pass three-hour examinations on Graduate Reading List in each of two areas to be selected by student from the following: Spanish Literature, Spanish American Literature, Linguistics. (See Graduate Advisor for the Graduate Reading List and to set up administration of the examinations. May take examinations (both areas) in either April or November.)
6. No more than six units of transfer graduate credit are allowed, subject to approval by the Graduate Advisor. No more than six units of International Programs course work may be credited toward the 24 -unit Spanish requirement for the M.A. at this University. International Programs units will be counted at the 400 -level.

## Courses (SPAN)

## LOWER DIVISION

101A. Fundamentals of Spanish (4)
For those who are beginning the study of Spanish or who have had less than two years of high school Spanish or equivalent. Concentration on oral comprehension and speaking.
(CAN SPAN 2)

## 101B. Fundamentals of Spanish (4)

Prerequisite or corequisite: Any Foundation course.
Continuation of SPAN 101A. Concentration on oral comprehension and speaking.
(CAN SPAN 4)

## 201A. Intermediate Spanish (4)

Prerequisite: SPAN 101B and completion of GE Foundation requirements (or entering competency equivalent to SPAN 101B and completion or concurrent enrollment in at least one Foundation course).
Continued development of audio-lingual skills, reading and writing. (CAN SPAN 8)

## 201B. Intermediate Spanish (4)

Prerequisite: SPAN 201A and the completion of GE Foundation requirements (or entering competency equivalent to SPAN 201A and completion or concurrent enrollment in at least one Foundation course).
Continued development of oral skills, reading and writing.
(CAN SPAN 10)

## 250. Spanish for Bilinguals (6)

Prerequisite: Near native speaker oral skills and completion of GE Foundation requirements (or concurrent enrollment in at least one Foundation course).
Addresses particular needs of bilingual student population. Emphasis on acquisition of solid grammatical base with development of writing and reading skills.
Letter grade only (A-F).

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. Advanced Grammar and Composition (6)

Prerequisite: AP Exam with a score of 5 or SPAN 201B or equivalent for non-native speakers. SPAN 250 or equivalent for heritage speakers.
Review of grammatical principles, general consolidation of the four language skills (reading, speaking, comprehension and writing) with special emphasis on writing papers and acquisition of cultural knowledge of the Hispanic world.

## 310. Introduction to Literary Analysis (3)

Prerequisite: One 300-level course in Spanish or consent of instructor.
Discovery of literature as a work of art. Different levels of interpretation; complexity of structure related to content; literary appreciation.
Letter grade only (A-F).

## 314. Oral Communication (3)

Prerequisite: Upper division standing in Spanish, consent of instructor.
Emphasis will be placed on small-group discussion to improve communication skills in Spanish. Intended for non-native speakers.

## 322. Bilingual Teacher (3)

Prerequisites: SPAN 300 or consent of instructor.
Development and application of vocabulary for teaching elementary/secondary school subject matter in Spanish; application in actual teaching situations.

## 330. Literary Masterpieces: Spain (3)

Prerequisites: SPAN 310 or consent of Spanish Program Director; completion of GE Foundation requirements.
Critical analysis of masterworks of Spanish literature. (Lecture 3 hours.)

## 335A. Business Spanish (3)

Prerequisites: SPAN 300 (6 units) or consent of instructor.
Study of terminology and practices from the world of business, with a focus on business relating to the Spanish speaking world, including the Hispanic market in the United States. It focuses on commerce, management, banking, real estate, and labor relations.
Letter grade only (A-F).

## 335B. Business Spanish (3)

Prerequisites: SPAN 300 or consent of instructor.
Study of terminology and practices from the world of business, with a focus on business relating to the Spanish speaking world, including the Hispanic market in the United States. It focuses on marketing, finance, import and export.
Letter grade only (A-F).
341. Literary Masterpieces: Spanish America (3) Prerequisites: SPAN 310 or consent of Spanish Program Director.
Critical analysis of masterworks of Spanish American literature. (Lecture 3 hours)
400./500. Don Quijote and the Critics (3)

Prerequisite: SPAN 310.
Designed to guide students through a close reading of
Cervantes's Don Quijote, with special emphasis on various theoretical approaches to text. Provides basic introduction to literary criticism.

## 420./520. History of Spanish Language (3)

Prerequisite: One course in Spanish linguistics or consent of instructor.
Analysis of written and spoken Spanish from its inception through its current use in the Hispanic world.

## 423./523. Introduction to Spanish Linguistics (3)

Prerequisites: SPAN 300 or consent of instructor.
Overview of Spanish Linguistics. Focus of study: history of Spanish language, grammatical systems (Phonology, Morphology, Syntax), sociolinguistics status of Spanish in the U.S. and teaching of Spanish as a second language.
Undergraduates register for 423; graduates register for 523.
426./526. Spanish Morphology and Syntax (3)

Prerequisite: Consent of instructor.
Morphemic and syntagmatics analysis of Spanish; introduction to transformational grammar.
(Lecture 3 hours)
427./527. Contrastive Analysis of Spanish and English (3)

Prerequisite: Consent of instructor.
Study of the known points of similarity and differences between the two languages.

## 428. Spanish Cinema (3)

Prerequisites: Upper division standing.
Focus on socio-political and asthetic aspects of Spanish Cinema, concentrating on the following periods. Early Francoism, NeoRealism, The Barcelona School, the Transition Period, post Franco Years, and new trends in Spanish Cinema.
Taught in English. Letter grade only (A-F). Same course as FEA 392E.

## 429./529. Studies in 19th and 20th Century Spanish Poetry (3)

Prerequisite: SPAN 330.
Examines salient poets from last two centuries, including Rosalía de Castro, Gustavo Adolfo Bécquer, Antonio Machado, Juan Ramón Jiménez, Vicente Aleixandre, Federico García Lorca, Gloria Fuertes, Jaime Gil de Biedma, and other more contemporary figures.
Undergraduates register in SPAN 429; graduates register in SPAN 529. Letter grade only (A-F). (Seminar 3 hours)

## 430. Spanish Civilization (3)

Prerequisites: Upper division standing in Spanish or consent of instructor.
Characteristic features of Spanish culture with special attention to the various institutions, economic, social and cultural configurations, and the ways of thinking.

## 438./538. Studies in Golden Age Literature (3)

Survey of Spanish Golden Age literature. Readings will focus on the literary masterpieces of the Renaissance and Baroque periods by Gongora, Quevedo, Cervantes, Santa Teresa de Jesus, San Juan de la Cruz, Garcilaso de la Vega, and Calderon de la Barca.

## 439./539. Modern Spanish Narrative (3)

Prerequisite: SPAN 330 or consent of instructor.
Representative 19th and 20th century novelists.
Undergraduates register in SPAN 439, graduates register in SPAN 539. (Seminar)
441./541. Studies in Nineteenth and Twentieth Century Spanish American Narrative (3)
Prerequisite: SPAN 341 or consent of instructor.
Critical analysis of 19th and 20th century Spanish American prose fiction. Undergraduates register in SPAN 441, graduates register in SPAN 541.
(Seminar 3 hours).
442./542. Nation Building and Women's Writing in Nineteenth-Century Spanish America (3)
Prerequisites: SPAN 310 and 341 or consent of instructor.
Explores field of Spanish American women writers during nineteenth century and concept of nation building. Several genres are studied: epistolary narrative, short-story, travel narratives, essay, autobiography, and the novel.

## 443./543. Studies in Nineteenth and Twentieth Century Spanish American Poetry (3)

Prerequisite: SPAN 341 or consent of instructor.
Study of representative 19th and 20th century Spanish American poets.
Undergraduates register in SPAN 443, graduates register in SPAN 543. Letter grade only (A-F). (Seminar)

## 445. Latin American Civilization (3)

Prerequisite: Upper division standing in Spanish or consent of instructor.
Analysis of main currents in Latin American civilization.

## 446./546. Studies in Spanish Culture (3)

Prerequisite: SPAN 330.
Deals with some aspect of Spanish culture in an interdisciplinary fashion during a given period. Topics could include social, political, theoretical, and/or historical perspectives on the arts.
Undergraduates register in SPAN 446; graduates register in SPAN 546. Seminar 3 hours. May be repeated to a maximum of 6 units. (Seminar 3 hours) Letter grade only (A-F).
447./547. The Invention of Spain: Visions in Conflict (3) Prerequisites: SPAN 300, 310, 330.
A social, historical and literary study of Spain from 1808 through the beginning of the Spanish Civil War in 1936. Many groups struggle to impose their vision of Spain as it emerges from the War of Independence in 1808, transitioning from the Antiguo Régimen to nationhood.

## 450./550. Studies in Colonial Spanish American Literatures (3)

Prerequisites: SPAN 310 and 341.
Focuses on canonical works from Spanish-American Colonial period (1500-1800). Covers large selection of literary texts of colonial period, including chronicles, relaciones, letters, diaries, poetry, autobiography, and travel literature.

## 455. Hispanic Cinema of the Americas (3)

Focuses on development of New Hispanic Cinema produced in the United States and Latin America. Explores major themes and trends of New Hispanic Cinema: "Nueva Ola" in Argentina, "Cinema Novo: the Cuban revolutionary cinema, and "Magic Realism" of the Southwest.
Letter grade only (A-F).
460./560. Studies Spanish American Culture (3)

Prerequisite: SPAN 341.
In-depth study of some essays which have dealt with problem of what Spanish American nations are, and what they should be during the republican era. Includes authors from both nineteenth and twentieth centuries.

May be repeated to a maximum of 6 units with different topics in different semesters.
461. Introduction to Translation and Interpretation (3) Prerequisites: SPAN 300 with a "B" or better or Spanish Program Director's consent.

Designed to introduce student to basic techniques essential to terminology acquisition, concentration, written and sight translation and consecutive and simultaneous interpretation.
462. Written and Sight Translation I: English/Spanish (3)

Designed to train students in sight and written legal, financial, medical and technical translation, and to introduce the student to the basic techniques that are essential to terminology acquisition. (English into Spanish).
Letter grade only (A-F).
463. Written and Sight Translation II: Spanish/English (3) Prerequisites: SPAN 461 or consent of Spanish Program Director. Designed to train students in sight and written legal, financial, medical and technical translation, and to introduce the student to the basic techniques that are essential to terminology acquisition. (Spanish into English).
Letter grade only (A-F).

## 464. Consecutive Interpretation I (3)

Prerequisites: SPAN 461 or consent of Spanish Program Director. Designed to train students in forensic consecutive interpretation. Letter grade only (A-F).

## 465. Consecutive Interpretation II (3)

Prerequisites: SPAN 461 or consent Spanish Program Director. Designed to train students in Medical, Civil Legal, Business, Technical and State Agencies consecutive interpretation, and basic techniques that are essential to terminology acquisition and to techniques relating to interpreting in the consecutive mode sentences of up to forty words in length.
Letter grade only (A-F).

## 466. Simultaneous Interpretation English/Spanish (3)

Prerequisites: SPAN 461 or consent of Spanish Program Director.
Designed to introduce the student to the techniques that are essential to the five simultaneous operations that form an integral part of simultaneous interpretation.(English into Spanish).
Letter grade only (A-F).
467. Simultaneous Interpretation Spanish/English (3)

Prerequisites: SPAN 461 or consent of Spanish Program Director.
Designed to introduce the student to the techniques that are essential to the five simultaneous operations that form an integral part of simultaneous interpretation. Spanish into English.
Letter grade only (A-F).
490. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture.
Topics will be announced in Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).
491./591. Nobel Poets and Others (3)

Prerequisites: SPAN 330, 341, or consent of instructor.
Critical analysis of representative works of Nobel Poets (Aleixandre, Jiménez. Mistral, Neruda and Paz) and other significant poets (Albertik, Bécquer, Darío, García Lorca, Garcilaso, Góngora, Guillén, Vallejo, etc.) Undergraduates register in SPAN 491, graduates register in SPAN 591.
(Seminar 3 hours).

## 492./592. Studies in Hispanic Theater (3)

Prerequisites: SPAN 330 or 341, or consent of instructor.
Representative Spanish and Spanish American plays.
Undergraduates register in SPAN 492; graduates register in SPAN 592.
493./593. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture.
Topics will be announced in Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F). Undergraduates register in 493; graduates register for 593. (Lecture)

## A. Women and War: Voices of Resistance

Interdisciplinary course on autobiographical testimonies of women who experienced war and its aftermath. Includes literary, historical, sociological and psychoanalytical considerations of the impact of war on women during World War I and II, the Spanish Civil War, and confrontations in Latin America.
Same topic as HIST 490F, W/ST 490K. (Lecture)

## 494. Internship in Spanish (1-3)

Prerequisites: Consent of instructor and department chair.
Field work in Spanish, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in Spanish.

## 499. Independent Study (1-3)

Prerequisites: Consent of instructor and department chair. Individual projects or directed readings with a professor of the student's choice.
May be repeated to a maximum of 6 units. (Requires tutorial meetings and demonstrations of progress as defined in a written proposal.)

## GRADUATE LEVEL

## 500./400. Don Quijote and the Critics (3)

Prerequisite: SPAN 310.
Designed to guide students through a close reading of Cervantes's Don Quijote, with a special emphasis on various theoretical approaches to the text. The class will provide a basic introduction to literary criticism.

## 520./420. History of Spanish Language (3)

Prerequisite: One course in Spanish linguistics or consent of instructor.
Analysis of written and spoken Spanish from its inception through its current use in the Hispanic world.

## 523./423. Introduction to Spanish Linguistics (3)

Prerequisites: SPAN 300 or consent of instructor.
Overview of Spanish Linguistics. Focus of study: history of Spanish language, grammatical systems (Phonology, Morphology, Syntax), sociolinguistics status of Spanish in the U.S. and teaching of Spanish as a second language.
Undergraduates register for 423; graduates register for 523.

## 526./426. Spanish Morphology and Syntax (3)

Prerequisite: Consent of instructor.
Morphemic and syntagmatics analysis of Spanish; introduction to transformational grammar.
(Lecture 3 hours) Letter grade only (A-F).
527./427. Contrastive Analysis of Spanish and English (3)

Prerequisite: Consent of instructor.
Study of known points of similarity and differences between the two languages.
Letter grade only (A-F).
529./429. Studies in 19th and 20th Century Spanish Poetry (3)
Prerequisite: SPAN 330.
Examines salient poets from last two centuries, including Rosalía de Castro, Gustavo Adolfo Bécquer, Antonio Machado, Juan Ramón Jiménez, Vicente Aleixandre, Federico García Lorca, Gloria Fuertes, Jaime Gil de Biedma, and other more contemporary figures.
Undergraduates register in SPAN 429; graduates register in SPAN 529. Letter grade only (A-F). (Seminar 3 hours.)

## 538./438. Studies in Golden Age Literature (3)

Survey of Spanish Golden Age literature. Readings will focus on the literary masterpieces of the Renaissance and Baroque periods by Gongora, Quevedo, Cervantes, Santa Teresa de Jesus, San Juan de la Cruz, Garcilaso de la Vega, and Calderon de la Barca.

## 539./439. Modern Spanish Narrative (3)

Prerequisite: SPAN 330 or consent of instructor.
Representative 19th and 20th century novelists.
Letter grade only (A-F). Undergraduates register in SPAN 439, graduates register in SPAN 539. (Seminar)

## 541./441. Studies in Nineteenth and Twentieth Century Spanish American Narrative (3)

Prerequisite: SPAN 341 or consent of instructor.
Critical analysis of 19th and 20th century Spanish American prose fiction.
Undergraudates register in SPAN 441, graduates register in SPAN 541 Letter grade only (A-F). (Seminar 3 hours).
542./442. Nation Building and Women's Writing in Nineteenth-Century Spanish America (3)
Prerequisites: SPAN 310 and 341 or instructor's consent.
Explores field of Spanish American women writers during nineteenth century and concept of nation building. Several genres are studied: epistolary narrative, short-story, travel narratives, essay, autobiography, and the novel.

## 543./443. Studies in Nineteenth and Twentieth Century Spanish American Poetry (3)

Prerequisite: SPAN 341 or consent of instructor.
Study of representative 19th and 20th century Spanish American poets.
Undergraduates register in SPAN 443, graduates register in SPAN 543 Letter grade only (A-F). (Seminar)

## 546./446. Studies in Spanish Culture (3)

Prerequisite: SPAN 330.
Deals with some aspect of Spanish culture in an interdisciplinary fashion during a given period. Topics could include social, political, theoretical, and/or historical perspectives on the arts.
Undergraduates register in SPAN 446; graduates register in SPAN 546. May be repeated to a maximum of 6 units. Letter grade only (A-F). (Seminar 3 hours)

## 547./447. The Invention of Spain: Visions in Conflict (3)

Prerequisites: SPAN 300, 310, 330.
Social, historical and literary study of Spain from 1808 through the beginning of the Spanish Civil War in 1936. Many groups struggle to impose their vision of Spain as it emerges from the War of Independence in 1808, transitioning from the Antiguo Régimen to nationhood.

## 550./450. Studies in Colonial Spanish American Literature (3)

Prerequisites: SPAN 310 and 341 .
Focuses on canonical works from Spanish-American Colonial period (1500-1800). Covers a large selection of literary texts of colonial period, including chronicles, relaciones, letters, diaries, poetry, autobiography, and travel literature.

## 560./460. Studies in Spanish American Culture (3)

Prerequisite: SPAN 341.
In-depth study of some of the essays which have dealt with the problem of what the Spanish American nations are, and what they should be during the republican era. Includes authors from both nineteenth and twentieth centuries.

## 590. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture.
Topics will be announced in Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F).

## 591./491. Nobel Poets and Others (3)

Prerequisites: SPAN 330, 341, or consent of instructor.
Critical analysis of representative works of Nobel Poets
(Aleixandre, Jiménez. Mistral, Neruda and Paz) and other
significant poets (Albertik, Bécquer, Darío, García Lorca,
Garcilaso, Góngora, Guillén, Vallejo, etc.)
Undergraduates register in SPAN 491, graduates register in SPAN 591. (Seminar 3 hours).

## 592./492. Studies in Hispanic Theater (3)

Prerequisite: SPAN 330 or 341 , or consent of instructor.
Representative Spanish and Spanish American plays.
Letter grade only (A-F). Undergraduates register in SPAN 492; graduates register in SPAN 592.

## 593./493. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture.
Topics will be announced in Schedule of Classes. May be repeated to a maximum of 9 units with different topics. Letter grade only (A-F). Undergraduates register in 493; graduates register for 593. (Seminar).

## A. Women and War: Voices of Resistance

Interdisciplinary course on autobiographical testimonies of women who experienced war and its aftermath. Includes literary, historical, sociological and psychoanalytical considerations of the impact of war on women during World War I and II, the Spanish Civil War, and confrontations in Latin America. (Lecture)

## 599. Directed Studies (1-3)

Prerequisites: Graduate standing, advanced to candidacy, consent of the instructor and Chair or Graduate Advisor.
Selected topics on Hispanic Studies to be pursued in-depth.
May be repeated to a maximum of 6 units with different topics with consent of Graduate Advisor and Department Chair. Letter grade only (A-F).
640. Seminar in Spanish American Literature (3)

Prerequisite: SPAN 341 or consent of instructor.
Study of particular period, genre or author.
Topics will be announced in Schedule of Classes. Letter grade only (A-F). (Seminar 3 hours.)
650. Critical Theory (3)

Prerequisite: SPAN 310.
Introduction to critical theory, i.e., the discipline which in Western countries has replaced the previous one during the past twenty or more years. We will focus on some of its major developments, and also devote a few classes to the demonstration of the practical uses of the models of reading under consideration.
(Seminar 3 hours). Letter grade only (A-F).
691. Seminar in Spanish Literature-The Spanish Civil War and Its Artistic Repercussions (3)
Prerequisite: SPAN 330, 341 or consent of instructor.
Examines fiction dealing with war themes written during and after the Spanish Civil War (1936-39). It includes authors such as Arturo Barea, Constancia de la Mora, Cesar Vallejo, Pablo Neruda, Dolores Ibárruri, Ernest Hemingway, Juan Goytisolo, George Orwell, and Ana María Matute..
(Seminar 3 hours) May be repeated to a maximum of 6 units. Letter grade only (A-F).

## Portuguese Courses (PORT)

## 101A. Fundamentals of Portuguese (4)

Prerequisite or corequisite: Any Foundation course.
Fundamental skills of speaking, comprehending, reading and writing. For those who are beginning the study of Portuguese or who have had one year of high school Portuguese or equivalent.

## 101B. Fundamentals of Portuguese (4)

Prerequisite: PORT 101A or two years of high school Portuguese or equivalent. Prerequisite or corequisite: Any Foundation course.
Continuation of PORT 101A. Fundamental skills of speaking, comprehending, reading and writing.
201A. Intermediate Portuguese (4)
Prerequisite: PORT 101B or three years of high school PORT or equivalent, and completion of the Foundation requirement (or entering competency equivalent to PORT 101B and completion or concurrent enrollment in at least one Foundation course).
Continued work in speaking, pronunciation, comprehension and writing.

## 201B. Intermediate Portuguese (4)

Prerequisites: PORT 201A or four years of high school PORT or equivalent, and completion of the Foundation requirement (or entering competency equivalent to PORT 201A and completion or concurrent enrollment in at least one Foundation course).
Continued work in speaking, pronunciation, comprehension and writing, with some reading of modern writers.

## SPORTS, RECREATION AND LEADERSHIP Division of Student Services

## Dean of Students

J. Michael Hostetler

Vice President for Student Services/Dean of Students
Office
University Student Union (USU), Room 210

## Telephone

(562) 985-8670

## Website

recsports@csulb.edu
www.csulb.edu/divisions/students2
Faculty
Dave Edwards, Associate Executive Director, ASI
Rita Hayes, Director, Sports, Recreation and Leadership
J. Michael Hostetler, Associate Vice President, Student Services/ Dean of Students
Ken Kelly, Director, Student Transition and Retention Services
Jeffrey Klaus, Director, Student Life and Development
Glenn McDonald, Director of Intramural Sports
Jeane Relleve Caveness, Assistant Dean of Students

The Division of Student Services oversees a broad range of educational and student support service programs to assist students in achieving their academic goals and enhancing their personal, intellectual and social development. The division provides oversight and direction for more than 35 university programs and service areas that support students outside the classroom.

Through cooperation between the Associated Students, Inc. and the Student Services Division, a comprehensive program of intramural competition, club sports, and Sports, Recreation and Leadership courses is offered.

Open to all students, the intramural program affords students the opportunity to play in 25 different activities. To receive credit for this program, students may enroll in SRL 200. Students must participate in a minimum of three (3) different intramural tournaments or leagues per semester. As an alternative to direct participation, students can earn class credit by officiating 15 intramural games per semester. Team activities are scheduled at varied times. League competition is available in 16 of the activities for men, women and co-educational participation. Students enrolled in the class must contact the Recreational Sports Office to sign up for their activities. Upon completion of each activity, the student must notify the Sports, Recreation and Leadership office of their participation.

Students may participate in any of the club sports activities which are partially funded by the Associated Students, Inc., and administered through the Recreational Sports Office. Sports are: Aikido, alpine ski-snowboard archery, bowling, crew, ice hockey, Karate Do, outdoor adventure, rugby, sailing, Shotokan Karate, soccer, surfing, Tae Kwon Do, triathlon, volleyball (men's), ultimate Frisbee and water ski. Students registering for SRL 210 must attend regular practices and competitions, assist the club with fund raisers and adhere to club rules and regulations. For information on practice times and meeting locations, contact the individual club coach or president. Visit the Sports, Recreation and Leadership website (recsports@csuslb.edu) or visit the office at PE-20. In addition to participation in club sport activities, students may receive credit for leadership training and service performed with some universitysponsored programs.

Students may apply no more than four (4) semester units of lower-division SRL courses toward the baccalaureate degree within the 20 -unit maximum on activity units generally, except that the combined total of lower division SRL activity units must not exceed four (4) units and the total of lower division KIN activity units must not exceed eight (8) units. Upper division ATH courses, with the exception of ATH 325, may be taken one time only and not in conjunction with the lower division ATH courses. ATH 325 may be repeated to a maximum of 4 semester units and may be taken in conjunction with any other ATH course.

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

## Courses (SRL)

## 200. Intramural Activities (1)

## 210 A-M. Sport Clubs/Leadership (1)

Prerequisite: Participation/competition in sport clubs/leadership. Enrollment subject to consent of instructor or Director of Sports, Recreation and Leadership.
Athletes enrolled who fail to qualify for squad must withdraw from course. It is the student's responsibility to contact teams regarding practice times and eligibility requirements.
May be repeated to a maximum of 4 units. Credit/No Credit grading only.
A. Archery
B. Crew
C. Cycling
D. Ice Hockey
E. Martial Arts
F. Rugby
G. Sailing
H. Ski and Snowboard
I. Soccer
J. Water Ski
K. Surfing
L. Leadership
M. Triathlon

# TEACHER EDUCATION <br> College of Education 

## Department Chair

Catherine C. DuCharme
Department Office
Carrie Hernandez, Office Manager
Education Building (ED) 1, Room 13, (562) 985-4506
Teacher Preparation Advising Center
Patricia Burn, Co-Director
Jan Condou, Associate Director
Education Building (ED) 1, Room 67, (562) 985-9259
Office of Field Programs/Student Teaching
Deborah Hamm, Director
Stephanie Africano, Administrative Assistant
Education Building (ED) 1, Room 51, (562) 985-4508

## Faculty

## Professors

Haldon Anderson, John Attinasi, Ella Glenn Burnett, Jean M. Casey (Emerita, 2003), Carole A. Cox, Catherine DuCharme, Claude Goldenberg, Felipe Golez, William Jeynes, Candace Kaye (Emerita, 2004), Ruth Knudson, Marina C. Krause, Xin Li, Ping Liu, Greta Nagel, Jyotsna Pattnaik, Leslie Reese, Olga Rubio, Norma B. Tarrow (Emerita, 1998), Mary Ellen Vogt (Emerita, 2004), Linda C. Whitney

## Associate Professors

Shuhua An, Paul Boyd-Batstone, Carol Lord, Richard F. Marrs (Emeritus, 2000), Fay Shin, Linda Symcox, Steve Turley, Kaye West (Emerita, 2000), Shelley Xu

## Assistant Professor

Trinidad Lewis, Huong Tran Nguyen, Joan Theurer
Multiple Subject Credential Program Advisors
Patricia Burn, MSCP Program and MSCP Intern Program
Olga Rubio, MSCP Spanish BCLAD Emphasis
Ping Liu, MSCP Asian BCLAD Emphasis

View the Department of Teacher Education website at www. ced.csulb.edu/teacher-ed.
View the Teacher Preparation Advising Center website at www.csulb.edu/cedinfo
View the Field Programs (Student Teaching) website at www.ced.csulb.edu/fpo

The Department of Teacher Education offers coursework in credential, certificate, and Master's degree programs that include preliminary and advanced Professional preparation. The department houses the Multiple Subject Credential Program, a Reading Certificate program, a Reading and Language Arts Specialist credential program, and Master's degree programs in Early Childhood Education, Reading, and Curriculum and Instruction. Courses are offered at a variety of times, with most courses offered in the late afternoon and evening to accommodate working schedules.

## Multiple Subject Credential Program (code 200)

A teacher with a Multiple Subject Credential is authorized to teach grades pre-K through 12 in self-contained classrooms. The Multiple Subject Credential Program (MSCP) prepares students to be credentialed in the State of California for elementary and middle school instruction. The program allows for daytime field experiences in elementary classrooms and includes methodology courses and student teaching. The program can be completed in one summer and two semesters or three semesters, depending upon when prerequisites and corequisites are taken, when the student begins the program, and whether a part-time or full-time schedule is followed. Program requirements must be met within seven years of the date of admission to the program.

The department has four Preliminary Multiple Subject Credential Program (MSCP) tracks:

- Multiple Subject Credential Program
- Bilingual Cross-Cultural Language and Academic Development(BCLAD) Emphasis (Spanish, Cambodian [Khmer], Chinese [Mandarin and Cantonese], Korean, Vietnamese)
- Multiple Subject Internship Program
- Integrated Teacher Education Program (ITEP) For program information and advisement, contact the Teacher Preparation Advising Center (ED1-67; 562/985-9259) or visit the department website.


## Preliminary Credential

Successful completion of the Multiple Subject Credential Program leads to the Preliminary Credential, which is valid for five years. Requirements for the Preliminary Credential are: 1. Hold a bachelor's degree from an accredited institution.
2. Satisfy the U. S. Constitution requirement (POSC 100 or 391 or exam or equivalent course from another institution).
3. Pass CBEST (a test of basic reading, writing and math).
4. Hold a certificate of clearance (fingerprint background check).
5. Demonstrate Level I computer technology competence (embedded in program course work).
6. Demonstrate subject matter competence by passing the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
7. Complete professional preparation courses (in the MSCP) with a grade point average of 3.0 in all subject specific pedagogy (methods) courses with no grade lower than "C."
8. Complete student teaching.
9. Pass the Reading Instruction Competence Assessment (RICA) exam.
10. For Bilingual Cross-Cultural Language and Academic Development (BCLAD) candidates only: Demonstrate competence in BCLAD Domains 4 (specializEDPedagogy), 5 (target culture knowledge) and 6 (proficiency in the target language). Requirements may be met through course work or state-approved exams.

## Professional Clear Credential

Preliminary credential holders must meet state requirements for the Professional Clear credential within five years in order to continue teaching. There are currently three ways to earn the Professional Clear credential:

1. Option 1: A Commission-accredited SB 2042 Professional Teacher Induction Program (if available in the district of employment).
2. Option 2: A Beginning Teacher Support and Assessment (BTSA) Program AND the four additional requirements of advanced study of health education, teaching special populations, using technology, and teaching English learners (if available through the district).
3. If neither an Induction nor a BTSA Program is available, a fifth year of university study ( 30 post-baccalaureate units), including the four additional requirements of advanced study course work in health education, teaching special populations, using technology, and teaching English learners. Students should be aware that the four advanced study courses must be taken after issuance of the Preliminary teaching credential.

## Admission to the University and Multiple Subject Credential Program

Admission to the university and the MSCP are two separate processes. Applications to the university are available in Enrollment Services or on-line through CSU Mentor (www/csumentor.edu). Applications to the program are distributed at regularly schedule program information meetings. Meeting dates, times and locations are available on the department website. Matriculated students may be admitted to the program based on their current undergraduate or graduate status. Graduating seniors, transfer students, and returning students should apply for post-baccalaureate admission to the university with the objective of entering the credential program (identify your program objective as Multiple Subject Credential and use code 200 on the application form). Admission to the university does not constitute admission to the program.

## Multiple Subject Credential Program Structure

The MSCP is a 40 unit program separated into three successive phases. Students must complete each phase before advancing to the next one.

- Phase One - Students complete program prerequisites (and may take any or all corequisites) and submit applications. Subject matter competence must be demonstrated at the time of application to the program by submission of a passing score on all three sections of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
- Phase Two - Students complete corequisite courses and five subject specific pedagogy courses.
- Phase Three - Students complete student teaching.


## Program Admission

All candidates are required to comply with all program policies and procedures detailed in the MSCP Handbook, which is available for purchase at the Campus Copy Center located in the bookstore. Pre-program advisement and brochure materials are available in the Elementary and

Special Education Admissions and Advising Center (ED1-67). Prospective candidates should obtain a program application by attending one of the regularly scheduled group advisement meetings.

## Program Admission Requirements

1. Complete all prerequisite courses in one of the four MSCP tracks, with a minimum grade of " B " in EDEL 380.
2. Attain a grade point average of at least 2.67 in all baccalaureate and post baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester or 90 quarter units attempted.
3. Complete and pass an interview with a department faculty advisor.
4. Submit three letters of recommendation.
5. Submit a typed personal statement describing why you have chosen teaching as a career, what you hope to accomplish as a teacher, and how you view the role of the teacher.
6. Submit a negative tuberculosis skin test or chest X -ray taken within the last three years. Tuberculosis clearance must be valid through student teaching.
7. Submit one photocopy of all university and/or college transcripts.
8. Submit proof of having taken the California Basic Educational Skills Test (CBEST). Note: You must take all three parts of the test. (Passage of the exam is required to advance to student teaching.)
9. Submit proof of having demonstrated subject matter competence by passing all three subtests of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects)
10. Demonstrate proficiency in reading and writing English by
(1) attaining the minimum passing score of 37 on the reading portion of the CBEST and by (2) attaining the minimum passing score of 37 on the writing portion of the CBEST exam. (Passage of CBEST is required to advance to student teaching.)
11. Attach a copy of a Certificate of Clearance or a copy of a Certified Mail receipt as proof that an application for a Certificate of Clearance was mailed to the Commission on Teacher Credentialing or a photocopy of an emergency/ substitute teaching permit.
12. Demonstrate ability to communicate orally in English at the level required of public school teachers by demonstration of English production skills in the course EDEL 380 (EDEL 200 for ITEP candidates) and through an oral interview with department faculty. In the case of candidates for a Bilingual Emphasis Multiple Subject Credential, there is a bilingual interview requirement in English and the target language.
13. Demonstrate character and personality traits that satisfy the standards of the teaching profession and suitable aptitude for teaching in public schools through the application documentation, the personal interview, and performance in the course EDEL 380 (EDEL 200 for ITEP candidates). Candidates must continue to demonstrate appropriate character and personality traits through completion of the program.
14. Submit the application packet, including documentation, by March 1 to begin pedagogy courses in summer or fall terms, and October 1 to begin pedagogy courses in winter or spring terms. THESE DEADLINES ARE STRICTLY ENFORCED.

## Student Teaching

The final phase of the MSCP is student teaching. Student Teaching is a five days per week experience for the length of the university semester. All student teachers have one placement in a K-2 classroom where they gain experience with early literacy instruction utilizing a balanced and comprehensive approach to reading. The other placement is in an intermediate classroom (grades 3-6) or in a middle school classroom (grades 6-8). One student teaching placement must be in a public school. There are several ways to complete student teaching: one regular semester, two consecutive summers, one entire summer, or one summer and part of one regular semester. Students should be aware that there is limited availability in the summer and all individuals may not necessarily be accommodated.

A separate application is required to advance to student teaching. Applications for student teaching must be submitted in person to the Field Programs Office one semester prior to the first assignment. Application packets are distributed at the Student Teaching Application meetings. Dates, times and locations are announced in methods courses, are posted throughout the ED-1 and ED-2 buildings, and appear on the department website well in advance of the actual meeting dates. Deadlines for submitting applications to student teach are:
March 1 - for Summer/Fall Student Teaching
October 1 - for Spring Student Teaching
Students should note that these deadlines are firm. Late applications are not accepted.

## Advancement to Student Teaching Requirements

Students must meet the following requirements to advance to student teaching:

1. Completion of all program prerequisite, corequisite and subject specific pedagogy requirements in Phases 1 and 2 of one of the MSCP tracks. Students must pass all five subject specific pedagogy (methods) courses with a 3.0 grade point average and no grade lower than "C." A grade of "D" or "F" in a methods course will result in being dropped from the program. The overall grade point average must continue to meet the program admission standard.
2. Passage of the California Basic Educational Skills Test (CBEST).
3. A negative tuberculosis skin test or chest $x$-ray valid through completion of student teaching.
4. Proof of identity and character clearance (Certificate of Clearance).
5. BCLAD Emphasis students must meet all additional BCLAD program requirements.
6. For students who wish to student teach at the kindergarten level: completion of EDEL 420 with a minimum grade of "C."
7. Submission of a student teaching application by the appropriate deadline.

## Track One - Preliminary Multiple Subject Credential Program

The Preliminary credential is the basic Multiple Subject Credential. This track is comprised of foundational and subject specific pedagogy course work followed by the student teaching semester.

## Prerequisites

Must be taken concurrently: EDEL 380 (3 units), EDSP 303 (1 unit).

## Corequisites

May be taken prior to or after admission to the MSCP: EDEL 413 (2 units), EDEL/EDP/LING 431 (3 units).

## Subject Specific Pedagogy (teaching methods)

Students must be officially admitted to the MSCP to take these courses. One course must be taken off-campus at an elementary school site during daytime school hours, and at least one must be taken on-campus: EDEL 442, 452 (3 units), 462, 472, 475. (Note: The off-campus course requirement is temporarily suspended for students who plan to student teach in 2006.)

## Student Teaching

All requirements for advancement to student teaching must be met: EDEL 482 (16 units).

## Track Two - Bilingual Cross-Cultural Language and Academic Development (BCLAD) Emphasis in Spanish and Asian Languages

The Bilingual Cross-Cultural Language and Academic Development (BCLAD) Emphasis credential authorizes teachers to work in dual language classrooms or where a language other than English is required for instruction, support, and communication with parents and other professional communication. With appropriate substitutions and/or additional course work, the BCLAD Emphasis may be added to the Preliminary credential. All BCLAD Emphasis candidates must demonstrate knowledge of the target culture, specific pedagogical skills, and fluency in speaking, listening, reading and writing in the target language. A BCLAD Certificate can be added to an existing credential by passing the appropriate CLAD and/or BCLAD exams.

The BCLAD Spanish Emphasis is offered on campus or through the BCLAD in Mexico program. The BCLAD in Mexico program leads to a Multiple Subject Preliminary Credential with Spanish BCLAD Emphasis during a year of study in Querétaro, México. CSULB and nine other CSU campuses statewide offer this credential in conjunction with the Office of International Programs.

To add the international BCLAD Spanish certificate to the Preliminary credential the following courses are required: EDEL/EDSE 541, 542; SPAN 322, 445. (Note: EDEL/EDSE 541 and SPAN 322 must be taken in Mexico).

The BCLAD Asian Languages Emphasis is part of a six campus CSU consortium offering BCLAD preparation and certification in Cambodian (Khmer), Chinese (Mandarin or Cantonese), Korean, or Vietnamese. Courses are taken at CSULB and other area CSU participating campuses.

Undergraduates who wish to pursue a BCLAD Emphasis credential should complete the Liberal Studies baccalaureate program with an appropriate concentration. Spanish BCLAD Emphasis students should take the Bilingual Spanish-English concentration; Asian BCLAD Emphasis students should take the Languages Other than English or U.S. Multicultural Studies concentration.

## Spanish/English BCLAD Emphasis

The BCLAD Emphasis in Spanish prepares students for teaching in dual language and English Language Development settings where Spanish is required for instruction, support, and communication with parents and other professional communication. In addition to the Preliminary credential requirements, BCLAD Emphasis in Spanish requirements include teaching pedagogy and practicum in a second language, culture of emphasis (by coursework or examination) and fluency in Spanish (by examination). The program requires 43 units of course work plus culture and language of emphasis proficiency through additional course work and/or examination. See the Spanish BCLAD advisor for program information.

## Prerequisites

Same (4 units) as for Track One in the Preliminary credential program.

## Corequisites

Same (5 units) as for Track One in the Preliminary credential program plus EDP/LING 485 or EDP/EDEL 439 (3 units).

## Subject Specific Pedagogy

Same (15 units) as for Track One in the Preliminary credential program, with the following differences:

EDEL 442 Footnote \# 53 section recommended Substitute EDEL 452B for EDEL 452
EDEL 462, 472, and 475
Note 1: 150 documented hours as a teacher, assistant or volunteer in a multilingual setting is required in lieu of an off-campus daytime pedagogy course.
Note 2: It is recommended that EDEL 442 and 452B be taken concurrently.

## Additional Spanish BCLAD Requirements

These requirements (0-15 units) may be taken at any time, but must be completed before student teaching: Culture of Emphasis: For undergraduates, the culture component for the Spanish BCLAD is fulfilled in the Liberal Studies Bilingual concentration. Students completing a non-Liberal Studies bachelor's degree can meet this requirement by taking CHLS 340 or CHLS 350 or BCLAD Exam \#5.
Language of Emphasis: All Spanish BCLAD candidates must pass BCLAD Exam \#6 (speaking, listening, reading and writing) prior to completion of the program. SPAN $300,312,313$, and 322 are also recommended (12 units). In addition, LING 329 or EDSP 454 are strongly advised for language acquisition background.

## Student Teaching

All requirements for advancement to student teaching must be met. EDEL 482B or 482C (16 units)

## Asian Languages/English BCLAD Emphasis

The BCLAD Emphasis in Asian Languages prepares students for teaching in dual language and English Language Development settings where Chinese, Cambodian, Korean or Vietnamese is required for instruction, support, and communication with parents and other professional communication. In addition to the

Preliminary credential requirements, BCLAD Emphasis in Asian Languages requirements include teaching pedagogy and practicum in a second language, culture of emphasis (by coursework or examination) and fluency in the target language (by examination). The program requires 46 units of course work plus culture and proficiency in the target language (BCLAD Exam \#6). See the Asian Languages BCLAD advisor for program information.

## Prerequisites

Same (4 units) as for Track One in the Preliminary credential program.

## Corequisites

Same (5 units) as for Track One in the Preliminary credential program.

## Subject Specific Pedagogy

Same (15 units) as for Track One in the Preliminary credential program.

## Additional Asian BCLAD Requirements (0-6 units)

Culture of Emphasis (one for each language program) (3 units):
Chinese (Cantonese \& Mandarin) - EWS 301, Cal Poly Pomona
Cambodian - ASAM 334, CSU Long Beach
Korean - AAS 495KH, CSU Northridge or TED 495, CSU Dominguez Hills
Vietnamese - ASAM 333, CSU Long Beach
Bilingual Pedagogy (one for each language program) (3 units):
Chinese (Cantonese/Mandarin) - EDEL 400 (Cantonese/ Mandarin), CSU Los Angeles or EDEL 452C (Cantonese/ Mandarin), CSU Long Beach
Cambodian (Khmer) - EDEL 490 (Cambodian), CSU Long Beach
Korean - EED 520K (Korean), CSU Northridge or TED 515A (Korean), Cal Poly Pomona or TED 490 (Korean) CSU Dominguez Hills
Vietnamese - EDEL 452V (Vietnamese), CSU Long Beach or EDEL 448 (Vietnamese), CSU Fullerton
Note: Bilingual pedagogy and culture of emphasis courses may be taken before admission to the MSCP Program.
Language of Emphasis
Met by passage of appropriate BCLAD Exam \#6. See
program advisor for recommended courses as preparation for the exam.

## Student Teaching

All requirements for advancement to student teaching must be met. EDEL 482B or 482C (16 units).

## Track Three - Multiple Subject Internship

The intern program is for full-time teachers in districts with which CSULB has a contractual intern agreement. All students in this program must be employed by the district as the full-time teacher of record in a multiple subject classroom and have met all program and intern program admission requirements. The program requires 24 units of foundational and subject specific course work followed by 16 units of intern student teaching.

## Pre-Application Requirements

- Hold a Bachelor's degree from an accredited institution.
- Demonstrate subject matter competence by passing the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
- Meet the U.S. Constitution requirement (by course work or exam).
- Pass the CBEST.
- Be assigned full-time to a self-contained K-8 multiple subject classroom in a partner school district.
- Meet the program grade point average requirement of 2.67 overall or 2.75 in the last 60 semester or 90 quarter units.
- Complete MSCP prerequisite courses.
- Have submitted an application to the MSCP program.
- Complete an interview with the Intern Program Director.


## Prerequisites

Same (4 units) as for Track One in the Preliminary credential program.

## Corequisites (5 units)

Same (4 units) as for Track One in the Preliminary credential program.

## Subject Specific Pedagogy

Same (15 units) as for Track One in the Preliminary credential program.

## Student Teaching

All requirements for advancement to student teaching must be met. EDEL 572A and 572B (8 units each).

Note: Interns must attend a Student Teaching Application Meeting and apply to student teach by the October 1 deadline for spring and the March 1 deadline for summer and fall.

## Additional Requirements for BCLAD Interns

BCLAD Interns should refer to Track Two, above, for additional BCLAD Emphasis requirements.

## Track Four - Integrated Teacher Education Program

For the Integrated Teacher Education Program (ITEP) requirements, please refer to the Liberal Studies section of this catalog.

## Petition Process

Appeals to program decisions or requests for policy waivers are made by filing a written appeal to the Department of Teacher Education Admissions and Standards Committee. The committee reviews the written petition and supporting documentation and renders a decision. Examples of petitions typically reviewed are: waive a deadline for submission of a test score, waive an application deadline, and readmission to student teaching. Decisions of the committee are final. Students follow university policy to appeal a course final grade.

## Reading Certificate (code 415)

This certificate is granted by the California Commission on Teacher Credentialling (CCTC)

The Reading Certificate provides classroom teachers with advancEDPreparation in reading/language arts assessment and instruction, as well as theory and research in teaching reading, grades K-12. Some candidates may wish to complete the 12-
unit Reading Certificate program as a terminal objective, while others may wish to complete it as a prerequisite to the Reading/Language Arts Specialist Credential Program.

Before completion of requirements for the Reading Certificate, the candidate must provide verification of three years of full-time teaching experience in any grades preschool through adult, exclusive of student teaching, internship teaching, or teaching while holding an emergency credential or permit.

## Admission Requirements

1. Bachelors degree and Multiple Subject or Single Subject Credential, or equivalent; CLAD certification strongly recommended.
2. ENGL 481 or 482 , or current equivalent course in children's or adolescent literature.
3. A minimum grade point average of 3.0 in the last 60 units of university course work.
4. Two letters of recommendation, at least one from a supervisor.
5. An autobiography and statement of intent.
6. Interview with program faculty.
7. For secondary teachers, EDEL 452 or equivalent is strongly recommended.
8. Separate program application is required.

## Requirements

EDRG 540, 551, 558, 559.

## Reading and Language Arts Specialist Credential (code 410)

The Reading/Language Arts Specialist Credential prepares teachers to become school and district literacy leaders and supervisors. The reading/language specialist's role is multifaceted, including diagnostician, teacher of intervention for children or youth with delayed literacy development, collaborator with other school and district specialists, provider of professional development for classroom teachers, and reading program coordinator or facilitator.

## Admission Requirements

Successful completion of the Reading Certificate program, or a valid Reading Certificate, or equivalent.

## Requirements

EDRG 543, 544, 554, 556, 651
Note: All courses required for the Reading/Language Arts Specialist Credential can be applied to the MA in Elementary or Secondary Education: Specialization in Reading. See Catalog program description and the faculty advisor in the Department of Teacher Education for more information.

## Master of Arts in Education

## Option in Elementary Education

 (code EDELMA01)
## Requirements

A minimum of 30 units ( 33 units for Reading) is required with at least 21 units in the 500/600 level series at this University. In consultation with the Advisor of Curriculum
and Instruction, Early Childhood Education, Reading and Language Arts, or Middle Level Education or designated faculty, students will select a comprehensive examination track, thesis track, or project track.

## Curriculum and Instruction Specialization (30-36 units)

## Admission

In addition to applying to the university for graduate standing, candidates must submit a program-specific application. Applications are available in the College Graduate Studies Office, ED1-7 and online at http://www.ced csulb.edu/teacher-ed/resources/documents/masters.cfm.

## Prerequisite

A valid elementary teaching credential or multiple subject teaching credential, or by permission.

## Requirements

1. Methods of Social Science Inquiry (6 units): EDP 400 (3 units) and one of the following courses ( 3 units): EDP 520 or EDCI 533 (comprehensive exam track); or EDP 595 or EDP 696 (thesis track)
2. Core (15 units): EDCI 500, 505, 530, 625, and 695.
3. Concentration ( 9 units): Candidates select an area of concentration in consultation with the program advisor, tailored to their professional goals. Candidates are responsible for taking prerequisite courses if required. The concentration may be in one of the following 3 patterns:
A. Advanced Methods (9 units): EDRG 540, EDCI 560, 570; or
B. Advanced Coursework in Educational Technology: 9 units selected from the following courses: EDSP 542, ETEC $523,525,530,551,553$; or
C. 9 units of advanced coursework in a self-selected concentration chosen in consultation with the advisor (e.g. Social and Multicultural Foundations).
4. Capstone (Choose A or B option in consultation with advisor).
A. Comprehensive Examination and EDCI 695 (3 units)
B. Thesis and EDCI 698 (6 units)

## Dual Language Development Specialization (30-33 units)

## Admission

Submit a separate program application (applications available from Program Coordinator); transcripts showing posted degree, last 60 semester units or 90 quarter units, and CLAD/BCLAD certification; and an autobiographical essay.

## Prerequisites

A valid teaching credential with BCLAD/CLAD emphasis or certification, or by permission. Demonstration of bilingual proficiency, or six (6) college semester units of a language other than English, or verified equivalent.

## Requirements

1. Methods of Social Science Inquiry Requirements (6 units): EDP 400 \& EDCI 533
2. Core (15 units): EDCI 541, EDRG 551B, EDCI 532, LING 650; and EDCI 530 or EDP 574 or EDP 672
3. Concentration (6 units): 6 units of advisor-approved electives
4. Capstone Requirement (3-6 units): One of the following chosen in consultation with an advisor: EDCI 695 and Comprehensive Examination (3 units); or EDCI 698 and Thesis (6 units)

## Early Childhood Education Specialization (30-36 units)

## Prerequisites

1. EDP 301 or HDEV 307I or PSY 361 or equivalent;
2. EDEL 420; and
3. EDEL 482 or one year of documented and approved teaching experience.

## Program Requirements

1. Research Methods (6 units): EDP 400 and one of the following courses: EDP 520 (comprehensive exam track); or EDP 595 or 696 (thesis track).
2. Early Childhood Specialization Courses (21 units): EDEC 520, 521, 522, 523, 526, 621, 622.
3. One of the following chosen in consultation with the program advisor (3-6 units): EDEC 695 and Written Comprehensive Exam (3 units) or EDEC 698 Thesis ( 6 units).

## Specialization Requirements

1. All of the following: EDEC 522, 621
2. Two of the following: EDEC 523, 526, 622, or EDP 604

## Reading and Language Arts Specialization (33-36 units)

## Prerequisites

A valid multiple subject or elementary teaching credential; CLAD certification is strongly recommended. ENGL 481 or ENGL 482 or approved equivalent (can be taken concurrently with program requirements); submit a separate program application, transcripts showing posted degree and last 60 semester units or 90 quarter units; 2 letters of recommendation from educators, one of which is from a supervisor; and an autobiographical essay, and interview with program faculty

## Program Requirements

1. All of the following (27 units): EDRG 540, 544, 551, 554, 556, 558, 559, 651, and EDP 595/LING 595 (Please contact advisor prior to beginning coursework)
2. One advisor-approved elective (3 units)
3. One of the following chosen in consultation with the program advisor (3-6 units): EDRG 695 and Written Comprehensive Examination (3 units) or EDRG 698 Thesis (6 units)

## Clear Conditional Admission

1. Completion of program prerequisites.
2. A GPA of 2.85 or higher in the last 60 semester units of coursework taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.
3. University master's degree policy requires students to attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) during the first semester of residence. Students who have met this requirement during the baccalaureate degree program at CSULB or at another CSU campus are exempt.
4. To qualify for University admission in conditionally classified or classified graduate standing, a student must be accepted into a graduate degree program on a conditional basis or as clear conditional status.
NOTE: Prior to admission to the master's program, students may take up to, but no more than, 9 units of approved coursework which may apply to the master's program. There is no minimum number of units required for admission to the program.

In accordance with University policy of "Graduate Transfer Units by Extension," up to 6 units of approved extension/ continuing education or transfer credit may be used on a graduate student's program. At the option of the college/school or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/ continuing education credit if taken at CSULB or at another CSU campus.

Students must contact the advisor of Curriculum and Instruction, Early Childhood Education, or Middle Level Education Specialization once 6 units of course work has been completed to plan an official program.

Students interested in the Specialization in Reading Language Arts must contact the advisor of Graduate Reading in the Department of Teacher Education prior to enrolling in any classes.

## Advancement to Candidacy Requirements

1. All University requirements must be met;
2. Transcripts showing posted degree and the last 60 semester units or 90 quarter units;
3. Completion of all admission requirements for the Elementary Master's Program Option;
4. A minimum 3.0 overall grade-point average and a 3.0 grade point average in all units undertaken for the program (at least 6 units) with no incomplete grades;
5. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
6. Personal-Professional Attributes

Applicants are required to submit a typed essay of not less that three pages, double spaced. The essay shall address the following; how the program will help them make a contribution to the profession; experience in the profession; and any other information relevant to their personal/professional plans. In addition, students will complete a structured interview with the designatEDProgram advisor;
7. An approvEDPlan of study completed with the Curriculum and Instruction, Early Childhood Education, Reading and Language Arts, or Middle Level Education graduate advisor be on file in the Graduate Office;
8. A student must be enrolled in regular session or in the summer session in which advancement to candidacy takes place. Please refer to the "Graduate Degrees and Other Post Baccalaureate Studies" section of the catalog for University advancement-to-candidacy requirements.

## Option in Secondary Education (code EDSEMA01)

A minimum of 30 units for Curriculum and Instruction Secondary Specialization and a minimum of 33 units for Reading and Language Arts Specialization is required with at least 21 units in the 500/600 level series at this University. In consultation with the advisor of Curriculum and Instruction or

Reading and Language Arts or designated faculty, students will select a comprehensive exam track or thesis track.

## Curriculum and Instruction Specialization (30-36 units)

## Admission

In addition to applying to the university for graduate standing, candidates must submit a program-specific application. Applications are available in the College of Education Graduate Studies Office and online at http://www. ced.csulb.edu/teacher-ed/resources/documents/masters.cfm.

## Prerequisite

A valid secondary education or single subject teaching credential, or by permission.

## Requirements

1. Methods of Social Science Inquiry (6 units): EDP 400, 520
2. Core (15 units): EDCI 500, 505, 530, 625, 695 (to be taken
in final semester)
3. Concentration (9 units)

Candidates select an area of concentration, in consultation with the program advisor, tailored to their professional goals. A concentration must follow a pattern or theme; a disparate set of unrelated courses is not a concentration. Thesis candidates should shape their concentration round research methodology and content related to their thesis topic. Candidates must submit a written statement containing a coherent rationale for and description of the concentration sequence at the time of advancement to candidacy. Concentrations may follow one of the patterns listed below or may be uniquely devised by the candidate. A concentration must have the approval of the program advisor. Candidates are responsible for taking prerequisite courses if required.
A. Educational Technology (e.g., ETEC 523, 551, 553, 623).
B. Educational Foundations (e.g., EDP 573, 574, 574, 576).
C. Advanced course work in the candidate's teaching discipline.
D. Advanced course work toward a Supplementary Authorization.
E. Advanced course work toward the Professional Clear Credential.
F. Advanced course work toward CLAD certification.
G. Advanced course work in middle level education.
H. Research methods courses in preparation for the thesis (e.g., EDP 595, 596, 696; EDCI 533)
4. Capstone Experience

Candidates select one of the following capstone experiences in consultation with the program advisor. Selection should be made at the time of advancement to candidacy in order to develop a program plan consistent with the selected capstone experience.
A. Comprehensive Examination
B. Thesis. (Candidates take EDCI 698 for two semesters while writing a thesis, for a total of 6 units; candidates may need to take additional research methodology courses in order to prepare for thesis research and writing.)

## Reading and Language Arts Specialization (33-36 units)

## Prerequisites

A valid secondary education or single subject teaching credential; CLAD certification is strongly recommended. ENGL 482 or approved equivalent (can be taken concurrently with program requirements); submit a separate program application, transcripts showing posted degree and last 60 semester units or 90 quarter units; 2 letters of recommendation from educators, one of which is from a supervisor; and an autobiographical essay, and interview with program faculty.

## Program Requirements

1. All of the following ( 27 units): EDRG 540, 544, 551, 554, 556, 558, 559, 651 and EDP 595/LING 595 (Please contact advisor prior to beginning coursework)
2. One advisor-approved elective (3 units)
3. One of the following chosen in consultation with the program advisor (3-6 units): EDRG 695 and Written Comprehensive Examination (3 units) or EDRG 698 Thesis (6 units)

## Clear Conditional Admission

1. Completion of program prerequisites.
2. A GPA of 2.85 or higher in the last 60 semester units of coursework taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.
3. University master's degree policy requires students to attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) during the first semester of residence. Students who have met this requirement during the baccalaureate degree program at CSULB or at another CSU campus are exempt.
4. To qualify for University admission in conditionally classified or classified graduate standing, a student must be accepted into a graduate degree program on a conditional basis or as clear conditional status.

## Please Note:

Prior to admission to the master's program, students may take up to, but no more than, 9 units of coursework which may apply to the master's program. There is no minimum number of units required for admission to the program.
In accordance with University policy of "Graduate Transfer Units by Extension", up to 6 units of approved extension/ continuing education or transfer credit may be used on a graduate student's program. At the option of the college/school or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/continuing education credit if taken at CSULB or at another CSU campus.
Students must contact the advisor of Curriculum and Instruction Specialization no later than completing 6 units to plan an official program.
Students interested in the Specialization in Reading Language Arts must contact the advisor of Graduate Reading in the Department of Teacher Education prior to enrolling in any classes.

## Advancement to Candidacy Requirements

1. All University requirements must be met;
2. Transcripts showing posted degree and the last 60 semester units or 90 quarter units;
3. Completion of all admission requirements for the Secondary Master's Program Option;
4. A minimum 3.0 overall grade-point average and a 3.0 grade point average in all units undertaken for the program (at least 6 units) with no incomplete grades;
5. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
6. Personal-Professional Attributes: Applicants are required to submit a typed essay of not less that three pages, double spaced. The essay shall address the following; how the program will help them make a contribution to the profession; experience in the profession; and any other information relevant to their personal/professional plans. In addition, students will complete a structured interview with the designatEDProgram faculty advisor;
7. An approvEDPlan of study completed with the Curriculum and Instruction or Reading and Language Arts graduate advisor must be on file in the Graduate Office;
8. A student must be enrolled in regular session or the in summer session in which advancement to candidacy takes place. Please refer to the "Graduate Degrees and Other Post Baccalaureate Studies" section of the catalog for University advancement-to-candidacy requirements.

## Elementary Education Courses (EDEL)

## LOWER DIVISION

## 100. Introduction to Teaching and Learning in Diverse

 Contemporary Classrooms (1)Prerequisite: Acceptance in the Integrated Teacher Education Program.
Addresses the qualities of an effective teacher, components and purposes of an effective professional portfolio, and critical issues in diverse contemporary classrooms.
Ten hours of field experience. Letter grade only (A-F).
200. Introduction to the Teaching Profession (3)

Introduction to the concepts and issues related to K-8 education in a democratic society.
Minimum 45 hours structured fieldwork in approved elementary, self-contained classroom required. A grade of "B" or better required for admission to the Multiple Subject Credential Program. Letter grade only (A-F).

## UPPER DIVISION

## 300. Equity and Justice in Diverse Schools (3)

Prerequisites: EDEL 100 and 200, or approved articulated course from non-ITEP credentialing pathways; admission to Multiple Subject Credential Program.
Intended for ITEP students only. Addresses equity, social justice, cultural, and religious diversity. Models of English Language Development, including bilingual education, are introduced. Letter grade only (A-F).
340. Subject Matter Overview for Multiple Subjects (3)

Prerequisites: Baccalaureate degree and CBEST passed.
Overview of content from seven areas: History and Social Studies, Human Development, Literature and Language Studies, Math, Physical Education, Science, Visual and Performing Arts. Analysis and practice in short essay writing and test-taking strategies.
May be repeated to a maximum of 6 units.

## 360. Mathematical Concepts of Numbers and Geometry (3)

Unifying concepts of mathematics for elementary teachers. Includes the development of concepts of number, number operations, number properties, problem solving, geometric configurations, constructions, relationships, and applications with metric measures.
Not open to students with credit in EDEL 361 or 362. Letter grade only (A-F).

## 379. Sociolinguistics and Schooling (3)

Prerequisites: LING 329 or equivalent.
Study of language variation in relation to standard language development in society and individuals. Key sociolinguistic concepts: dialect, speech event, repertoire, language community, prescriptive vs. descriptive. Applications to verbal classroom language and the development of academic speaking, reading, and writing.
Letter grade only (A-F). Same course as LING 379.

## 380. Teaching and Learning in a Democratic Society (3)

Corequisite: EDSP 303.
Professional, historical, social, philosophical, legal, and political concepts and issues related to K-8 education in contemporary society. 45 hours structured fieldwork in approved elementary, selfcontained classroom required.
Required prerequisite for admission to the Multiple Subject Credential Program. Letter grade only (A-F).

## 413. Developmentally Appropriate Teaching Practices

 (2)Research-based theories and principles of development, learning, and motivation; developmentally appropriate teaching practices; subject specific pedagogy in health and physical education.
A minimum of 10 hours fieldwork in K-8 classrooms with a minimum $25 \%$ English Learners required. Letter grade only (A-F).
*420. Teaching and Learning in the Kindergarten and Primary Grades (3)
Theories, research, policies and current trends/debates surrounding teaching and learning in the kindergarten and primary grades. Integrates curriculum, pedagogy, and assessment with a special focus on diverse learners in the kindergarten and primary grades.
Ten hours of field work required.

## 429. Language, Learning, and the Developing Child: A Cross-Cultural Perspective (3)

Explores the communicative-linguistic, cognitive, physical, and socio-emotional development of the child from the prenatal to adolescent periods across diverse cultures with an emphasis on language acquisition and the learning process.
Not open for credit to students currently enrolled in the Liberal Studies program. Letter grade only (A-F). Same course as LING 429, CDFS 409, and EDP 428.

## *430. Social and Cultural Diversity in Educational Settings (3)

Examination of personal attitudes toward distinct groups of people. Study of historical and structural factors that either promote or diminish equal human worth and either empower or oppress people based on class, race/ethnicity, gender, sexual orientation, ability, language, or religion.
Same course as EDP 432.
431. Cultural and Linguistic Diversity in Schools (3)

Multicultural education, including concepts of culture, educational equity, social justice, multiple forms of diversity, and anti-bias/antiracist curriculum. Models of English language acquisition, bilingual education theory, and instructional accommodations for diverse students.
Ten hours fieldwork required. Letter grade only (A-F). Same course as EDP 431 and LING 431.

## 439. SDAIE: Specially Designed Academic Instruction in English (3)

Theories of second language acquisition and practical application, including methods of teaching content to English language learners, reading and writing strategies, and curriculum development with applications to $\mathrm{K}-12$ teaching.
Letter grade only (A-F). Same course as EDP 439 and EDSE 439.
*442. Teaching and Learning Language Arts, K-8 (RICA) (3)

Prerequisite: Admission to the Multiple Subject Credential Program.
Language arts and visual/performance arts curriculum; developmentally appropriate practice, assessment- and researchbased instruction in culturally/linguistically diverse classrooms; English Language Development; SDAIE; relationships among oral language, writing, spelling, reading, literature, and technology. 10 hours fieldwork in K-8 classroom with a minimum 25 \% English Learners required.
Letter grade only (A-F).

## *452. Teaching and Learning Reading, K-8 (RICA) (3)

Prerequisite: Admission to the Multiple Subject Credential Program or Education Specialist Credential Program.
Content, methods, and assessment for teaching reading to all students in culturally diverse, literature-based classrooms, including phonemic awareness, phonics, vocabulary development, comprehension, diagnosis, and the use of technology. 10 hours fieldwork in K-8 classroom with a minimum 25\% English learners required.
Letter grade only (A-F).

## *452B. Teaching Reading in Spanish and English, K-8 (BCLAD) (1-3)

Prerequisite: Admission to the Multiple Subject Credential BCLAD (bilingual) Program.
Theory, research, and practice of teaching reading in two languages, including transfer of literacy skills from L1 to L2. Examines teacher beliefs and assumptions about literacy development among language minority students.
Letter grade only (A-F).
452C. Biliteracy: Teaching English and Chinese K-8 (3)
Prerequisites: Admission to the Multiple Subject Credential Program or consent of instructor.
Content, methods, and assessment for teaching literacy in K-8 English and Chinese bilingual settings. Course lectures, activities, and assignments in English and Chinese. Ten hours fieldwork in elementary bilingual and sheltered English/Chinese classrooms required.
Letter grade only (A-F).
452K. Biliteracy: Teaching Khmer and English, K-8 (3)
Prerequisite: Admission to the Multiple Subject Credential Program or Education Specialist Program.
Content, methods, and assessment for teaching literacy in K-8
English and Khmer bilingual settings. Comprehension, phonics, vocabulary and other decoding skills. Writing and related encoding skills including spelling, grammar, and handwriting. In English and Khmer, when applicable.
Letter grade only (A-F).

452V. Biliteracy: Teaching Vietnamese and English, K-8 (3)

Prerequisite: Admission to the Multiple Subject Credential Program or Education Specialist Program.
Content, methods, and assessment for teaching literacy in K-8 English and Vietnamese bilingual settings. Comprehension, phonics, vocabulary and other decoding skills. Writing and related encoding skills including spelling, grammar, and handwriting. In English and Vietnamese, when applicable.
Letter grade only (A-F).

## 458. Newspaper in Education (1-3)

Use of the daily newspaper as an instructional tool in the classroom. Newspaper articles, features and editorials as a means of providing current content and bases for improvement of reading skills, interests, critical thinking and problem solving. Understanding mass media.
Same course as EDSE 458.

## *462. Teaching and Learning Mathematics, K-8 (3)

Prerequisites: Admission to the Multiple Subject Credential Program. Learning theories, research, and instructional practices for teaching mathematics to all students in culturally and linguistically diverse classrooms. Ten hours fieldwork in K-8 classroom with minimum 25\% English learners required.
Letter grade only (A-F).
*472. Teaching and Learning History-Social Science, K-8 (3)

Prerequisites: Admission to the Multiple Subjects Credential Program.
Theory, research, and content for standards-based history-social science teaching in diverse classrooms. 10 hours fieldwork in K-8 classroom with a minimum 25\% English learners required.
Letter grade only (A-F).

## 473. Content Area Teaching in Diverse Classrooms (1)

Prerequisite: Admission to any Multiple Subject Program pathway. Prerequisite or Corequisite: EDEL 452, 462, 472 or equivalent.
Supplement to methods courses in multiple subject, bilingual, and intern programs. Theory and practice for teaching all content areas. Specific vocabulary, discourse practice and sheltered strategies for preparation of multilingual and multicultural lessons and units for diverse learners.
Letter grade only (A-F). May be repeated to a maximum of 2 units with different topics.
A. ITEP
B. Spanish
C. Chinese
D. Vietnamese
E. Cambodian (Khmer)
F. Korean

## *475. Teaching and Learning Science, K-8 (3)

Prerequisite: Admission to the Multiple Subject Credential Program. Completion of TPA Task 3 is partial fulfillment of this course.
Methods for teaching elementary school science. Development of sequenced, integrated, inquiry-based science lessons addressing the needs of all learners. 60 contact hours, however face-to-face contact is less due to an on-line distance component (see Schedule of Classes footnote). 10 hours fieldwork in K-8 classroom with a minimum 25\% English learners.
Letter grade only (A-F). Course fee may be required. Same course as SCED 475.

## 482. Student Teaching in Diverse Classrooms (8)

Prerequisites: Admission to 2042 Multiple Subject Credential Student Teaching including successful completion of Teacher Performance Assessment (TPA) Tasks 1 and 2.
Integrated student teaching in K-8 public schools with separate eight week assignments at two of the following levels: K-2, 3-5, or 6-8.

Emphasis on teaching in diverse, mainstreamed classrooms. Weekly seminar.
Credit/No Credit grading only with an equivalent grade of "A" or "B" and satisfactory completion of TPA Task 4 required for credit. May be repeated to a maximum of 16 units.

## 482B. Student Teaching in Bilingual Classrooms (8)

Prerequisite: Admission to Multiple Subject Credential BCLAD Student Teaching.
Teaching assignment for one semester in a public school in grades K-6 with assignments at primary and intermediate levels, or one semester in a designated bilingual classroom. Emphasis on teaching experiences with children of limited English proficiency and on primary language instruction. Weekly seminar.
Credit/No Credit grading only, with an equivalent grade of "A" or "B" required for credit. May be repeated to a maximum of 16 units in the same semester.

## 482C. Student Teaching in Bilingual Classrooms (8)

Prerequisite: Admission to Multiple Subject Credential BCLAD Student Teaching.
Teaching assignment for one semester in a public school in grades K -6 in a designated bilingual classroom under an emergency credential, with assignments at the primary and intermediate levels. Emphasis on teaching experiences with limited-English proficient speakers and primary language instruction.
Weekly seminar. Credit/No Credit grading only, with an equivalent grade of " $A$ " or " $B$ " required for credit. May be repeated to a maximum of 16 units in the same semester.

## 482D. Student Teaching in Diverse Classrooms (8)

Prerequisite: Admission to 2042 Multiple Subject Credential Student Teaching including successful completion of Teaching Performance Assessment Tasks 1 and 2.
One semester integrated student teaching assignment in a K-8 public school with assignments at two of the following levels: K-2, 3-5, or 6-8. Emphasis on experiences in diverse, mainstreamed classrooms with English Learners. One assignment includes gifted students, students with disabilities, or EL students.
Weekly seminar included. Credit/No Credit grading only with an equivalent grade of "A" or "B" required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in different semesters.

## 482E. Student Teaching in Bilingual Classrooms-Asian Languages (8)

Prerequisite: Admission to Multiple Subject Asian BCLAD Credential Program Student Teaching.
Integrated student teaching assignment in a K-8 public school at two of the following: K-2, 3-5, or 6-8 (one must be in an Asian Language/English bilingual setting). Emphasizes experiences in diverse, mainstreamed classrooms with English Learners whose native language is one of the following: Cantonese, Khmer, Korean, Mandarin, or Vietnamese.
Seminar included. Credit/No Credit grading only with an equivalent grade of "B" or better required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in the same semester.

## 482F. Student Teaching in Spanish Dual Language Development Classrooms (8)

Prerequisite: Admission to Multiple Subject Credential Student Teaching.
One semester integrated student teaching in a K-8 public school with assignments at two of the following: K-2, 3-5, or 6-8. Emphasizes experiences in diverse classrooms with English Learners. Practicum in using Spanish for instruction. Spanish primary language management for explanation, clarification, and review.
Seminar included. Credit/No Credit grading only with an equivalent grade of "B" or better required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in the same semester.

## *490. Special Topics in Elementary Education (1-3)

Topics of current interest in elementary education selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics will be announced in the Schedule of Classes.

## *497. Independent Study (1-3)

Prerequisites: Consent of instructor and department chair.
Independent study undertaken under the supervision of a faculty member.

May be repeated to a maximum of 6 units but no more than 3 units applicable to credential or major requirement.

## GRADUATE LEVEL

## 572A. Multiple Subject Internship (8)

Prerequisites: Admission to 2042 Multiple Subject Internship and advancement to Intern Student Teaching.
The Intern is a full-time teacher in a public school district with which CSULB has an intern agreement. Intern Student Teaching is a twosemester or one-semester culminating fieldwork experience.
Weekly seminar. Credit/No Credit grading only with an equivalent grade of "A" or "B" required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in different semesters.

## 572B. Multiple Subject Internship (8)

Prerequisites: Admission to 2042 Multiple Subject Internship and advancement to Intern Student Teaching.
The Intern is a full-time teacher in a public school district with which CSULB has an intern agreement. Intern Student Teaching is a twosemester or one-semester culminating fieldwork experience.
Weekly seminar. Credit/No Credit grading only with an equivalent grade of "A" or "B" required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in different semesters.

## 599. Special Topics in Teacher Education (1-3)

Study of a special topic in teacher education. Students must be enrolled in a Masters or Advanced Credential or Specialist Program.
Topics will be announced in the Schedule of Classes. Letter grade only A-F). May be repeated to a maximum of 6 units with different topics.

## 693. Developing Teacher Leadership in Middle Level Education (3)

Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or consent of instructor.

Involves administrators and teachers in developing middle level teacher leadership through the lens of teacher empowerment. Theory and practice of collaborative and action research models as tools for school improvement.
Letter grade only (A-F). Same course as EDAD 693 and EDMS 693.

## Education Middle School Courses (EDMS)

## GRADUATE LEVEL

## 582. Concepts, Structures, and Programs for Middle

 Level Schools (3)Prerequisites: Middle level teaching experience, admission to an approved masters program, or consent of the instructor.
Advanced exploration of the philosophical, historical, and societal foundations of middle level education. Study and evaluation of existing middle level programs, materials, curriculum, and future trends. Design of professional development for middle level teachers.
Letter grade only (A-F).

## 584. Issues in Middle Level Education (3)

Prerequisites: Middle level teaching experience, admission to an approved masters program, or consent of the instructor.
Intensive study of middle school issues emphasizing research perspectives and factors influencing the future direction of middle level education. Topics include: instruction, assessment, diversity, society's impact, parental involvement, and risk behaviors.
Letter grade only (A-F).

## 693. Developing Teacher Leadership in Middle Level

 Education (3)Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or consent of instructor.

Involves administrators and teachers in developing middle level teacher leadership through the lens of teacher empowerment. Theory and practice of collaborative and action research models as tools for school improvement.
Letter grade only (A-F). Same course as EDAD 693 and EDEL 693.

## 695. Project in Middle Level Education (3)

Prerequisites: Advancement to candidacy, EDP/LING 595, approval by the program coordinator, department chair, and associate dean, and written appliation to the Graduate Office.
Culminating masters project in middle level education to be determined in conjunction with the program advisor. Seminar and individual meetings.
Seminar and individual meetings.

## Secondary Education Courses (EDSE)

## LOWER DIVISION

## 157. Critical Thinking and Analytical Reading (3)

Prerequisite/Corequisite: ENGL 100 or equivalent.
Critical thinking and advanced reading comprehension. Includes laboratory experience and access to resource materials.

## UPPER DIVISION

## 339. Linguistics for Crosscultural Language and

 Academic Development in Secondary School Settings (3)Principles of language structure, variation and usage for educators. First and second language acquisition. Social, cultural and political issues regarding language behavior in middle and high schools. Influences on language attitudes, maintenance and shift. Letter grade only (A-F). Same course as LING 339.
435. United States Secondary Schools: Intercultural Education (3)
Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Critical reflection on multicultural education in a diverse society. Philosophy, history and sociology of education as fundamental to understanding contemporary secondary schools. Curriculum and student populations in the context of issues and controversies in education. Approved CLAD Certificate course (Domain 3).
Fifteen hour fieldwork requirement. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 436. Curriculum, Instruction, Assessment and Classroom Management (3)

Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Explores systematic instruction, theories of learning, curriculum development, teaching strategies, assessment and evaluation of student progress, classroom management and discipline, and establishing successful learning environments for all students.
Fifteen hour fieldwork requirement. Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 439. SDAIE: Specially Designed Academic Instruction in English (3)

Theories of second language acquisition and practical application, including methods of teaching content to English language learners, reading and writing strategies, and curriculum development with application to K-12.
Letter grade only (A-F). Same course as EDEL 439 and EDP 439.
457. Reading and Writing in the Secondary School (3)

Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Emphasis on reading and writing assessment and instruction; textbook selection; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; English Language Development; the reading needs of less prepared, English language, and accelerated learners; and issues of diversity and equity.
Minimum fifteen hours of field work required. Letter grade only (AF). May be repeated to a maximum of 6 units.

## 458. Newspaper in Education (1-3)

Use of the daily newspaper as an instructional tool in the classroom. Newspaper articles, features and editorials as a means of providing current content and bases for improvement of reading skills, interests, critical thinking and problem-solving. Understanding mass media.
Same course as EDEL 458.
*490. Special Topics in Secondary Education (1-3) Prerequisite: Consent of instructor.
Topics of current interest in secondary education selected for intensive study. A student may enroll for a maximum of six units for certificate and degree purposes, subject to suitable change in course content.
Topics will be announced in the Schedule of Classes. May be repeated to a maximum of 6 units with different topics.
*491. Special Topics in Teacher Education (3)
Prerequisite: Consent of instructor.
Topics of current interest in teacher education selected for intensive study. A student may enroll for a maximum of six units for certificate and degree purposes, subject to suitable change in course content.
Topics will be announced in the Schedule of Classes. (Lecture 2 hours, laboratory 2 hours.)

## *497. Independent Study (1-3)

Prerequisites: Consent of instructor and department chair. Independent study undertaken under the supervision of a faculty member.
May be repeated to a maximum of 6 units, but no more than 3 units applicable to credential or major requirement.

## GRADUATE LEVEL

## 541. Designing Curriculum and Instruction in Primary and Second Language Settings (3)

Prerequisites: A valid California CLAD teaching credential or equivalent.
Principles of curriculum development, including primary, dual, and second language teaching and learning. Critical literacy. Includes research and program design internationally. (Offered in US or Mexico.)
Ten hours fieldwork required. Letter grade only (A-F). Same course as EDCI 541.

## 542. Situated Learning in Bilingual Contexts (3)

Prerequisites: A valid California CLAD teaching credential or equivalent.
Analysis of educational models and hands-on experiences in Spanish language and bilingual-bicultural settings in Mexican schools. Interaction with Mexican educators and families. (Offered in Mexico with fieldwork.)
Letter grade only (A-F). Same course as EDCI 542.

## 599. Special Topics in Teacher Education (1-3)

Study of a special topic in Teacher Education. Students must be enrolled in a Masters or Advanced Credential or Specialist Program.
Topics will be announced in the Schedule of Classes. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics (depending on program requirements).

## Curriculum and Instruction Courses (EDCI)

## GRADUATE LEVEL

## 500. Studies in Curriculum and Instruction (3)

Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor. Must be taken during the first or second semester in the Master's Program.
Introduction to graduate study. Overview of curriculum and instruction as a field of inquiry. Reading critically and conducting educational research. Using reflective strategies to analyze and improve professional practice.
Letter grade only (A-F).
505. History of Education in the United States (3)

Prerequisites: Admission to an approved masters program or consent of the instructor. Must be taken during the first or second semester.
Advanced exploration of the major historical and philosophical paradigms of elementary and secondary education in the United States from which contemporary educational reform movements, curricula, and instructional practices have emerged.
Letter grading only (A-F).
510. Supervision and Coaching in Educational Settings (3)

Utilizes historical, empirical, and theoretical frameworks to look at supervisory and coaching practice in educational settings. Topics include the development of the field of supervision, historical approaches to supervision, traditional and current models of supervision, and supervisory behaviors and practices.
Letter grade only (A-F).

## 530. Cross-cultural Education: US and Global Perspectives (3)

Prerequisite: Admission to an approved Master's program or consent of the instructor.
Critical analyses of cultural diversity, educational equity, and global interdependence to enhance cross-cultural competence. Students will investigate research literature, apply research-based knowledge to their educational practice, and infuse cross-cultural concepts, skills, and attitudes into the K-12 curriculum.

Letter grade only (A-F).

## 532. Socialization of Literacy in More Than One Language (3)

Prerequisites: Admission to the Masters of Education program, Option in Elementary Education, Dual Language Specialization, or consent of the instructor.
Examination of the social and cultural relationships between language and text from early utterances to adult literacy processes. Analyses of the contexts and conditions that influence literacy development for first and second language learners.
Ten hours fieldwork required. Letter grade only (A-F).
533. Action Research Methods: Teachers as Inquirers (3)

Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor.
Examination of goals and features of action research, with focus on developing skills in data collection and analysis in order to support sustained action research as a teacher/researcher in classroom settings.
Letter grade only (A-F).

## 541. Designing Curriculum and Instruction in Primary

 and Second Language Settings (3)Prerequisites: A valid California CLAD teaching credential or equivalent.
Principles of curriculum development, including primary, dual, and second language teaching and learning. Critical literacy. Includes research and program design internationally. (Offered in US or Mexico.)
Ten hours fieldwork required. Letter grade only (A-F). Same as EDSE 541.

## 542. Situated Learning in Bilingual Contexts (3)

Prerequisites: A valid California CLAD teaching credential or equivalent.
542. Situated Learning in Bilingual Contexts (3)

Analysis of educational models and hands-on experiences in Spanish language and bilingual-bicultural settings in Mexican schools. Interaction with Mexican educators and families. (Offered in Mexico with fieldwork.)
Letter grade only (A-F). Same course as EDSE 542.
560. Advanced Study in Mathematics Education (3)

Prerequisites: EDCI 500 and admission to an approved masters program or consent of the instructor.
Advanced study and research in elementary school mathematics with an emphasis on content, methods, and materials. Students participate in an investigation and appraisal of contemporary mathematical content, effective teaching methods, appropriate materials, assessment, and enrichment of the elementary mathematics program.
Letter grade only (A-F).
570. Advanced Studies in Teaching History-Social Science (3)
Prerequisites: EDEL 472; EDP 400, EDP 520 or 696, or equivalent.
Intensive study of selected topics related to teaching and learning history-social science. Students engage in a systematic inquiry into their own practice as they conduct a teacher action research project.
Letter grade only (A-F).

## 615. Contemporary Issues in Elementary and Secondary Education (3)

Prerequisite: EDCI 500 and admission to an approved masters program or consent of the instructor.
Advanced analysis of current trends and issues in specific areas of elementary and secondary education. In-depth exploration of research perspectives and societal factors that influence the direction of elementary and secondary education in America.

Letter grade only (A-F).
625. Analysis of Curriculum, Instruction, and Assessment (3)

Prerequisites: EDCI 500, 505, EDP 400; and one of the following EDP 520,595 , or 696 or EDCI 533; consent of the instructor.
Advanced study of curriculum design, instructional processes, and student assessment through analysis of theory and research on teaching and learning. California K-12 Content Standards and the California Standards for the Teaching Profession are used to align curriculum, instruction, and assessment.
Letter grade only (A-F).

## 695. Seminar in Curriculum and Instruction (3)

Prerequisites: EDCI 500, 505, 625 and advancement to candidacy, or by permission of instructor.
Studies in curriculum and instruction. Course content will be determined by the instructor offering each section.
Offered on an irregular basis; consult the Schedule of Classes. Letter grade only (A-F).

## 697. Directed Research in Curriculum and Instruction (1-3)

Prerequisites: Permission of instructor, department chair, and associate dean.
Individual research or intensive study under the guidance of a faculty member. A student may enroll for one to three units to a maximum of six units for certificate and degree purposes, subject to a suitable change in course content. Application for enrollment must be made by October 1 for the spring semester or by March 1 for the fall semester or summer session.
May be repeated to a maximum of 6 units in different semesters.
698. Thesis Study in Curriculum and Instruction (3)

Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair and associate dean.
Planning, preparation, and completion of thesis under supervision of a thesis committee. Application for enrollment must be made in the Graduate Studies Office by October 1 for the spring semester or by March 1 for the fall semester or summer session.
Credit/no credit grading only. May be taken for a maximum of 6 units in different semesters.

## Early Childhood Education Courses (EDEC)

## GRADUATE LEVEL

520. Early Childhood Curriculum and Assessment: Critical Perspectives (3)
Examines the history of competing movements in American early childhood curriculum thinking, program models, and current debates. Develops curriculum and assessment measures that integrate antibias, inclusive, and multicultural and global education into a unified approach.
Ten hours of fieldwork required. Letter grade only (A-F).

## 521. Historical and Contemporary Perspectives in Early Childhood (3)

Historical and contemporary perspectives in early childhood education and their impact on ECE programs, practices, and policies. Role of national/global organizations in institutionalizing and promoting various ECE perspectives and images of childhood. Debates over perspectives.
Ten hours of field work required. Letter grade only (A-F).

## 522. Parent Education and Involvement in Educational

 Environments (3)Analysis of theories, research, issues, policies, programs, and practices pertaining to parent involvement in diverse and inclusive educational settings. Students design and implement home-based and school/center-based parent involvement activities. 10 hours of fieldwork required.

Ten hours of field work required. Letter grade only (A-F).
523. Leadership, Advocacy and Supervision of Early Childhood Programs (3)
Discussion of various types of ECE programs, program development and implementation, different management approaches and leadership styles, and advocacy for young children and their families. Analysis of position statements and state documents pertaining to ECE programs.
Ten hours of field work required. Letter grade only (A-F).
526. Advanced Study of Infant and Toddler Programs (3)

Prerequisites: EDP 301 or consent of instructor.
Analysis of theories, research, and policies on infant and toddler care and education. Discussion of curriculum, environmental plan, and assessment for infant and toddlers. Infant/toddler program assessment.
Ten hours of fieldwork required. Letter grade only (A-F).
621. Research Seminar in Early Childhood Education (3)

Prerequisites: EDP 400 and teaching experience.
Discussion and analysis of research including qualitative research design and review of literature on topics pertaining to the field of Early Childhood Education.
Ten hours of field work required. Letter grade only (A-F).
622. Seminar in Early Childhood Care and Education: International Perspectives (3)
Discussion of ECE programs around the world. Analysis of social, political, and economic influences on policies related to the care and education of young children. Examines the role of international and national agencies in protecting children's welfare and education.
Letter grade only (A-F).

## 695. Seminar in Early Childhood Education (3)

Prerequisites: Advancement to candidacy, approval of the Early Childhood Education program advisor, and written application submitted to the Graduate Studies Office by March 1 for the fall semester or by October 1 for the spring semester.
For qualified candidates preparing to take the comprehensive examination. Consideration of curriculum role of the school and topics related to the effectiveness and excellence in early childhood education.
Letter grade only (A-F).

## 697. Directed Research in Early Childhood Education (1-3)

Prerequisites: Permission of instructor, department chair, and associate dean.
Individual research or intensive study under the guidance of a faculty member.
Application for enrollment must be made by October 1 for the spring semester or by March 1 for the fall semester or summer session. May be repeated to a maximum of 6 units in different semesters for certificate and degree purposes, subject to suitable change in course content.

## 698. Thesis Study in Early Childhood Education (3)

Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair, and associate dean. Planning, preparation, and completion of thesis under supervision of a thesis committee.
Application for enrollment must be made in the Graduate Studies Office by October 1 for the spring semester or by March 1 for the fall semester or summer session. Credit/no credit only. May be repeated to a maximum of 6 units in different semesters.

## Reading Education Courses (EDRG)

## GRADUATE LEVEL

## 540. Advanced Studies in Literacy (3)

Prerequisite: A valid teaching credential or admission to an apporved masters, certificate, or advanced credential program; or consent of instructor.
Emphasizes advanced study of literacy research, theory, and practice. Survey of issues of first and second language acquisition/development, and curriculum trends in literacy.
Letter grade only (A-F).

## 543. Integration of Technology in Reading/Language Arts

 (3)Prerequisites: EDP 443 or ETEC 444 or equivalent; or a course approved by CTC, or a course approved by CCTC to meet the Level I technology requirement or approval of the instructor.
Investigation and evaluation of software and media programs for reading/language arts. Current issues in technology, change strategies for staff development, integration of technology in the curriculum. Letter grade only (A-F).

## 544. Foundations of Literacy Research (3)

Prerequisite: California Reading Certificate or consent of instructor. Introduction to critical analysis of literacy research, with emphasis on classic and contemporary studies.
Includes experimental designs, descriptive studies, case studies, correlational research, ethnographies, and the teacher-as researcher. Letter grade only (A-F).
545. Seminar: Current Issues, Trends, and Applied Theory in Reading/Language Arts Pedagogy (3)
Prerequisite: EDEL 452 or EDSE 457.
Current trends in the teaching of reading in K-12 schools. Emphasis on applied theory to support important trends such as early intervention and literacy programs. Issues of language and cultural diversity, adolescent reading, adult literacy, family literacy issues.
Letter grade only (A-F).
551. Assessment and Instruction in Reading and Writing (3)

Prerequisites: Admission to Reading Certificate Program or consent of instructor.
Comprehensive study of literacy assessment and instruction including examination and evaluation of effective literacy procedures, strategies, and materials. Emphasis on detection and correction of reading difficulties.
Fieldwork required. Letter grade only (A-F).

## 551B. Assessment of Literacy with Bilingual Students (3)

Prerequisites: Speaking and reading competence in Spanish; consent of the instructor.
Evaluation of measures, strategies, and materials used to assess literacy in bilingual students. Special emphasis on issues regarding the interpretation of assessment data, program placement, and instruction of English learners.
Requires diagnostic assessment/instruction plan. Participation by speakers of languages other than Spanish is possible as literacy assessments in diverse languages become available. Letter grade only (A-F).

## 554. Reading/Language Arts Curriculum: Leadership and Supervision (3)

Prerequisite: California Reading Certificate or consent of instructor.
Examines varied roles and responsibilities of the Reading/Language Arts Specialist including intervention, curriculum development, supervision, program development, and leadership.
Letter grade only (A-F).

## 556. Theoretical Models and Processes of Reading (3)

Prerequisite: California Reading Certificate or consent of instructor.
Exploration and analysis of current and historical theoretical models of the reading process. Examination of their influence on curriculum and instructional issues in literacy.
Letter grade only (A-F).

## 558. Language Study for Reading Teachers (3)

Prerequisites: EDRG 540 and admission to the Reading Certificate program or consent of instructor.
Relationships among phonology, morphology, semantics, syntax, pragmatics, and the teaching of reading. Focus on phonemic awareness, phonics, decoding strategies, vocabulary, spelling, grammar skills, and English language learners.
Letter grade only (A-F).

## 559. Practicum in Teaching Reading/Language Arts (3)

Prerequisites: EDRG 551 and admission to the Reading Certificate program or consent of instructor.
Methods and intervention approaches for meeting the needs of struggling readers at various levels of reading acquisition, including tutoring or small-group instruction of students.
Classroom field experience is required. Letter grade only (A-F).
651. Advanced Diagnosis and Intervention in Reading/ Language Arts (3)
Prerequisites: EDRG 551 or equivalent; valid California Reading Certificate or consent of instructor.
Includes clinical practicum and seminar on diagnosing and providing appropriate intervention for children with delayed literacy development.
Letter grade only (A-F).

## 695. Seminar in Reading (3)

Prerequisites: Advancement to candidacy, approval of Reading Program advisor, and written application submitted to the Graduate Studies Office by October 1 for the spring semester; successful completion of all required course work for the Master of Arts in Education, Option in Elementary or Secondary Education, Specialization in Reading.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

## 697. Directed Research in Reading (1-3)

Prerequisites: Permission of instructor, department chair, and associate dean. Individual research or intensive study under the guidance of a faculty member. Application for enrollment must be made by October 1 for the spring semester or by March 1 for the fall semester or summer session.
May be repeated to a maximum of 6 units in different semesters.
698. Thesis Study in Reading (3)

Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair, and associate dean.
Planning, preparation, and completion of thesis under supervision of a thesis committee.
Application for enrollment must be made in the Graduate Studies Office by October 1 for the spring semester or by March 1 for the fall semester or summer session. Credit/no credit only. May be repeated to a maximum of 6 units in different semesters for certificate and degree purposes, subject to suitable change in course content.

# THEATRE ARTS <br> College of the Arts 

Department Chair<br>Joanne Gordon<br>Department Office<br>Theatre Arts (TA), Room 221<br>Telephone<br>(562) 985-7891<br>Faculty<br>\section*{Professors}<br>Joanne Gordon, Holly Harbinger, W. Jeffrey Hickman, Patrick McDonough, Nancy Jo Smith, Maria Viera<br>Associate Professors<br>David Jacques, Danila Korogodsky<br>Assistant Professors<br>Hugh O'Gorman<br>Undergraduate/Graduate Advisor<br>Barbara Matthews

Administrative Coordinator
Micky Small

The Department of Theatre Arts offers the Bachelor of Arts degree with opportunities for options in Performance (acting) and Technical Theatre (scenery/costume/lighting design). This flexibility of program has been organized to serve student needs in three principal areas: (1) Enrichment of the student's liberal arts background, (2) Development of interests and skills in the theory and practice of Theatre Arts, (3) Preparation for theatre professions in community theatre, recreational theatre, educational theatre, and professional theatre. Courses offered cover the full range of world drama from both the viewpoint of theatre and dramatic literature.

The W. David Sievers Memorial Scholarship in acting, named for the first faculty member of the theatre program, is awarded annually to new students who exhibit potential in the field of performance. This award consists of a modest
sum and is determined through competitive audition judged by faculty. In addition, the Fine Arts Affiliates of the University and the Dramatic Allied Arts Guild of Long Beach provide for monetary awards to qualified students in all areas of theatre. For further information contact the Department of Theatre Arts.

The Department of Theatre Arts offers graduate study leading to the Master of Fine Arts degrees. The candidate is urged to observe the general requirements stated in this Catalog, as well as the specific departmental requirements stated here and, more fully, in the Department Program Planners, available upon request from the department.

All majors are required to participate in the departmental production program. Furthermore, majors enrolled in any acting course are expected to audition and participate in departmental productions in that semester. The student is expected to accept any role in which he/she is cast. Majors are also expected to seek approval from their advisor before making any commitment to a theatre program which lies outside of the departmental academic atmosphere.

The Theatre Arts Department holds division II membership in the National Association of Schools of Theatre (National Association of Schools of Theatre, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700). The Bachelor of Arts and the Master of Fine Arts degrees are accredited by the association. The department is also a member in good standing with the Theatre Communications Group and the International Theatre Institute of the United States.

## UNDERGRADUATE PROGRAMS

## Bachelor of Arts in Theatre Arts (code THEABA01) (120 units)

The Bachelor of Arts in Theatre Arts provides the opportunity for the student to gain a broad exposure to the discipline. The curriculum requires study in Acting, Technical and Design Crafts, the History, Literature and Criticism of Theatre, and Directing. After completion of the lower division core students may choose to audition/interview for placement in the performance or design options

## Requirements

The Theatre Arts core is required for all majors regardless of option.

THEA 10 is required each semester of enrollment. These units are not included in the 120 for graduation.

Lower Division Core: THEA 101, 114A, 142, 146, 148, 201, 271.

Upper Division Core: THEA 321, 322, 324I, 374, 426.
And three (3) units of production from the following: THEA 310A, 310B, 340A, 340B, 410A, 410B, 440A, 440B.

Select 21 units from the following: THEA 112, 114B, 144, 214, 262, 316, 341, 352, 364, 375, 425, 427, 433, 442, 447, 449, 451, 462, 476, 498.

No more than eight units of Theatre Arts activity (cast and/or crew) will apply toward degree requirements. Crew requirements for all majors: One major running crew assignment in residence for each of the areas of costume, makeup, stage-craft and lighting to be satisfactorily completed. Students with transfer credit in those related courses must fulfill the same running crew requirements within the first three semesters of matriculation into the University.

At the beginning of the semester, all incoming students, including transfer students (including those who have been inactive for a year in our department), are required to audition (in the case of the performance option) or interview (in the case of the technical option). Auditions and interviews are conducted by appropriate faculty/student groups. (These auditions are required for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty.)

## Option in Performance: Acting/Directing (code THEABA02) (120 units)

Lower Division Core: THEA 10, 101, 114A, 142, 146, 148, 201, 271.

Upper Division Core: THEA 321, 322, 324I, 374, 426.
In addition to the core courses take all of the following:
THEA 112, 114B, 214, 262. Select nine (9) units from the following: THEA 144, 312, 316, 318, 375, 413, 414, 415, 462, 476, 498.

All performance majors will also fulfill four performance requirements to graduate. This requirement is met through acting, understudying, directing or assistant directing for a Mainstage or Second Stage production; acting or directing for a Showcase production; or by a special assignment approved by the performance faculty.

## Option in Technical Theatre: Scenery/Costume/Lighting Design (code THEABA03) (120 units)

Lower Division Core: THEA 10, 101, 114A, 142, 146, 148, 201, 271.

Upper Division Core: THEA 321, 322, 324I, 374, 426.
In addition to the core courses take: All of the following: THEA 352, 433. Select 15 units from the following: THEA 144, $341,342,441,442,444,446,447,448,449,451,455,476$, 498.

## Minor in Theatre Arts (code THEAUM01)

This minor may be combined with any major at CSULB except the BA in Theatre Arts. Students are admitted to the minor after having completed a minimum of 30 units of college level course work including all 12 units of General Education Foundation courses with a cumulative GPA of 3.0 or higher.

## Requirements

A minimum of 21 units is required for the minor.
Complete 12 units: THEA 101, 321, 322; THEA 114A or 142
Select 9 units from the following (at least 3 units must be upper division): THEA 112, 114A, 114B, 142, 146, 148, 214, 262, 316, 374, 433, 426
Recommended GE Capstone (Note: will not be counted as part of the minor): THEA 324I

## GRADUATE PROGRAMS

## Master of Fine Arts in Theatre Arts

The Master of Fine Arts Degree in Theatre Arts is the terminal degree offering the professional training deemed necessary by the major Theatre Arts Schools in the United States.

All students admitted to the MFA program are members of California Repertory Company and are subject to the operating procedures of the company. CalRep, the professional arm of the Theatre Arts Department, prepares and performs plays from the canon of international dramatic literature.

## Criteria for Admission to the Program

1. Students applying for the MFA program must have completed a bachelor's or master's degree in Theatre Arts from an accredited institution with a 3.0 GPA in upper-division theatre courses, meet University admission requirements, and submit evidence of creative ability and professional intent in one of the following areas: Acting, Technical Theatre/Design, Theatre Management;
2. When an undergraduate degree has been completed in a program having different requirements than those at CSULB or in some field other than Theatre Arts, additional preparation and time may be required before the student can be considered for classified status in the degree program. Units of credit from coursework in a graduate program may be acceptable after review by the faculty evaluation committee, and approval by the Dean;
3. Admission to the program in Acting requires audition and interview. Admission to the program in Technical Theatre/ Design requires interview and/or submission of original work such as manuscripts, designs, renderings, slides, models and/or working drawings;
4. All students admitted into the MFA program will be admitted as conditionally classified. In order to obtain fully classified status, a committee from the Theatre Arts faculty must authorize continuation in the program after evaluating academic progress, individual skills development, and review of performance or portfolio at the end of the student's first full year of residence.

## Advancement to Candidacy

1. Attain fully classified status;
2. Remove all undergraduate deficiencies determined by the departmental evaluation and the Dean of the College;
3. Submit a program for approval by the department chair, the graduate advisor and the Dean of the College.

## Requirements

The MFA degree is a 60-unit degree requiring full time residency. Course requirements are arranged according to the following structure depending on the student's choice of option.

The options share a common core of courses, which offer study in aesthetics, conceptualization, history, theory, literature, and research. The remainder of the courses offers students the opportunity further to develop artistic skills in their particular area of option. The program culminates in a major creative project and written project report.

## Option in Acting (code THEAMF01)

The Acting option requires work in voice, movement, and process each semester. Process classes explore a wide range of acting styles. Ongoing performances in public presentations are required.

60 units: THEA 517 (4 units), 518 (4 units), 519 (4 units), 520A, 520B, 521A 521B, 522A, 522B, 523, 524, 530A, 530B, 531A, 531B, 532A, 532B, 564A, 564B, 565A, 565B, 566A, 566B, 696, 699 (3 units).

## Option in Technical Theatre/Design (code THEAMF02)

The Technical Theatre/Design option requires work in a variety of skills development which emphasizes the technological as well as the artistic aspects of design and execution. Continuous advancing assignments in productions for public performances are required.

Core classes all concentrations: THEA 517, 518, 519, 523, 524, 541, 544, 550, 552, 696, 699 (3 units).

## Costume Concentration

60 units: THEA 546A/B, 556A/B, 656A/B, 540, 542, 554, 583,586 , and 6 units of electives.

Electives, with advisors approval, can be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music, and Design.

## Scenery Concentration

THEA 580A/B, 585A/B, 685A/B, 540, 545A, 545B, 547, 581, 584 and 4 units of electives.

Electives, with advisors approval, can be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music, and Design.

## Lighting Concentration

THEA 548A/B, 648A/B, 649A/B, 545A, 545B, 555, 581, 584 , and 6 units of electives.

Electives, with advisors approval, can be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music, and Design.

## Option in Theatre Management (code THEAMF03)

The option in Theatre Management requires work in a number of different areas including front of house, box office management, press relations, outreach, international development, contracts, and fundraising. Successful completion of different assignments in each area is necessary for advancement in the program.

60 units to include: THEA 502, 503, 504, 507, 517 (4 units), 518 (4 units), 519 (4 units), 523,524, 550, 602 (6 units), 603, 696, 699 (3 units); MKTG 500; ACCT 500; and 6 units of electives. Electives with advisors approval may be taken from the University at large

## MFA Transfer and Residence Policy

Transfer credit allowable toward the MFA may not exceed 20 units. The Graduate Advisor must approve all transferred credit use in the MFA Program.

## Option in Dramatic Writing (code THEAMF04)

The MFA in Theatre Arts, Option in Dramatic Writing is offered by the Department of Theatre Arts, with primary support from the Department of Film and Electronic Arts, and additional support from the Department of Communication Studies and the Department of Comparative World Literature and Classics. The MFA in Theatre Arts is the terminal degree offering the professional training deemed necessary by the major Theatre Arts Schools in the United States. The MFA in Theatre Arts, Option in Dramatic Writing prepares students for university and college teaching and for positions in the entertainment, media, and publishing industries. "Dramatic Writing" is defined as creative (fiction and non-fiction) writing for all forms and genres of collaborative and performance media. The MFA in Theatre Arts, Option in Dramatic Writing culminates in a thesis writing project of publishable/producible quality.

## Criteria for Admission to the Program

1. Students applying for admission to the MFA program should have completed a bachelor's or master's degree in Theatre Arts from an accredited institution with a minimum 3.0 GPA in upper division theatre courses, meet university admission requirements, and submit evidence of creative ability and professional intent in Dramatic Writing.
2. When an undergraduate degree has been completed in a field other than that named above, additional preparation may be required before the student can be considered for classified status in the degree program. (Although the Graduate Advisor will consider each student's academic background in determining what courses need to be taken, the following are generally required: THEA 321and THEA 322 Theatre History, THEA 324I Theatre Today, and THEA 426 Dramatic Theory and Criticism.) Transferable credit allowable toward the MFA may not exceed 20 units. The Graduate Advisor must approve all transferred credit use in the MFA Program.
3. Admission to the program in Dramatic Writing requires interview and submission of portfolio of creative writing.
4. All students admitted into the MFA program will be admitted as conditionally classified. In order to obtain fully classified status, a committee from the Theatre Arts faculty must authorize continuation in the program after evaluating academic progress, individual skills development, and review of portfolio at the end of the student's first full year of residence.

## Advancement to Candidacy

1. Attain fully classified status;
2. Remove all undergraduate deficiencies as determined by the departmental evaluation and the Dean of the College; 3. In consultation with the Graduate Advisor, submit a program for approval to the department chair and the Dean of the College.

## Requirements for Completion

The MFA in Theatre Arts, Option in Dramatic Writing degree program is 60 units, normally requiring full-time residency. The program culminates in a major thesis writing project of publishable/producible quality. Course requirements are arranged according to the following structure:

Core A - Dramatic Writing (12 units): Take the following: FEA 604A, 604B, 604C, 604D
Core B - History, Theory, Criticism, Production, and Writing (27 units): Take the following: THEA 517, 518, 519, 523, 524, 696
Core B. 1 - Four courses chosen from: THEA 374*, 375*, 380, 426*, 427*, 501, 505, 507, 550
Core C - Rhetorical Theory, Criticism, \& Communication Studies (6 units): Take the following: COMM 633, 640
Core D - Comparative World Literature and Classics (6 units): Two courses chosen from: CWL 502, 503, 504, 505, 537, 538, 540, 545, 549 (topic dependent per advisement), 552, 561.
MFA Thesis ( 6 units): THEA 699
Elective Course (3 units): Additional university-wide graduate course determined by advisement.

## Courses (THEA)

## LOWER DIVISION

## 10. Theatre Arts Showcase (1)

Participation in weekly programs dealing with all aspects of Theatre Arts. Required of Theatre Arts majors each semester.
These units do not count toward graduation.

## 101. Fundamentals of Script Analysis (3)

Basic approach to analysis of play script, intended to provide theatre practitioners and generalists with tools necessary to understand literary text of a play, and its application to work in performance, design and critical/ historical studies.
Letter grade only (A-F).

## 110A,B. Theatre Arts Activity-Cast $(1,1)$

Participation in acting projects; open to students cast in Universitysponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment.)

## 112. Beginning Voice and Speech for the Actor (3)

Theory and practice in developing command of oral techniques for stage including breath support, resonation, free vocal release, and articulation.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours) (CAN DRAM 6)

## 113. Introduction to Acting (3)

Prerequisite or Corequisite: A General Education Foundation course.
Review of actors and acting, past and present; their work as artists; basic exercises in voice, diction, movement, and personality projection. Open only to non-Theatre Arts majors. Attendance at University sponsored productions required.
Letter grade only (A-F).

## 114A. Fundamentals of Acting (3)

Development and preparation of the actor's instrument: voice, body, imagination. Exercises in relaxation, sensory work, motivations and relationships. Individual study of textual problems for actors.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)
114B. Fundamentals of Acting (3)
Prerequisite: THEA 114A or equivalent.
Development and preparation of the actor's instrument: voice, body, imagination. Exercises in relaxation, sensory work, motivations and relationships. Individual study of textual problems for actors.
Letter grade only (A-F). (6 hrs. lab.)

## 122. Appreciation of Theatre Arts (3)

Prerequisite or Corequisite: A General Education Foundation course.
Appreciation and understanding of theatre arts for non-theatre majors; standards for critical evaluation of live theatre; lecture, discussion, written critiques and attendance at University sponsored productions required.
Letter grade only (A-F). Not open for credit to students with credit in THEA 124.
124. Introduction to World Theatre and Drama (3)

Prerequisite or Corequisite: A General Education Foundation course.
Introduction to all aspects of theatre including criticism, dramatic literature, movements, themes, historical background and theatrical production from different parts of the world.
Letter grade only (A-F).

## 140A,B. Theatre Arts Activity - Crew $(1,1)$

Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Tech Production, or Management areas.
Letter grade only (A-F). ( 60 hours minimum participation time or major crew assignment)

## 142. Elementary Stagecraft (3)

Basic physical equipment of the theatre, elementary scenic design, construction, rigging, painting and drafting. Practical lab assignments dealing with preparation of scenery and props for University sponsored productions.
Letter grade only (A-F). (3 hour lecture, 4 hours lab).
144. Stage Makeup (3)

Practical introduction to techniques of theatrical make-up. Students must be clean-shaven due to nature of course. Preparation of make-up material for University sponsored productions.
May be taken concurrently with THEA 146. Letter grade only (A-F). (9 or more hrs lab.) (CAN DRAM 14)

## 146. Costume Crafts (3)

Techniques of costume and accessory construction for stage; use of fabrics, materials and equipment. Preparation of costumes and accessories for University sponsored productions.
May be taken concurrently with THEA 144. Letter grade only (A-F). (9 or more hrs lab.)

## 148. Stage Lighting (3)

Theory and practice of modern stage lighting; functions of light; design, layout; properties of various instruments; practical experience in hanging and focusing of equipment for University sponsored productions.
Letter grade only (A-F). (3 hour lecture, 4 hours lab)

## 201. Writing for the Theatre Arts (3)

Prerequisite: ENGL 100.
The study and application of rhetorical strategies of invention,
arrangement, and style to write expository, analytic, and argumentative prose with special emphasis on particular features of writing in the Theatre Arts.
Letter grade only (A-F).

## 210A,B. Theatre Arts Activity - Cast (1,1)

Participation in acting projects; open to students cast in Universitysponsored productions.
Letter grade only (A-F). ( 60 hours minimum participation time or major crew assignment )

## 214. Intermediate Acting (3)

Prerequisites: THEA 112, 114A and B. Should be taken directly following THEA 114B.
Introduction to scene study. Application of techniques of body, voice and imagination to dramatic texts thereby stimulating an acting process for role development.
Letter grade only (A-F). (6 hours laboratory.)

## 215. Introduction to Audition Techniques (3)

Prerequisite or Corequisite: THEA 114A.
Introduction to fundamentals of auditioning for theatrical productions. For beginning actors. Focus on preparing and coaching monologues, dramatic sides and callbacks. Letter grade only (A-F). (6 hours lab).

## 240A,B. Theatre Arts Activity - Crew $(1,1)$

Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Tech Production, or Management areas.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment).

## 262. Beginning Movement for the Actor (3)

Beginning movement training for the actor based on physical conditioning and non-verbal communication related to beginning acting process.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours).

## 271. Stage Management (3)

Management skills required for the professional stage manager. Course examines responsibilities, and function of stage manager in relation to director, designer, and performer.
Letter grade only (A-F). (6 hrs lab.)

## UPPER DIVISION

## 310A,B. Theatre Arts Activity - Cast (1,1)

Participation in acting projects; open to students cast in Universitysponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment)

## 312. Applied Voice and Speech for the Actor (3)

Prerequisite: THEA 112 or equivalent.
Further study of vocal techniques for theatre, including variety of quality, force, tempo and pitch, scansion, and imagery. Application of basics learned in 112 to more complicated dramatic texts. Letter grade only (A-F). (2 hrs. lecture, 2 hrs. activity).
316. Rehearsal and Performance (3)

Prerequisites: THEA 114A and 114B.
Performance based class focusing on interrelationship of actor and director. Working with director on creative process, interpreting demands of director and combining these with actor's creative process.
Letter grade only (A-F). (6 hours laboratory.)

## 318. Advanced Scene Study (3)

Prerequisites: THEA 214, 316 and consent of instructor.
Intensive scene study in modern dramatic texts. Class is designed to continue and strengthen process of actor role development through scenic exercises.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (6 hours lab.)

## 321. History of Theatre and Drama to 1660 (3)

Prerequisite: THEA 101 or concurrent enrollment or consent of instructor.
Development of Theatre Arts from primitive origins to the 17th Century.
Letter grade only (A-F).

## 322. History of Theatre and Drama Since 1660 (3)

Prerequisite: THEA 321 or consent of instructor.
Development of Theatre Arts from 17th Century to present. Letter grade only (A-F).

## 324I. Theatre Today (3)

Prerequisites: Completion of the G. E. Foundation, one or more Explorations courses, and upper-division standing.
Course examines current trends, achievements and problems in contemporary western theatre and dramatic literature. Particular attention will be paid to multicultural expression in the theatre.
Same course as CWL 324I.
340A,B. Theatre Arts Activity - Crew (1,1)
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Tech Production, or Management areas.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment.)

## 341. Presentation Techniques for Theatre (3)

Develop understanding of form, shape, line, and tone through exercises with various media. Explore approach to visualization and presentation techniques for theatre design.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours).
*342. Advanced Technical Theatre (3)
Prerequisite: THEA 142 or consent of instructor.
Investigation of tools, materials, and procedures used in scenic construction and rigging. Supervised practical application of the techniques through scenic drafting and work on University sponsored productions.
Lecture 2 hours, activity 2 hours).

## 352. Foundations of Visual Expression (3)

Introduction to basics of visual composition stressing a link to Theatre Design. Emphasizes development of visual discipline, creative skills and poetic and artistic nature of theatre design.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours).

## 364. Stage Combat (3)

Prerequisite: THEA 262 or consent of instructor.
Practical study of unarmed combat for stage. Covers technique, safety, and application of combat skills for acting process.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours.)

## 373. Directing for the Camera (3)

Prerequisites: THEA 214 or consent of instructor.
Study of script analysis, filmic space, creating mise-en-scene, decoupage, and working with actor. Emphasis on a series of collaborative exercises between director and actor.
Letter grade only (A-F).

## *374. Fundamentals of Directing (3)

Prerequisite: THEA 101 or consent of instructor.
Introduction to script analysis, rehearsal techniques, director's prompt book and organization of stage space and time. Using contemporary realistic plays to develop actor/director communication skills. Intensive scene work.
Letter grade only (A-F).
*375. Intermediate Directing (3)
Prerequisite: THEA 374
Intensive work using nonrealistic plays to develop director's concept, advanced script analysis and approach to challenges of style. Introduction to collaboration with set, lighting, costume, sound, and make up designers. Intensive scene work with student actors focusing on rehearsal techniques.
Letter grade only (A-F). (6 hrs lab.)
*380. Playwriting (3)
Creative writing for the stage. Study of character, concept, theme, dialogue and structure.
Letter grade only (A-F).

## 410A,B. Theatre Arts Activity - Cast (1,1)

Participation in acting projects; open to students cast in Universitysponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment).

## 413. Film/Video Acting (3)

Prerequisite: THEA 318 and consent of Instructor
Acting techniques required for stylistic range and variety of film and television scripts. Video recording and playback of scenes and filmic acting exercises to adjust acting skills to these media.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours.)

## 414. Period Scene Study (3)

Prerequisite: THEA 318 and/or consent of instructor.
Scenes from period plays including Greek, Shakespeare, Comedy of Manners. Analysis of play's structure in terms of language, background, human behavior.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours).

## 415. Audition Techniques (3)

Prerequisite: THEA 318 or consent of instructor.
Designed to acquaint actor with auditioning skills and practical business information necessary for acting professionally. Topics include: picture, resume, interview, audition, agent, casting, director, unions, contracts, job market and career strategies.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours).

## 425I. Theatre and Cinema (3)

Prerequisite: Completion of G.E. foundation, one or more Explorations courses, THEA 324I, and upper-division standing.
Examines relationships between theatre and cinema both historically and concerning problems of realism, comedy and melodrama.
Letter grade only (A-F).
*426. Dramatic Theory and Criticism (3)
Prerequisite: THEA 101 or consent of instructor.
Study of the major theories of dramatic literature and performance. Analysis of dramatic works from the standpoint of genre, style and structure.
Letter grade only (A-F).

## *427. Dramatic Construction (3)

Prerequisites: Completion of the Foundation; at least one Exploration course in Theatre Arts or in literature (an English literature course, a comparative world literature course, a foreign language literature course, or other literature course); and upper division standing.
Examination of dramatic and literary theories that focus on narrative construction as applied to drama, film, storytelling and screenwriting Letter grade only (A-F).

## 433. Design for Theatre (3)

Prerequisites: THEA 142, 146, 148 or consent of instructor.
Integration of styles and methods of theatrical costume, make-up, scenery and lighting design.
Letter grade only (A-F).
440A,B. Theatre Arts Activity - Crew $(1,1)$
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Tech Production, or Management areas.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment).

## 441. Scenographic Techniques (3)

Prerequisite: THEA 142 or consent of instructor:.
Study of drafting techniques used to translate designer's vision to finished set on stage. Includes both traditional and computer aided design and drafting tools.
Letter grade only (A-F). (2 hrs. lecture, 2 hrs. activity).

## 442. Scenic Technical Skills (3)

Prerequisite: THEA 142 or consent of instructor.
Use of materials and construction methods in stage properties, set dressing and furniture. Painting techniques for scenery and properties. Supervision in practical application of these elements in University sponsored productions.
Letter grade only (A-F). (2 hrs. lecture, 2 hrs. activity).
444. Scenic Design (3)

Prerequisite: THEA 101, 142, 433.
Comprehensive study in techniques and art of scenic design. Course includes practical hands-on instruction in design conceptual development and two and three dimensional visual expressions of ideas.
Letter grade only (A-F). (2 hours lecture, 2 hours laboratory)

## *446. Costume Design (3)

Prerequisite: THEA 101, 146 or consent of instructor.
Development of costume design through character and script analysis and understanding of line, space, color, and texture. Planning and presentation of costume rendering.
May be repeated for a maximum of 6 units in different semesters. (Lecture 2 hours, activity 2 hours).
447. Costume Technical Skills (3)

Prerequisite: THEA 101, 146, or consent of instructor.
Analysis of structure of costumes and accessories. Advanced technical projects using materials, patterning and construction methods in costume and accessories. Supervision in practical application of these elements in University sponsored productions.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters. (2 hrs. lecture, 2 hrs . activity).

## *448. Lighting Design (3)

Prerequisites: THEA 101, 148 or consent of instructor.
Techniques of designing lighting for various stage forms; creative planning and projection of designs for specific productions.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (Lecture 2 hours, activity 2 hours)
*449. Sound Design for the Theatre (3)
Introduction to scope, tools, materials and practices of sound in theatre today.
Letter grade only (A-F).

## *451. Computer Applications for the Theatre (3)

Use of computers and general application software as used in theatrical design, management and technical production. Primary areas of focus include spreadsheets, database, presentation graphics and basic web page development.
Letter grade only A-F.

## 456. Virtual and Automated Lighting Design (3)

Comprehensive study in techniques of virtual and automated lighting design. Course includes practical hands-on instruction in WYSIWYG virtual lighting software; Emphasis Control software and hardware; Vari*Lite, Martin, and High End automated fixtures, and Catalyst Media Server.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours)

## 462. Advanced Movement for the Actor (3)

Prerequisite: THEA 262 or consent of instructor.
Kinesthetic approaches to theatrically utilizing heightened physical language to explore character, relationship and truth.
Letter grade only (A-F). (Laboratory 6 hours).
*466. Costuming for Media Productions (3)
Exploration of costume skills specific to recorded media including continuity, script break-down and project management.
Letter grade only (A-F).

## *476. Theatre Management (3)

Examination of administration, management and promotion of a producing theatre organization. Practical application required in University-sponsored productions.
Letter grade only (A-F). (9 or more hrs lab.)
*490. Special Topics in Theatre Arts (3)
Prerequisites: Consent of instructor.
Topics of current interest in Theatre Arts selected for intensive study.
Letter grade only A-F May be taken to maximum of 9 units (Lecture 2 hours, activity 2 hours). Topics will be announced in the Schedule of Classes.

## *498. Special Studies in Theatre Arts (3)

Prerequisites: Consent of instructor.
Independent projects and research of advanced nature in areas of Theatre Arts under faculty supervision.
Letter grade only (A-F). Limited to 6 units in any one area. Topics will be announced in the Schedule of Classes.
A. Acting
B. Directing
C. Costume
D. Scenery
E. Properties
F. Playwriting
J. Theatre history
K. Theatre criticism
L. Movement
M. Makeup
N. Lighting
O. Voice
P. Stage management
Q. Theatre management
R. Dance
S. Technical direction.

GRADUATE LEVEL
502. Seminar in Theatre Management I (3)

Prerequisites: Acceptance into the MFA Program.
Study of contemporary principles of management processes specifically targeted to people pursuing professional Theatre Arts Management careers. Principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

## 503. Leadership and the Arts (3)

Prerequisites: Acceptance into the MFA Program or senior status and completion of THEA 476 or consent of instructor.
Study of contemporary principles of leadership and leadership development processes with special concern for application to people working in the arts. Context for leadership in arts organization is assessed and matched against students' personal leadership styles.
Letter grade only (A-F).
504. Managing the Not-For-Profit Arts Organization (3)

Prerequisites: Acceptance into the MFA Program or senior status and completion of THEA 476 or consent of instructor.
Study of principles of organizational management as applied to not-for-profit arts organizations. Issues include strategic planning and analysis, organizing, staffing, leading and controlling. Additionally studied are principles and practices of fundraising in not-for-profit environment.
Letter grade only (A-F).

## 507. Entertainment Law (3)

Prerequisite: Acceptance into the MFA Program.
Overview of legal aspects of entertainment business, especially in performing arts.
Letter grade only (A-F).

## 517. Repertory Theatre I (2)

Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units (6 hrs lab.)

## 518. Repertory Theatre II (2)

Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units (6 hrs lab.)

## 519. Repertory Theatre III (2)

Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units. (6 hrs lab.)
520A. Voice I (2)
Prerequisite: Acceptance into the MFA Program.
Groundwork in Voice and Speech techniques for professional actors.
Letter grade only (A-F). (3 hrs. laboratory).
520B. Voice I (2)
Prerequisites: Acceptance into MFA Program.
Application of vocal technique into various styles of verse and prose for meaningful vocal expressiveness.
Letter grade only (A-F). (3 hrs. laboratory).

## 521A. Voice II (2)

Prerequisites: Acceptance into MFA Program.
Exploration of extensive vocal variety and expressiveness, using
four components of voice: quality, force, tempo, pitch. Expanding the boundaries.
Letter grade only (A-F). 3 hrs. laboratory)

## 521B. Voice II (2)

Prerequisites: Acceptance into the MFA Program.
Analysis and development of dialects and accents for performance.
Letter grade only (A-F). (3 hrs. laboratory).

## 522A. Voice III (2)

Prerequisite: Acceptance into MFA Program.
Advanced study of dialects. Coursework covers research, analysis, and performance of selected dialects in context of a play.
Letter grade only (A-F). (3 hrs. laboratory).
522B. Voice III (2)
Prerequisite: Acceptance into MFA Program.
Exploration of microphone techniques. Coursework covers stand-up, radio drama, dubbing, animation, and practice in development of a demo-tape for professional voice-over work.
Letter grade only (A-F). (3 hrs. lab).

## 523. Theory and Practice of Contemporary Theatre (3)

Critical exploration of major schools of thought between 1980present including styles, genres and both national and international trends. Contributions of theatre practitioners and theorists and role of audience in this period.
Letter grade only (A-F).

## 524. Dramaturgy (3)

Prerequisite: Acceptance into the MFA Program.
Dramaturgical approaches to textual analysis, dramatic structure and the theatrical event.
Letter grade only (A-F).

## 530A. Acting in Repertory I (2)

Prerequisite: Acceptance into the MFA program.
Foundation and development of individual and ensemble acting techniques necessary for repertory actor and company. Applicable and related to performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 530B. Acting in Repertory I (2)

Prerequisite: Acceptance into the MFA program and THEA 530A.
Variable modules of technique training in ensemble and interaction skills for repertory actor. Dependent upon needs of individual actor, ensemble and/or performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 531A. Acting in Repertory II (2)

Prerequisite: Acceptance into the MFA program.
Development of a variety of acting techniques available to actor for playing situation, character, style and theatricality. Applicable and related to performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 531B. Acting in Repertory II (2)

Prerequisite: Acceptance into the MFA program and THEA 531A. Variable technique modules in further development of repertory acting skills for playing situation, character, style and theatricality. Dependent upon needs of individual actor, ensemble and/or performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 532A. Acting in Repertory III (2)

Prerequisite: Acceptance into the MFA program.
Advanced and professional technique training of skill variety in the repertory actor. Applicable and related to performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 532B. Acting in Repertory III (2)

Prerequisite: Acceptance into the MFA program and THEA 532A.
Variable advanced technique modules for expansion and enrichment of professional acting skills for the individual and ensemble. Dependent upon needs of individual actor, ensemble and/or performance schedule.
Letter grade only (A-F). (3 hrs. laboratory).

## 540. Non-traditional Material Use in the Theatre (2)

Prerequisite: Consent of instructor.
Creative use of non-traditional materials in the design and fabrication of props, accessories and set dressing. Exploration into decorative techniques and processes in fabrication and finishing. Letter grade only (A-F). (4 hrs lab)

## 541. Portfolio Development (2)

Study of content and presentation forms of designer's portfolio, resume and cover letter. Acquaints the designer/technician with interview skills and practical business information.
Letter grade only (A-F). (4 hrs lab.)

## 543. Character Costume Rendering (2)

Exploration of professional skills necessary for Costume Designers visual communication of fully rendered costumed characters.
Exploration includes communication of proportion, movement, personality, fabrication, accessories, details, and adaptation of style or period, as applied through different types of illustration media.
Letter grade only (A-F). (Activity 4 hours)

## 544. Visual Concepts in Theatre Design (2)

Foundations in visual conceptualization emphasizing development of visual discipline, creative skills and the poetic nature of theatre design.
Letter grade only (A-F). (4 hrs lab)

## 545A. Computer Aided Design for the Theatre (2)

Applications of two/three dimensional computer aided design/ drafting programs to problems in technical theatre and design. Course concentrates on application of 2D-CADD programs to common theatrical drafting problems. Course explores use of 3DCADD programs as design tools in theatrical spaces.
Letter grade only (A-F). (4 hrs lab.)

## 545B. Computer Aided Design for the Theatre (2)

Prerequisite: THEA 545A or consent of instructor.
Advanced application of computer aided design for theatrical lighting designer.
Letter grade only (A-F). (4 hrs lab.)

## 546A. Advanced Costume Design I (2)

Development of costume design through character and script analysis, and understanding of line, space, color and texture.
Letter grade only (A-F). (4 hrs lab.)
546B. Advanced Costume Design I (2)
Prerequisite: THEA 546A or consent of instructor.
Exploration of elements of design as demanded by a variety of scripts and styles.
Letter grade only (A-F). (4 hrs lab.)

## 548A. Advanced Lighting Design I (2)

Prerequisite: Consent of instructor.
Techniques of designing lighting for various stage forms.
Letter grade only (A-F). (4 hrs lab.)

## 548B. Advanced Lighting Design I (2)

Prerequisite: THEA 548A or consent of instructor.
Creative planning and development of lighting designs for specific productions.
Letter grade only (A-F). (4 hrs lab.)

## 550. Computer Graphics for Theatre (3)

Prerequisite: THEA 451 or equivalent.
Course is a comprehensive study of tools and techniques incorporated in Adobe PhotoShop and their application to theatre. Techniques in scanning, digital image manipulation and exporting to hard and soft copies are covered.
Letter grade only (A-F).

## 552. Collaborative Studies (2)

Explores aesthetic visions, directorial approaches, dramaturgical practices and performance styles that characterize contour and magic of Theatre. Use of collaborative study and presentation affords a greater expanse of creativity with the integration of methodologies as seen in Professional arenas.
Letter grade only (A-F). (Lecture 2 hrs., activity 2 hrs.)

## 554. Textile Applications in Theatre Design (2)

Exploration and creative application of techniques of manipulating, painting and dyeing textiles for theatrical design.
Letter grade only (A-F). (4 hrs lab.)

## 555. Virtual and Automated Lighting Design (2)

Comprehensive study in techniques of virtual and automated lighting design. Course includes practical instruction in WYSIWYG virtual lighting software; Emphasis Control software and hardware; Vari*Lite, Martin, and High End automated fixtures, and the Catalyst Media Server.
Letter grade only (A-F). (Activity 4 hours)

## 556A. Advanced Costume Design II (2)

Development of skills in visual communication and style, including advanced rendering techniques and presentation.
Letter grade only (A-F). (4 hrs lab.)

## 556B. Advanced Costume Design II (2)

Prerequisite: THEA 556A or consent of instructor.
Development of skills in research, interpretation, conceptualization and integrating multiple sources in design.
Letter grade only (A-F). (4 hrs lab.)

## 564A. Movement I (2)

Prerequisite: Acceptance into the MFA Program.
Practical study in movement fundamentals, body mechanics, and nonverbal communication. Exploration of movement as actor's tool to aid in acting process.
Letter grade only (A-F). (3 hrs. laboratory).

## 564B. Movement I (2)

Prerequisite: Acceptance into the MFA Program.
Analytical and practical exploration of movement principles of weight, space, time, and energy and their application to acting process.
Letter grade only (A-F). (3 hrs. laboratory).

## 565A. Movement II (2)

Prerequisite: Acceptance into the MFA Program.
Practical study of unarmed combat for stage. Coursework covers technique, safety, choreography, and application to acting process, including performance of scenes that include combat.
Letter grade only (A-F). (3 hrs. laboratory).

## 565B. Movement II (2)

Prerequisite: Acceptance into MFA Program.
Practical study of armed combat for stage, including quarterstaffs, broadswords, sabres, rapiers and daggers. Coursework covers technique, safety, choreography, and application to acting process. Letter grade only (A-F). (3 hrs. laboratory).
566A. Movement III (2)
Prerequisites: Acceptance into the MFA Program.
Historical and practical study of movement styles from selected theatrical periods through eighteenth century. Coursework covers social dancing, movement, manners, and handling of period costumes, props, and accessories.
Letter grade only (A-F). (3 hrs. laboratory).
566B. Movement III (2)
Prerequisite: Acceptance into MFA Program.
Historical and practical study of movement styles of nineteenth and twentieth centuries. Coursework covers social dancing, movement, manners, and handling of period costumes, props, and accessories. Letter grade only (A-F). (3 hrs. laboratory).

## 580A. Scene Design I (2)

Development of scene design through script analysis and understanding of space, form, line, color, texture and mood. Planning and development of scenic rendering and model.
Letter grade only (A-F).

## 580B. Scene Design I (2)

Prerequisite: THEA 580A or consent of instructor.
Exploration of elements of scenic design as demanded by a variety of scripts and styles with specific challenges and complex production format.
Letter grade only (A-F).

## 581. Scenographic Techniques (2)

Study of drafting techniques used to translate designer's vision to finished set on stage. Includes both traditional and computer aided design and drafting tools.
Letter grade only (A-F).

## 583. Theatrical Patterning Methods (2)

Exploration of fitting, advanced patterning and construction techniques. Projects in fitting problems, flat patterning, draping, understructures and tailoring for theatre.
Letter grade only (A-F).

## 584. Rendering and Painting for Theatre (2)

Introduction to rendering basics and painting stressing links to art of theatre design. Developing ability to depict form and space. Emphasizes development of visual discipline, drawing and rendering techniques used in visual presentation of stage design and scenic painting.
Letter grade only (A-F). (6 or more hours lab)
585A. Scene Design II (2)
Projects in scene design for the multi-set play. Consideration of stylistic unity, current trends and approaches as well as shifting problems. Development of advanced rendering techniques.
Letter grade only (A-F). (4 hrs lab.)

## 585B. Scene Design II (2)

Prerequisite: THEA 585A or consent of instructor.
Further development of skills in scene design for multi-set play. Development of advanced model making techniques.
Letter grade only (A-F). (4 hrs lab.)

## 590. Graduation Design (3)

Prerequisite: Consent of Instructor.
Advanced design projects and concepts with faculty supervision.
Topics to be listed in the Schedule of Classes. Letter grade only (A-F). May be repeated for a maximum of 9 units in different semesters.
C. Costumer
D. Scenery
E. Properties
M. Make-up
N. Lighting
602. Seminar in Theatre Management II (3)

Prerequisites: Acceptance into the MFA Program.
Study of application of contemporary princip les of management processes specifically targeted to people pursuing professional Theatre Arts Management careers. Applications of principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study.
Letter grade only (A-F). May be repeated to a maximum of 9 units.

## 603. Producing Commercial Theatre (3)

Prerequisite: Acceptance into the MFA Program.
Examination of all facets of professional theatre production including off-Broadway, Broadway, regional and stock operations.
Letter grade only (A-F).

## 614. Advanced Period Scene Study (3)

Prerequisite: Acceptance by audition into MFA program.
Acting in Shakespeare and advanced scene study from selected theatrical periods and plays. Analysis and exercises include language, background, and human behavior.
Letter grade only (A-F).

## 648A. Advanced Lighting Design II (2)

Direct application of cueing and structuring of the total lighting design within the time constraints of rehearsal and production. Letter grade only (A-F). (4 hrs lab.)

## 648B. Advanced Lighting Design II (2)

Prerequisites: THEA 648A or consent of instructor.
Development of skills in lighting design process for a variety of scripts and styles with specific challenges and complex production format.
Letter grade only (A-F). (4 hrs lab.)

## 649A. Advanced Lighting Design III (2)

Development of skills in lighting for musical, opera, and dance. Letter grade only (A-F).

## 649B. Advanced Lighting Design III (2)

Prerequisite: 649A or consent of instructor.
Development of skills in lighting for other production venues.
Letter grade only (A-F).
656A. Advanced Costume Design III (2)
Development of skills in costume design for musical, opera, and dance.
Letter grade only (A-F). (4 hrs lab.)

## 656B. Advanced Costume Design III (2)

Prerequisite: THEA 656A or consent of instructor.
Development of skills in costume design for other production venues.
Letter grade only (A-F). (4 hrs lab.)
685A. Scene Design III (2)
Development of skills in scene design for musical, opera, and dance.
Letter grade only (A-F). (4 hrs lab.)

## 685B. Scene Design III (2)

Prerequisites: THEA 685A or consent of instructor.
Further development of skills in scene design for other production venues.
Letter grade only (A-F). (4 hrs lab.)

## 686. Theatrical Tailoring (2)

Investigation of tailored garments and understructures in selected historical periods. Projects in traditional and contemporary hand machine tailoring techniques, and in specialized construction for undergarments. Supervision in practical application of these elements in university sponsored productions.
Letter grade only (A-F). (4 hrs lab.)

## 690. Special Topics in Theatre Arts (1-3)

Prerequisite: Consent of instructor.
Topics of current interest in Theatre Arts selected for intensive study. May be taken for maximum of nine units. Topics will be announced in the Schedule of Classes.
Letter grade only (A-F).

## 694. Advanced Studies in Theatre Arts (3)

Prerequisite: Consent of instructor.
Advanced individual projects with faculty supervision in an area of Theatre Arts specialization. Limited to three units in any one area per semester and no more than six units in one semester with a total of nine units in any one area. Areas will be designated by letter at time of registration.
Letter grade only (A-F). May be repeated to a maximum of 9 units.
A. Acting
B. Directing
C. Costumes
D. Scenery
E. Properties
F. Playwriting
J. Theatre History
K. Theatre Criticism
L. Movement
M. Makeup
N. Lighting
O. Voice
P. Stage Management
Q. Theatre Management
S. Technical Direction

## 696. Aesthetic Theory and Conceptualization (3)

Study of theoretical aesthetics as it applies to creative act. Practical application of research and variable aesthetic elements in production style and conceptualization.
Letter grade only (A-F).

## 699. MFA Thesis/Project (1-6)

Prerequisite: Advancement to candidacy and consent of department chair.
Planning, preparation and completion of thesis related to field of specialization.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

# UNIVERSITY COURSES <br> University Academic Programs 

Associate Vice President for Academic Affairs, Graduate and Undergraduate Programs<br>Cecile Lindsay<br>Office<br>Academic Affairs

## Educational Opportunity Program (EOP)

## 100. Educational Opportunity Program Orientation (2)

Introduction and orientation to college life for EOP students. Review of campus and community resources available to support students participating in the Educational Opportunity Program. Instruction in various academic survival skills that are necessary for college success. Areas of review include: time management, research methodology and term paper development, test-taking strategies, and decision-making.
Letter grade only (A-F).

## International Education (INTL)

## 400. Upper Division Coursework Taken at a Foreign University (1-4)

Advanced college level coursework completed at a foreign university under the auspices of a CSULB exchange program. Course content is planned in cooperation with CSULB faculty.
500. Graduate Level Coursework Taken at a Foreign University (1-4)
Graduate college level coursework completed at a foreign university under the auspices of a CSULB exchange program. Course content is planned in cooperation with CSULB faculty. Letter grade only (A-F).

## Supplemental Instruction (S/I)

## 60. Supplemental Instruction (1)

An adjunct support class tied to select general education courses. Students enroll in the target GE course and the SI class together.

## University (UNIV)

## 100. The University and Your Future (1)

All undergraduate students who enter this university with fewer than 56 transferable semester units shall complete a one-unit (15 hour) course which includes instruction in History and Mission of University.

Introduction to university traditions; current issues in higher education; academic freedom, tenure, and students' rights and responsibilities; and services available at university throughout student's academic career. Includes component on use of University Library and campus information technologies.
Students who do not complete requirement within first two semesters of enrollment on campus may be disenrolled from the university before third regular semester.
Offered both in week before classes begin and during first five weeks of semester. Consult Schedule of Classes for course offerings. Credit/No Credit grading only.
3001. Odyssey (3) F

Prerequisites: General Education A requirements in composition, speech, and critical thinking. Upper-division status
Drawing upon departments from across the University, course investigates topics of great importance to our lives. Topics, or themes, will vary year by year. Students learn how methodologies of different disciplines approach a common problem.
May be repeated to a maximum of 6 units.

## 301I. Odyssey (3) S

Prerequisites: General Education A requirements in composition, speech, and critical thinking. Upper-division status.
Drawing upon departments from across the University, course investigates topics of great importance to our lives. Topics, or themes, vary year by year. Students learn how methodologies of different disciplines approach a common problem.
May be repeated to a maximum of 6 units.
400. The University in Your Future Student Leadership (1)

Prerequisites: Selected by University 100 Director.
Students assist UNIV 100 faculty in presentation of course.
May be repeated to a maximum of 3 units. Credit/No Credit grading only.

## Writing Proficiency

## WPE 10. Preparation for the WPE (1)

Non-baccalaureate-level course designed to prepare students for the Writing Proficiency Examination (WPE) for which a passing score is 11. Recommended for students who have not yet attempted the WPE or who have previously failed the test with a score of 8 or below.

Credit/No Credit grading only. May be repeated until the WPE is successfully passed. (Activity)

## WPE 20. Preparation for the WPE (1)

Non-baccalaureate-level course designed to prepare students for the Writing Proficiency Examination (WPE) for which a passing score is 11 . Recommended for students who have previously failed the WPE with a score of 9 or 10 .
Credit/No Credit grading only. May be repeated until the WPE is successfully passed. (Activity)

## ENGL 301A. English Proficiency (3)

Prerequisites: ENGL 100 or equivalent.
Intermediate course in English usage with emphasis on building proficiency in oral and written language.
Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English. Letter grade only (A-F).
ENGL 301B. English Proficiency (3)
Prerequisites: ENGL 100 or equivalent.
Intermediate course in English usage with emphasis on building proficiency in oral and written language.
Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English.

# UNIVERSITY HONORS PROGRAM <br> University Academic Programs 

Associate Vice President for Academic Affairs, Graduate and Undergraduate Programs<br>Cecile Lindsay<br>Office<br>Academic Affairs<br>Director<br>Albie Burke<br>Office<br>Library West (LBW), Room 213<br>Phone<br>(562) 985-4706<br>Program Coordinator<br>Duan Jackson

The University Honors Program exists to provide a selected group of qualified students with a unique educational experience. It unites the committed student and faculty member in a learning relationship in which each has the highest expectations of the other. The Program seeks to accomplish these goals in two ways: first, it broadens students' intellectual horizons by encouraging them to explore areas of thought not closely related to their major fields of study; and second, it allows students to work in their major fields in greater depth than would be possible in a conventional course pattern. The work of the first two years satisfies, in part, the University's General Education Requirements and is directed toward the first objective. The work of the Junior and Senior years, which includes independent study experiences and a senior thesis, is directed toward the second objective.

The University Honors Program is designed so that students will not only master a substantial amount of knowledge, but will also develop the capacity for balanced intellectual judgment and the powers of abstraction and conceptualization. Students will be immersed in the learning process and therefore must have both the ability and willingness to do intense and often self-directed intellectual work as well as a desire to make the most of the opportunities available in the University.

Students who successfully complete the requirements of the University Honors Program will receive a Certificate and an annotation on their transcript which mark the graduate as a person of intellectual accomplishment, one who has demonstrated a disciplined curiosity and dedication to the pursuit of knowledge.

Available within the University Honors Program are three alternatives designed to meet the varying needs of students.

1. General Honors;
2. Honors in the Major;
3. Combination of the above for which coursework prescribed for General Honors and departmental requirements for Honors in the Major are successfully satisfied.

## General Honors

General Honors is a special approach to the General Education Requirements of the University which enhances and builds on them. It is a program of carefully selected courses and specially designed, multi-disciplinary seminars from which a student chooses a minimum of 30 units (a minimum of 18 units in the case of upper division transfers), most of which are applied toward the 51 units of General Education courses required for graduation of all students. Those courses designated for General Honors credit encourage student participation on an academic level not generally possible in the usual curricular offering.

## Objectives

- to provide highly motivated students an exceptional educational opportunity to challenge and expand their intellectual capacities, especially in terms of increased breadth and depth;
- to deepen the students' intellectual experiences by stimulating and guiding their own curiosity;
- to encourage freedom of initiative;
- to provide an academic and cultural environment that inspires creative activity through close working relationships with distinguished faculty;
- to advise students in their academic planning to meet the University's General Education requirements through a cohesive and unified program of study;
- to prepare students to write an Honors Thesis that is a preparation for advanced study, and a demonstration that the student has acquired the intellectual confidence and academic independence that are indicative of the maturely educated person.


## Admission Requirements

There are three ways a student may enter the University Honors Program:

- Incoming students are invited to apply to General Honors on the basis of high school class standings, ACT composite score, and/or SAT scores. Normally, students should be in the upper ten percent of their high school classes, and have a composite ACT score of at least 24, and/or a SAT score of at least 1100, and a GPA of 3.3 or better. However, if not all of these criteria are met, a combination of them may be evaluated in addition to a letter of recommendation and a personal interview with the Honors Program Director.
- Any student who maintains a 3.3 or better overall GPA at California State University, Long Beach in 12 or more units of coursework is eligible to participate in General Honors with a letter of recommendation from one of her/his instructors and a personal interview with the Honors Program Director. Students with a GPA of 3.3 or above in 12 or more units at California State University, Long Beach normally will be granted automatic acceptance into the Program upon application.
- Students not meeting the designated criteria may petition for admission to General Honors. Students are required
to submit letters of recommendation from two instructors familiar with their work. These exceptional cases will be reviewed by the Director and the University Honors Council. Students are encouraged to petition if they have a good explanation for not meeting the basic requirements and/or a strong motivation to participate in the Program.
- Transfer students may enter General Honors provided they have a minimum equivalent of a 3.3 average in all course work at the accredited institution from which they are transferring.
Qualified students may enter General Honors as late as the junior year. Where Honors transfer agreements have been negotiated with a community college (such as with Long Beach City College) up to 12 transfer units will be accepted as meeting the requirements of the CSULB University Honors Program. Otherwise a waiver of some of the required Honors credits (not more than 6) may be granted by the Director and the University Honors Council.


## General Information

Students who have failed to enroll in courses for Honors credit for two consecutive semesters will normally be withdrawn from the program;

A University Honors student who withdraws from the University during any semester will also be withdrawn from the program. A student may apply for readmission at the beginning of any semester in which he/she plans to enroll.

## Requirements

Every student electing General Honors in the University Honors Program must complete all university-wide graduation requirements, and the requirements for a major. General Honors is itself not a major.

A student must maintain an overall GPA of 3.00 or better in Honors and in all University courses attempted.

General Honors Plan I (minimum of 30 units) is designed for entering freshmen and consists of a minimum of 21 units of lower-and upper-division General Education courses (which include UHP 100 and UHP 150), UHP 300 (a nonGeneral Education course), and a culminating 6-unit senior thesis/project in the student's major (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

General Honors Plan II (minimum of 18 units) is primarily for upper-division transfers from community colleges and consists of nine units of upper-division General Education courses, UHP 300 (a non-General Education course), and a culminating 6-unit senior thesis/project in the student's major (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

## Honors in the Major

Honors in the Major (minimum of 9 units) is designed for students who elect not to take General Education courses as a part of the University Honors Program or who decide to enter the Honors Program too late to do so; Honors in the Major consists of a minimum of one upper-division Honors-specific course in the student's major department and a culminating 6-unit senior thesis/project (courses in the major department equivalent to UHP 496 and UHP 498). Students in General Honors whose major department
offers an Honors in the Major Program may apply to participate in both programs, in which case the General Honors thesis requirement would be satisfied through the Honors in the Major option.

In consultation with a Departmental Honors in the major Faculty Advisor, a student can plan an enriched course of study in an academic major. This opportunity for program flexibility makes it possible for a student to elect the most relevant, exciting and enriched experiences offered by the department.

Although Honors in the major requirements may vary among departments; usually they entail independent study, seminar courses, high levels of performance, and senior projects or theses culminating in a broad knowledge of subject matter. Information concerning Honors in the Major is available in the University Honors Program Office and in participating departmental offices.

## Admission Requirements

Please contact the department office or the University Honors Program Office for information regarding admission. Normally a student must be a declared major, usually with at least sophomore (30 units) standing.

## Requirements

1. Completion of the requirements for the major. (The approval of the department chair and the Departmental Faculty Honors Advisor must be obtained to change any of the general major requirements);
2. Completion of a minimum of one upper-division Honorsspecific course in the student's major department and a culminating 6-unit senior thesis/project (courses in the major department equivalent to UHP 496 and UHP 498).

## Courses (UHP)

Special honors sections of regular GE courses in various departments as listed under "University Honors Program" to be found in the current Schedule of Classes.

## LOWER DIVISION

## 100. Angles of Vision - Honors (3)

Analytical and critical approaches leading to original and creative thinking. Development of seminar skills: preparation of analytical essays and oral presentations, examination of models and techniques of reasoning, conceptualization of research problems, writing documented paper.
Required of all UHP students. GE Category A.3.
150. Exploring a Text - Honors (3)

Prerequisites: ENGL 100.
Close reading of a work (or works) of literature - fiction or non-fiction - exploring issues of personal identity, moral choice, freedom and commitment.
May be repeated to a maximum of 6 units with different topics. GE Category E. Letter grade only (A-F).

## UPPER DIVISION

## 300. Junior Colloquium - Honors (3)

Studies of selected interdisciplinary topics, problems or issues with a view toward integration of the areas of study involved in lower-division courses.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 490. Special Topics - Honors (3)

Identification and critical analysis of current problems in selected areas. Topics to be announced in the Schedule of Classes.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

## 496. Research Participation - Honors (3)

Prerequisite: Consent Program Director and supervising faculty member.
Letter grade only (A-F).

## 497. Directed Studies - Honors (1-3)

Prerequisite: Consent of Program Director and supervising faculty member.
Independent study under supervision of a faculty member. May be repeated to a maximum of 6 units. Letter grade only (A-F).
498. Senior Thesis/Project - Honors (3)

Prerequisite: Consent of Program Director and supervising faculty member.
Final completion of a thesis, or a project; or an exhibit or a performance.
Letter grade only (A-F).

Department Chair<br>Elyse Blankley<br>Office

Faculty Office (FO) 2, Room 226
Telephone
(562) 985-4839

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Faculty

## Professors

Elyse Blankley (Women's Studies and English), Norma Chinchilla (Women's Studies and Sociology), Wendy Griffin (Women's Studies), Patricia Rozee (Psychology and Women's Studies)

## Associate Professors

Eve Oishi (Women's Studies)

## Assistant Professors

Angela Bowen (Women's Studies), Patricia-Anne Johnson (Women's Studies / College of Liberal Arts), Maythee Rojas (Women's Studies), Elizabeth Philipose (Women's Studies)

## Affiliated Faculty

Houri Berberian (History), Mary Caputi (Political Science), Patricia Cleary (History), Jane Dabel (History), Linda Espana-Maram (Asian and Asian American Studies), Jayne Howell (Anthropology), Susan Luévano (Library), Claire Martin (Romance, German, Russian Languages and Literatures), Britt Rios-Ellis (Health Science), Anna Sandoval (Chicano and Latino Studies), Sharon Sievers (History), Kristine Zentgraf (Sociology)
t is the goal of the Women's Studies Department to provide for students, the University, and the community an intellectual context from which it is possible to study the experience of women. By definition, this enterprise crosses disciplinary and cultural lines; it means that we are in the University not only to fill in gaps and to facilitate the development of coherent bodies of knowledge about women in established disciplines, but that we represent a core of emerging knowledge that is growing into a new discipline.

Women's Studies seeks to equip students with the knowledge, skills, and perception necessary to their realization of the fullest range of options available to them as human beings. We want to provide and encourage contexts conducive to academic excellence and sensitive to academic freedom that will assist students in 1) the reexamining of traditional ideas about women and men in cultures characterized by patterns of sex-role stereotyping;
2) acquiring an understanding of the history and contributions of women of varying social, racial, and ethnic backgrounds; 3) developing the analytical tools required to understand and appreciate the implications of the last three decades of feminist theory and research; and 4) preparing for a variety of vocations which increasingly demand knowledge about women's experience.

Women's Studies, in its own department and through courses in other departments and disciplines, offers the University the intellectual excitement inherent in the development of a new discipline, and a humanistic perspective from which to view the accumulated knowledge of other disciplines, particularly their assumptions about women, both as actors and subjects. Women's Studies encourages the development of research and curriculum related to women in other disciplines and departments throughout the University. We also provide information and advising for students and other members of the University community on the subject of women and women's issues.

The Women's Studies Department offers a major and minor. Students may also graduate with a B.A. in Inter-disciplinary Studies that has Women's Studies as one of its disciplines. CSULB also offers a Special Major at the graduate level through which students may design a major combining Women's Studies with another discipline. Designated Women's Studies courses may be used to fulfill the Social Science (Category II) and other General Education requirements, as well as I.C. and H.D. requirements. For additional information and advice relative to these programs, or ways in which to combine Women's Studies with another Major or Concentration, please consult the Department Office or the Undergraduate Advisor.

## Bachelor of Arts in Women's Studies (code W/STBA01) (120 units)

## Requirements

A total of 45 units will be required for the Women's Studies major. Courses cannot be counted for more than one category within the major. Requirements include 3 lower division units and 42 upper division units distributed among the following categories:

## Core Requirements - 30 units

Introduction to Women's Studies - total 3 units: WST 102
Theory and Methodology - total 15 units.
Nine units to include WST 300, 301, and 415;
One of the following for 3 units: WST 340 or 392 ;
One of the following for 3 units: WST 365I or 382.
U.S. and Global Ethnic/Gender Diversity - total 6 units: WST 318I and 401I
Women's History - total 3 units: WST 485A (HIST) or 485B (HIST)
Senior Capstone Seminar - total 3 units: WST 495

## Electives - 15 units

To include 9 units from one of the following clusters and a total of 6 units from one or both of the other clusters.

## Clusters

## Feminist Aesthetics and Cultural Studies

This cluster focuses on the study of art and culture both as sites of women's theoretical and political work and as sources of the construction and representation of women's identities. The courses in this cluster examine forms of women's own self-expression (such as literature, philosophy, theory, and cinema) as well as women's place in culture (such as language, art, popular culture, religion, or urban space) through which societal ideas about women have historically been created and maintained.

WST 314, 316 (FEA 317), 320 (CHLS 415), 365I, 381 (ASAM, HIST), 382 (ENGL), 384 (HIST 338), 402 (POSC 401), WST 406A (ASAM, HIST), WST 406B (ASAM, HIST), 410, 420, 425, 432, 441 (ENGL), 442 (ENGL), 447, 455 (PHIL), 475 (ANTH, LING 470), WST 490 (depending on topic and with prior approval of the Women's Studies advisor).

## Social Change and Social Policy

The courses in this cluster address the role of women within the legal, economic and political structures of our society. Whether they are social policy makers or the ones affected by the distribution of power, women have always played a central role in all of the institutions and practices that make up our society. This cluster examines women's historical and contemporary place within religion; law; science; labor; economics; environmentalism; health care; cities; families; structures of race, class, and sexuality; and political activism.

WST 307I, 308, 309 (NSCI), 314, 315, 319 (AIS, ASAM, BST, CHLS), 325 (SOC), 338I, 350, 356, 381 (ASAM, HIST), 384 (HIST 338), 402 (POSC 401), 406A (ASAM, HIST), 406B (ASAM, HIST), 410, 420, 424, 425, 430, 432, 440, 485A (HIST), 485B (HIST), WST 490 (depending on topic and with prior approval of the Women's Studies advisor), SOC 346, PSY 354.

## U.S. and Global Ethnic/Gender Diversity

This cluster focuses on the experience of women internationally and among diverse communities and cultures in the United States. Recognizing that women's experiences are defined as much by their positioning within global political, social, and economic systems as by their individual racial, ethnic, religious, class, or sexual identity, this cluster offers a comparative look at both the individual and the global aspects of women's lives. The courses in this cluster study the diversity of histories, experiences, and cultures within the United States as well as their historical and political connections to women around the globe.

WST 307I, 315, 320 (CHLS 415), 356, 381 (ASAM, HIST), 384 (HIST 338), 394 (HIST), 406A (ASAM, HIST), 406B (ASAM, HIST), 424, 445A (CHLS 450A), 445B (CHLS 450B), 447, 449, 490 (depending on topic and with prior approval of the Women's Studies advisor), IST 451. Note: Courses cross listed with any of the above courses are accepted as substitutes. Students must earn a grade of at least "C" in all upper division major courses.

## Minor in Women's Studies (code W/STUM01)

## Requirements

A minimum of 21 units are required for the Women's Studies minor, to be selected with approval of a Women's Studies advisor. Courses cannot be counted for more than one category within the minor and must be selected from among the following categories:
Lower Division - 3 units: W/ST 101 or 102
Upper Division - 18 units:
Take each of the following for three units each: W/ST 300, 318I, 401।
Take one of the following for three units: W/ST 340 or 392
Take one of the following for three units: W/ST 485A or 485B
Take three additional units from any cluster.

## Courses (W/ST)

## LOWER DIVISION

## 101. Women and Their Bodies (3)

Prerequisite or Corequisite: One GE Foundation course.
Introduction to the rapidly expanding body of literature and ideas related to the biology and sexuality of women.

## 102. Women In Contemporary Society (3)

Prerequisite or Corequisite: One GE Foundation course.
Introduction to some of the basic questions raised by the contemporary feminist movement relating to the social, political, and economic status of women.

## UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

## 300. Principles of Feminism (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor.
Introduction to principles of feminist history, thought, theory, methodology, and current issues that emphasizes but is not limited to the United States.
Letter grade only (A-F).

## 301. Feminist Research Methods (3)

Prerequisite: Upper division status.
Explores how feminist scholars frame and conduct research. Students explore feminist adaptations and critiques of traditional academic disciplines and design and conduct a research project using a range of bibliographic and research tools.
Letter grade only (A-F).
307I. U.S. Women and the Economy: Money, Sex, and Power (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the economic roles of women; analysis of the sexual division of labor and domestic work. Special focus on the origin, migration, settlement, and economic patterns of and problems facing US women from major ethnic and racial groups.

## 308. Women and the Law (3)

History of women's experience under the law; constitutional law; 19th amendment and ERA; equal protection issues; discrimination in employment; marriage and family law.

## 309I. Women in Science (3)

Prerequisites: Completion of the G.E. Foundation, upper division standing, six units of General Education science courses and consent of instructor.
Examines women and their roles in science in terms of their sociohistorical context, their specific contributions, and the nature of the scientific problems they pursued, including methodology and outcomes. Explores the cultural and institutional obstacles to the success of women in science.
Letter grade only (A-F). Same course as NSCI 309I. (Lec 3 hrs.)

## 312. Women in the Ancient and Medieval West (3) Prerequisite: ENGL 100.

Examines roles and experiences of women in Western Europe from prehistory to sixteenth century. Themes may include: construction of gender roles, relation between symbols and reality, interaction of private/public life, access to power/opportunity; possibility of a "women's culture."
Same course as HIST 319.

## 314. Women Narrate Their Lives (3)

Study of lives of a cross-section of Women in U.S. from colonial era to present based on biographical and autobiographical sources.

## 315. Black Women in America (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor.
Examination of American black women from eighteenth century to present. Taught from interdisciplinary perspective and presented in their own voices.
Letter grade only (A-F).

## 316. Women in the History of U.S. Film (3)

History of women as they are represented, presented as images, or constructed in the development of U.S. film. Theory and analysis of film from a feminist perspective.
Same course as FEA 317.

## 318I. U.S. Women of Color (3)

Prerequisites: ENGL 100 and upper division standing or consent of instructor.
Examines condition, position, experiences and accomplishments of U.S. women of color. Covers historical and contemporary issues using theoretical essays, personal narratives, historical documents, literature, and media images.

## 319. The Ethnic Experience in the U.S. (3)

Examination of dynamics of development of our multicultural society, emphasizing study of four distinct ethnic strands of American society (Asian American, Black American, Mexican American, and American Indian) and their role in maintenance of cultural diversity in United States.
Same course as AIS 319, ASAM 319, B/ST 319, CHLS 319.

## 320. Latina Women in the United States (3)

Prerequisite: Junior standing or consent of instructor.
Examines cultural, political, economic, and sexual forces that mold Latina women. Focus on cultural stereotypes, class, gender identity, sexuality, and politics of race.
Same course as CHLS 415.

## 325. Sociology of Women (3)

A sociological analysis of social, political and economic status of women. Examines history of women's roles and status; gender conflicts and social movements; and societal attitudes towards women in society.
Same course as SOC 325.

## 3381. Women in Sport (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of women's historical and contemporary involvement with sport. Social, cultural and developmental implications of sports participation for women.
Same course as KIN 338I.

## 340. Community Service Learning in Women's Issues (3)

Prerequisites: Upper division standing and two prior women's studies courses, or consent of instructor.
Allow students opportunity to practice theories and knowledge gained as a result of studying women's issues. Students will work in community with agencies addressing women's issues.

## 350. Feminist Issues in Mental Health (3)

Introduces issues related to the mental health of women, from historical, anthropological, sociological and psychological perspectives. Emphasis is on the relationship of power, sexism, sex role socialization and gender stereotypes to mental health.

## 356. Women and Sexual Orientation: Lesbianism (3)

Examination of lesbianism from psychological and historical perspectives; includes discussions of lesbianism in literature, representations of lesbianism in various media; the place of lesbianism in the politics of the women's movement and in gay liberation, and the development of "queer theory."

## 365I. Images of Women in Popular Culture (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Analyzes the construction of images of women in popular culture. Discussion of theories of culture, gender and ideology. Analysis of film, advertising, magazines and popular fiction.

## 381. Asian American Women (3)

Reconstructs and examines Asian American women's history and contemporary experiences. Assesses complexities of intersecting social categories of oppression and Asian American women's active pursuit of equality and dignity.
Same course as ASAM 381 and HIST 381.

## 382. Women and Literature (3)

Prerequisites: Completion of Foundation requirements.
Survey of literature by women authors writing in English, across a range of historical periods; examination of works in various genres that present complexity of women's lives and challenges of female authorship; exploration of feminist critical approaches.
Same course as ENGL 382.

## 384. Modern European Women's History (3)

Investigates how European history has impacted on women, and how women and women's issues have shaped historical events. Issues covered are: industrialization, the family, wars and revolutions, health and sexuality, and the "woman question" in politics, culture and society. Same course as HIST 338.

## 392. Feminist Pedagogy: Peer Facilitation (3)

Prerequisite: Previous or concurrent W/ST class and consent of instructor.

Peer facilitation of small group discussion, teaching assistance and other assignments directed by a supervising faculty member, supplemented by seminar, reading and journal writing.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
394. Middle Eastern Women (3)

Prerequisities: Upper division status.
Explores a wide range of roles played by Middle Eastern women throughout history, seek to understand their multi-faceted thoughts and activities, and discuss most important issues related to women and gender in Middle Eastern history.
Same as HIST 394.

## 401I. Women in Global Perspective (3)

Prerequisites: completion of Foundation courses, one or more Explorations course, and upper-division standing.
Covers feminist perspectives on contemporary globalization. Examines how we might imagine a more equitable world and why feminism should be concerned with global perspectives. Topics include colonialism, tourism, food production, women's labour, migration, militarism and social movements.

## 402. Women in Political Theory (3)

Prerequisite: Students must have completed one course in either political science or women's studies.
Differential treatment of women and men in western political theories, including femininity, power, rationality and the role of women in family. Classic and contemporary texts.
Same course as POSC 401.

## 406. Asian Women (3)

Historical experience of women in Asia, with emphasis on Chinese and Japanese societies; links with the experience of Asian-American women.

## 406A. Asian Women: East and Northeast Asia (3) <br> Prerequisite: Upper division status.

Exploration of the histories of women in China, Japan and Korea from prehistory to the present. Major themes include women's contributions to social, cultural and political change, and the complex relationship between feminism and nationalism in the modern period.
Same courses as A/ST 406A and HIST 406A.

## 406B. Asian Women: South and Southeast Asia (3)

Emphasis on modern period; exploration of complexities of women's roles in multicultural, multilingual societies in South and Southeast Asia, including gender as a continuing site of contention in nationalist discourse.
Letter grade only (A-F). Same course as A/ST 406B and HIST406B.
410. Women, Religion, and Spirituality (3)

Prerequisites: ENGL 100 and upper division status, or consent of instructor.
Study of women as spiritual and religious beings responding to and coping with largely patriarchal religious doctrine. Examines socioreligious construction of women and women's religious experience from prehistory to present day. Focus on feminist transformations of religious traditions.

## 415. Feminist Theory (3)

Prerequisites: W/ST 300 or consent of instructor.
Examines contemporary feminist theoretical perspectives.
Discussion of primary sources from a number of positions, including liberal, socialist, poststructural, "third world", postmodernist and postcolonial feminisms. Issues include gender and sexuality, race, ethnicity, class and nationality. Focus on discussion of current debates which cross disciplinary boundaries. Active student participation required.
Letter grade only (A-F).

## 420. Mothers and Daughters (3)

Analyzes how mothering is "reproduced" in daughters, and why/how patriarchal culture regulates the mother/daughter bond. Course materials include novels, film, and interdisciplinary theoretical works. Special emphasis on the mother/daughter relationship in a range of historical, racial, class and sexual contexts.

## 424. Women and Environmental Justice (3)

Prerequisites: Completion of Foundation curriculum and upper division status.
Examines complex relationship between women and nature and their treatment through 1) socio-religious ideologies, 2) international development, 3) environmental pollution, and 4) patterns of consumption and waste in industrialized nations. Third World feminists' insights largely frame the debate.
425. Women and Power (3)

Prerequisites: A previous W/ST class (101, 102, or 300) and upper division status or consent of instructor.
Examination of ways power has been defined, obtained, shaped and maintained, and effect this has historically had on women. Applies theory to contemporary issues affecting women and explores strategies for empowerment.

## 430. Women and Violence (3)

Women as victims and survivors of physical, psychological, and philosophical violence. Problems of rape, woman battering, incest, pornography and sexual harassment; examination of legal, religious and philosophical issues and alternatives for change.

## 432. Women in the City (3)

Examines the way women respond to urban environment, both literally and imaginatively. Special attention paid to sexual division of space, particular needs of immigrant and third world women, and utopian cities of sisterhood. Readings feature literary texts, augmented by an interdisciplinary range of theoretical and empirical studies of cities.

## 440. Issues in Women's Health (3)

Prerequisites: Upper division status; ENGL 100; and W/ST 101, BIOL 205, BIOL 207, or BIOL 211B.
Fundamentals of anatomy and physiology relevant to the cause, prevention, and treatment of various health issues, including reproductive organ dysfunction, sexually-transmitted disease, infertility, contraception, pregnancy, osteoporosis, cancer, and cardiovascular disease. Emphasizes lifestyle habits such as diet, exercise, and stress.

## 441. Women Writers of the Harlem Renaissance (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor.
Explores literature and lives of women authors of American Harlem Renaissance Period of 1920s. Examines critical reception, relative obscurity, and current re-discovery of these writers. Utilizes theoretical essays, biographical narratives, historical documents, and media images.
Same course as ENGL 441.

## 442. Sexing Chicana Literature (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor.
Analyzes how Chicana authors explore race, class, and gender. Focuses on use of sexuality, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes will include desire, identity, empowerment through "traditional" roles, and violence and the body.
Same as ENGL 442.
445A. Latinas and Revolution: Central America and Late 20th Century Mexico (3)
Prerequisite/Corequisite: ENGL 100 and upper division status or consent of instructor.
Examines how war and struggles for democracy shape the social consciousness and political activism of Latinas. Uses literature, film, history, and political theory to examine the role of violence in women's lives, community organizing, and the conceptualization of a pan-Latina feminist movement.
Letter grading only (A-F). Same course as CHLS 450A.
445B. Latinas and Revolution: Caribbean, U.S. and Early 20th Century
Prerequisite/Corequisite: ENGL 100 and upper division status or consent of instructor.
Examines how war and struggles for democracy shape the social consciousness and political activism of Latinas. Uses literature, film, history, and political theory identify differences in contexts of community struggle and points of intersection within Latina activism.
Letter grading only (A-F). Same course as CHLS 450B.

## 447. Women, Feminism, and Christian Theology (3)

Prerequisite: Completion of GE Foundation.
A theoretical examination of four Christian-based feminist liberation theological traditions. Examines history of feminist theology, role of racism, sexism, and classism in North American theology, and importance of related theological developments among AfricanAmerican, Latina-Chicana, and Asian American women. Letter grade only (A-F).
449. Feminism and International Human Rights (3)

Prerequisite: Upper division status or consent of instructor.
Reviews feminist debates on racism, colonialism, and international human rights. Will consider current international women's rights issues and critiques of western feminist perspectives on veiling, genital surgeries, gender-based persecution, violence against women in war, sati, dowry murders, migration and trafficking.

## 455. Philosophical Perspectives on Sex and Love (3)

Prerequisite: 6 units of philosophy or consent of instructor.
Philosophical perspectives on sex and love explores philosophical issues concerning sex, gender and love through readings and discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination are examined.
Same course as PHIL 455.

## 475. Language and Gender in Cross-Cultural Perspective (3)

Analysis of men's and women's communication in its social and cultural context; role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions or perceptions and stereotypes and their effect on communication.
Same course as ANTH 475 and LING 470. Letter grade only (A-F).
485A. History of Women in the U.S. Early Period (3)
Survey of roles and activities of American women from colonial period to 1850, with focus on slavery, immigration, family, economy, law, and politics.
Same course as HIST 485A.
485B. History of Women in the U.S. Since 1850 (3)
Changing roles and status of women in economic and social change; suffrage movement; women in union movement and WW II; the decade of the sixties and the "second wave" of feminism. Same course as HIST 485B.

## 490. Special Topics (1-3)

Topics of current interest in women's studies, selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Same course as AIS 490.

490K. Women and War: Voices of Resistance
Same topic as SPAN 493A, HIST 490F.
491. Special Topics (1-3)
492. Special Topics (1-3)

Topics of current interest in women's studies, selected for intensive study.
May be repeated to a maximum of 6 units with different topics.
495. Senior Capstone Seminar (3)

Prerequisites: Open to W/ST majors and minors, or consent of instructor.
Capstone course intended to integrate the multidisciplinary body of knowledge accumulated in the major or minor.

## 498. Field Work (1-3)

Prerequisite: Consent of instructor.
Practical experience in campus or community organizations concerned with women's issues.
May be repeated to a maximum of 6 units.

## 499./599. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent work in areas of special interest to student and instructor.
May be repeated to a maximum of 6 units.

## GRADUATE LEVEL

## 599./499. Directed Studies (1-3)

Prerequisite: Consent of instructor.
Independent work in areas of special interest to student and instructor.

May be repeated to a maximum of 6 units.

## GENERAL POLICIES AND REGULATIONS

## Election of Regulations for Degree Requirements (Catalog Rights)

Undergraduate students acquire "catalog rights" with respect to the requirements for a degree program by maintaining "attendance" continuously. This means that, if continuous attendance is maintained and the degree objective is not changed, students may choose to graduate under the requirements for the degree in effect 1) at the time they began the study in a California community college or another campus of The California State University, 2) at the time they entered CSULB, or 3) at the time of graduation from CSULB. Substitutions for discontinued courses may be authorized or required by the Dean of the cognizant College. Students who change their major, including changing from "undeclared" status to a defined degree objective or from one option to another option under the same degree, are governed by the degree major requirements in effect at the time of the change or declaration of major. Students who change majors are advised that some courses counted for General Education or double counted for General Education and a major may become unacceptable for General Education in connection with a new major. These students should check with the Academic Advising Center.

The term "attendance" means, literally, attendance in a course for at least one semester (or quarter) unit credit in at least one semester (or two quarters) in a calendar year, culminating in a record of enrollment on the student's official transcript. For the purpose of establishing catalog rights, the course must be at the baccalaureate or graduate level in a California community college, a California State University, or a University of California campus. Enrollment resulting in a withdrawal (the grading symbols W or WU) does not count as attendance in a course, and so does not preserve "catalog rights."

Once "catalog rights" are established, absence related to an approved medical, military or academic leave or for attendance at another accredited institution of higher education will not be considered an interruption of attendance, provided that the absence does not exceed two years. Please see Educational Leave later in this section.

For all students, disqualification or a failure to remain in continuous attendance will mean that the student must meet the regulations current at the time of resuming the degree program or those applicable at the time of graduation. In addition, for graduate students, a failure to maintain continuous attendance means the automatic revocation of "candidacy" for the degree (advancement to candidacy) and of "catalog rights."

## Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this Catalog, students and others who use this Catalog should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this
publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of the California State University, by the Chancellor or designee of the California State University, or by the President or CSULB designee. It is not possible in a publication of this size to include all of the rules, policies and other information that pertain to students, the institution, and the California State University. More current or complete information may be obtained from the appropriate department, college, or administrative office.

Nothing in this Catalog will be construed as, operate as, or have the effect of an abridgment or a limitation of any rights, powers, or privileges of the Board of Trustees of the California State University, the Chancellor of the California State University, or the President of the campus. The Trustees, the Chancellor, and the President are authorized by law to adopt, amend, or repeal rules and policies which apply to students. This Catalog does not constitute a contract or the terms and conditions of a contract between the student and CSULB or the California State University. The relationship of the student to the institution is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the President, and their duly authorized designees. Information concerning grievance procedures for students who feel aggrieved in their relationships with the university, its policies, practices, and procedures, or its faculty and staff, may be obtained from Leslie Nix-Baker, Director of Employee Relations, Brotman Hall (BH) 303, (562) 985-1742, or from Steve Katz, Director of Judicial Affairs, BH 377, (562) 985-5270.

The Federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at http://www.sss.gov.

Information concerning the academic programs of CSULB may be obtained from the Academic Vice President, BH 303, at (562) 985-4128 and may include:

1. the current degree programs and other educational and training programs;
2. the instructional, laboratory, and other physical plant facilities which relate to the academic program;
3. the faculty and other instructional personnel;
4. data regarding student retention at CSULB and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest; and
5. the names of associations, agencies, or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval, or licensing.

## Graduation Rates

CSULB has an obligation, under the federal Student Right-To-Know law, to provide information regarding graduation rates to prospective and current students. There are several ways of expressing graduation rates. The most widely used is the "six-year freshman cohort graduation rate." This indicator expresses the percentage of students who began as freshmen and who complete their degrees within six years at the same campus where they began studies. This percentage does not provide complete information for the following reasons. While most students who complete baccalaureate degrees finish in six years or less, others take longer. Some students do not begin at a four-year institution as freshmen but come as transfer students. Some attend several undergraduate institutions before receiving baccalaureate degrees. In the California State University system, a small percentage of students begin at one CSU campus, transfer to another CSU campus, and complete their degrees.

Following is information about CSULB six year freshman cohort graduation rates, four year transfer rates, total eventual graduation rates, and time to degree for freshmen and transfer students ${ }^{1}$.

The most recent six year freshman graduation rate for CSULB is based on the cohort entering in 1998 and stands at $46.2 \%$. This represents an increase from the prior cohort which was at $41.6 \%$. For regularly admitted students ${ }^{2}$, graduation rates were higher: $48.5 \%$ (1998 cohort) and $44.2 \%$ (1997). These graduation rates cap a seven year increase of about $17 \%$ for CSULB. Eventually even more students will graduate. The CSU has estimated that about $11 \%$ more students will complete after six years or transfer to another campus and graduate.

|  | Freshman <br>  <br> Six Year Graduation Rate $^{3}$ |  |  |  | Gration Rates <br> Estimated eventually <br> will graduate ${ }^{4}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cohort beginning |  | Regularly |  |  |  |
| in fall: | All students | Regularly <br> admitted students | admitted students |  |  |
| 1998 | $46.2 \%$ | $48.5 \%$ | NA $^{5}$ |  |  |
| 1997 | $41.6 \%$ | $44.2 \%$ | $55.6 \%$ |  |  |
| 1996 | $38.8 \%$ | $43.1 \%$ | $55.7 \%$ |  |  |
| 1995 | $32.9 \%$ | $37.7 \%$ | $50.1 \%$ |  |  |
| 1994 | $30.6 \%$ | $36.7 \%$ | $49.0 \%$ |  |  |

The most recent time to degree information indicates that students who began as freshmen at CSULB graduated in an average of 5.01 years (for the cohort whose degrees were awarded in the college year 2003-2004). This represents a
decrease of about one-half year or about 10\% compared to the cohort whose degrees were awarded in the college year 1999-2000. Regularly admitted students graduated in 4.82 years (2003-2004), an improvement from 5.37 years for the cohort whose degrees were awarded in 1999-2000.

The most recent four year transfer student graduation rate for CSULB is based on the cohort entering in 2000 and stands at $60.9 \%$. This represents an increase from the prior cohort which was at $58.5 \%$. For regularly admitted transfer students, graduation rates were higher: 66.2\% (2000 cohort) and 65.5\% (1999). Transfer student graduation rates have improved $12 \%$ over five years. Eventually even more transfer students will graduate. The CSU has estimated that about 8\% more students who began as transfers will complete after four years or transfer to another campus and graduate.

On average, students who began as junior transfers graduated in 3.01 years (for the cohort whose degrees were awarded in the college year 2003-2004). This represents a decrease of over one-fifth year compared to the cohort whose degrees were awarded in the college year 19992000. Regularly admitted students graduated in 2.6 years (2003-2004), an improvement from 2.69 years for the cohort whose degrees were awarded in 1999-2000.

Transfer Graduation Rates
Four Year Graduation Rate ${ }^{6} \quad$ Estimated eventually

| ${\text { Four Year Graduation } \text { Rate }^{6}}^{c}$Estimated eventually $_{\text {will } \text { graduate }^{7}}$ |  |  |  |
| :--- | ---: | :---: | :---: |
| Cohort beginning <br> in fall: | All students | Regularly <br> admitted students | Regularly <br> admitted students |
| 2000 | $60.9 \%$ | $66.2 \%$ | $73.9 \%$ |
| 1999 | $58.5 \%$ | $65.5 \%$ | $75.9 \%$ |
| 1998 | $54.8 \%$ | $62.7 \%$ | $71.9 \%$ |
| 1997 | $51.7 \%$ | $59.9 \%$ | $70.1 \%$ |
| 1996 | $49.1 \%$ | $58.4 \%$ | $67.5 \%$ |

Since it takes several years to complete a college degree, currently reported graduation rates are indicative of CSULB at the time these cohorts entered, 1998 and before for freshmen and 2000 and before for transfers. Since 1998, CSULB has continued to work to raise graduation rates by improving class availability, advising, curriculum, and other student support services. CSULB's currently reported graduation rates are similar to other public, comprehensive universities. However, the CSULB's rate of improvement has been rapid and the campus is on a trajectory to continue raise graduation rates and to reduce time to degree. These are currently top priorities for the campus.

Completing the degree in a reasonable period of time is an important goal for students (and their parents). The number of courses (and course units) that must be completed to earn a degree varies, depending on the degree. The least number of course units required for a baccalaureate degree is 120 . This would be equivalent to 40 three-unit courses (although courses can equate to one, two, three, four or more units). At CSULB, degrees in engineering, sciences and the arts generally require the largest number of courses (and units).

Earning a degree requiring the fewest number of course units (120) would require full time attendance ( 15 units per semester) for four years. Full time attendance really means "full time," as fifteen course units equates to 45 hours per week attending class and studying. Completing a degree with a higher unit requirement in a reasonable time requires
attending winter session, summer session and/or attending longer than four years.
${ }^{1}$ More detailed data can be found at the CSULB Institutional Research web site (http://daf.csulb.edu/offices/ima/ institutionalresearch/).
${ }^{2}$ CSULB is authorized to admit a small number of students with special talents who do not quite meet regular academic admission standards.
${ }^{3}$ From the CSULB Institutional Research web site http://daf.csulb. edu/offices/ima/institutionalresearch/. These data differ slightly from and are believed to be more complete than those available in CSU accountability data (Campus Reports, The Committee on Educational Policy of the California State University, Nov. 17, 2004) because they include graduates in the summer of the respective college years.
${ }^{4}$ These figures are based on Campus Reports, The Committee on Educational Policy of The California State University, Nov. 17, 2004. They may slightly understate rates because they omit summer graduates of the respective college years but they are the only source for the total eventual graduation rate figures.
${ }^{5} 1998$ cohort data are not yet available.
${ }^{6}$ From the CSULB Institutional Research web site http://daf.csulb. edu/offices/ima/institutionalresearch/. These data differ slightly from and are believed to be more complete than those available in CSU accountability data (Campus Reports, The Committee on Educational Policy of the California State University, Nov. 17, 2004) because they include graduates in the summer of the respective college years.
${ }^{7}$ These figures are based on Campus Reports, The Committee on Educational Policy of The California State University, Nov. 17, 2004. They may slightly understate rates because they omit summer graduates of the respective college years but they are the only source for the total eventual graduation rate figures.

## Accreditation

The University is accredited by the Western Association of Schools and Colleges (985 Atlantic Avenue, Suite 100, Alameda, CA 94501, 510-748-9001), the agency responsible for granting regional accreditation to colleges and universities in California, Hawaii, and Guam. It is accredited by the California State Board of Education and is on the list of approved institutions of the American Association of University Women. Additional information concerning University accreditation may be obtained from the Office of Academic Affairs. Additional information concerning departmental accreditation may be obtained from the department concerned or the Office of Academic Affairs.

- American Language Institute, UCES - Commission on English Language Program Accreditation, 1725 Duke Street, Suite 500, Alexandria, VA 22314-3457, phone: 703-519-2070
- Art - National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Business Administration - Association to Advance Collegiate Schools of Business - International, 600 Emerson Road, Suite 300, St. Louis, MO 63141-6762, phone: 314-872-8481
- Chemistry (undergraduate) - American Chemical Society, Committee of Professional Training, 1155 Sixteenth St., NW, Washington, DC 20036, phone: 202-872-4589
- Communicative Disorders (graduate) - American Speech-Language-Hearing Association, Council on Academic Accreditation, 10801 Rockville Pike, Rockville, MD 20852, phone: 301-8975700
- Computer Science (undergraduate)
- Computer Science Accreditation Commission (CSAC) of Computer Science Accreditation Board (CSAB), 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7703 - Dance - National Association of Schools of Dance, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Design - National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Dietetics (didactic program)
- Commission on Accreditation for Dietetics Education, American Dietetics Association, 216 West Jackson Boulevard, Chicago, IL 60606-6995, phone: 312-899-0040, ext. 5400
- Education - National Council for Accreditation of Teacher Education, 2010 Massachusetts Avenue, NW, Suite 500, Washington, DC 20036-1023, phone: 202-466-7496
- Engineering (undergraduate: Aerospace, Chemical, Civil, Computer, Electrical, Engineering Technology, Mechanical) - Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite \#1050, Baltimore, MD 21202, phone: 410-347-7710
- Family and Consumer Sciences - American Association of Family and Consumer Sciences, Council for Accreditation, 1555 King Street, Alexandria, VA 22314, phone: 703-706-4600; and Commission on Accreditation/Approval for Dietetics Education, American Dietetic Association, 216 West Jackson Boulevard, Suite 800, Chicago, IL 606066995, phone: 312-899-4872
- Health Science (graduate) - Council on Education for Public Health, 1015 Fifteenth Street, NW, Washington, DC 20005, phone: 202-789-1050
- Kinesiotherapy - Commission on Accreditation on Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, phone: 7312-553-9355
- Music - National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Nursing - Commission on Collegiate Nursing Education, 1 Dupont Circle, NW, Suite 530, Washington, DC 200361120, phone: 202-887-6791
- Physical Therapy - Commission on Accreditation in Physical Therapy Education, American Physical Therapy Association, Transpotomac Plaza, 1111 North Fairfax Street, Alexandria, VA 22314, phone: 703-706-3245
- Public Policy and Administration - National Association of Schools of Public Affairs and Administration, Commission on Peer Review and Accreditation, 1120 G Street, NW, Suite 730, Washington, DC 20005, phone: 202-628-8965
- Radiation Therapy - Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901, phone: 312-704-5300
- Recreation and Leisure Studies - National Recreation and Park Association, Council on Accreditation, 22377 Belmont Ridge Road, Ashburn, VA 20148, phone: 703-858-0784
- Social Work - Council on Social Work Education, Commission on Accreditation, 1725 Duke Street, Suite 500, Alexandria, VA 22314, phone: 703-519-2044
- Theatre Arts - National Association of Schools of Theatre, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- University Art Museum - American Association of Museums, Suite 200, 1225 Eye St., NW, Washington, DC 20005, phone: 202-289-1818


## CSULB Statement on Civility and Acts of Violence

California State University, Long Beach, takes pride in its tradition of maintaining a civil and non-violent learning, working, and social environment. Civility and mutual respect toward all members of the University community are intrinsic to the establishment of excellence in teaching and learning. They also contribute to the maintenance of a safe and productive workplace and overall healthy campus climate.

The University espouses and practices zero tolerance for violence against any member of the University community (i.e., students, faculty, staff, administrators, and visitors). Violence and threats of violence not only disrupt the campus environment, they also negatively impact the University's ability to foster open dialogue and a free exchange of ideas among all campus constituencies.

To fulfill this policy, the University strives: 1) to prevent violence from occurring; and 2) to enforce local, state, and federal laws, as well as University regulations, regarding such conduct. The University also has established procedures for resolving and/or adjudicating circumstances involving violence, as well as threats of violence. A threat of violence is an expression of intention that implies impending physical injury, abuse, or damage to an individual or his/her belongings. All allegations of such incidents (i.e., acts and threats) will be aggressively investigated. Allegations that are sustained may result in disciplinary action up to and including dismissal from employment, expulsion from the University, and/or civil and criiminal prosecution.

Members of the campus community are encouraged to promptly report any acts of violence, threats of violence, or other behavior which by intent, act, or outcome harm themselves or others. (Approved October 1997.)

## Equal Access and Opportunity

California State University, Long Beach affirms the equal worth of every individual and of distinctive groups of people, and fosters fair and equal treatment and access for all members of the university community. Therefore, the University is committed to the principles of equal opportunity in education and employment, to policies and practices that ensure equal opportunity and consideration, and to the protection of civil rights.

It is the policy of California State University, Long Beach to provide programs, services, and benefits, including employment, without regard to race, religion, color, ancestry, ethnicity, gender, marital status, pregnancy, national origin, age, mental or physical disability, sexual orientation, special disabled veterans' status, Vietnam-Era or other covered veteran status.

Reasonable accommodation to disability is considered a means of establishing equal opportunity.

Freedom From Discrimination, Harassment and

## Retaliation

California State University, Long Beach affirms that students, employees, volunteers, members of the public, and recipients of services and/or benefits provided by CSULB have the right to a University free from discrimination and harassment, including hostile environment, on the basis of: Race, color, ancestry national origin, ethnicity, gender, religion, sexual orientation, marital status, disability, age, pregnancy, Veteran status-Vietnamera/Special Disabled and Other Covered* (*http://www.opm. gov/veterans/html/vgmedal2.htm)

Retaliation for exercising one's right to protection from discrimination and/or harassment or for participating in the investigation of a complaint will not be tolerated.

This policy applies to all California State University, Long Beach programs and activities, including, but not limited to: Educational, cultural, recreational, and social and/or athletics programs and activities provided, sponsored, administered, or assisted, by CSULB; CSULB academic programs and/or activities; CSULB-sponsored off-campus programs; housing supplied or regulated by CSULB; the administration of educational policies, admission policies, and employment policies; employment actions, including but not limited to recruitment, hiring, education, upgrading, promotion, transfer, demotion, layoff, recall, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship; choice of contractors and suppliers of good and services; provision of services and benefits to CSULB students, employees, volunteers, or the public; receipt of CSULB services and benefits provided by CSULB contractors or vendors.

Federally-required Affirmative Action Plans are available for inspection in the University Library, Reserve Book Room during normal business hours.

## Nondiscrimination Policy

## Race, Color, and National Origin

The California State University complies with the requirements of Title VI and Title VII of the Civil Rights Act of 1964, as well as other applicable federal and state laws prohibiting discrimination. No person shall, on the basis of
race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

## Disability

The California State University does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and various state laws prohibit such discrimination. Perrin Reid, Esq., Director, Equity and Diversity, has been designated to coordinate the efforts of CSULB to comply with all relevant disability laws. Inquiries concerning compliance may be addressed to this person at USU-301, (562) 985-8256.

## Sex/Gender

The California State University does not discriminate on the basis of sex or gender in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972 and certain other federal and state laws prohibit discrimination on the basis of sex in education programs and activities operated by CSU, Long Beach. Such programs and activities include admission of students and employment. Inquiries concerning the application these laws to programs and activities of CSULB may be referred to Perrin Reid, Esq., the campus officer(s) assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office of Civil Rights, Region IX, 50 United Nations Plaza, Room 239, San Francisco, California 94102.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

## Sexual Orientation

By CSU Board of Trustees policy, the California State University does not discriminate on the basis of sexual orientation.

## Confidentiality

The University is committed to maintaining a safe environment in which individuals can be unafraid to discuss concerns. Any member of the University community may seek general information and guidance about discrimination, harassment, and retaliation issues in confidence and anonymously.

However, the University's obligation is to take appropriate action to stop prohibited behavior and to prevent retaliation. This may preempt any request for anonymity or confidentiality.

## Complaint Resolution Procedures

Resolution of discrimination, harassment, and retaliation complaints is available to all members of the University community. The procedures vary but are all intended to resolve complaints in a timely and responsive manner at the earliest possible stage.

For employees represented by a collective bargaining unit, the collective bargaining agreement outlines procedures, process and timelines. Information is available
from your campus union representative, or online at: http://www.calstate.edu/LaborRel/Contracts_HTML/ contracts.shtml

For employees not eligible to file a complaint or grievance under a collective bargaining agreement or whose collective bargaining agreement incorporates CSU systemwide complaint procedure, the complaint procedure is outlined in CSU Executive Order 928. It is available online at: http://www.calstate.edu/eo/EO-928.html

For students or other members of the campus community, guests, visitors, affiliates, and associates, the Campus Complaint Resolution Procedure will apply. Discrimination complaint forms are available in the Office of Equity \& Diversity, USU 301.

## Campus Complaint Procedure - Informal

The Informal Discrimination Complaint Resolution Procedure is initiated by speaking with one of the following persons of your choice: Immediate Supervisor; Program/ Office Director; Department Chairperson/Director; Dean/ Associate Dean; Designated Resource Person (list available from the Office of Equity \& Diversity or on-line at http://www. csulb.edu/depts/oed/resources/res-r3-2.htm); Director of Equity \& Diversity.

These individuals are expected to: Provide information about University policy and procedures, ensure the safety and security of the complainant in the immediate environment, ensure the due process of the individual(s) charged, ensure confidentiality to the extent possible by and with all parties, report the complaint to the Director of Equity \& Diversity within five (5) working days from receipt of the complaint, consult with the Director of Equity \& Diversity at least once per week until the complaint is resolved, an outcome is reached, or the complaint is referred to the Director of Equity \& Diversity for review and consideration, maintain notes of the complaint and log of all contacts made, report monthly to the Director of Equity and Diversity of the number, nature, and outcome of the complaints. The outcome of all Informal complaints must be reported to the Director of Equity \& Diversity. If the proposed remedy is unsatisfactory to the complainant, or if the complaint is not resolved in the Informal process, the complaint may proceed to the Formal level.

## Campus Complaint Procedure - Formal

An allegation becomes a formal complaint only when it is filed in writing on an official University Discrimination Complaint Resolution form and is signed, or when the Director of Equity \& Diversity files the complaint. The form is available from the Office of Equity \& Diversity and the office website.

Within 5 working days from receipt or initiation, the alleged offender will be notified of the complaint by the Director of Equity \& Diversity.

Within 10 working days from receipt, the alleged offender is required to respond in writing. A copy of the response shall be provided to the complainant.

If agreement is reached, the Director of Equity \& Diversity shall provide all concerned parties with a written statement of the resolution.

If agreement is not reached, the Director of Equity \& Diversity will proceed to evaluate the applicability of

University policy prohibiting discrimination, harassment, and retaliation to the alleged behavior.

The Director of Equity \& Diversity is authorized to interview anyone deemed necessary to the investigation. The investigation will normally be completed within thirty (30) working days.

Time limits may be extended or waived by the President upon request of the Director of Equity \& Diversity.

Within five (5) working days of the conclusion of the investigation, the Director of Equity \& Diversity will: submit a report of the complaint, investigation, and findings to the appropriate division executive and, notify the complainant and party charged of the finding.

Within twenty (20) working days from receipt of the report of the investigation the division executive will notify the Director of Equity \& Diversity of resulting action.

Within five (5) working days of receiving notification of the resulting action, the Director of Equity \& Diversity will notify the parties to the extent allowed of the action taken or proposed by the division executive.

## The Principles

California State University, Long Beach is a comprehensive, urban university. The University has a professional, cultural, and ethical commitment to provide a climate that enables each individual to realize his/her potential for excellence and that nurtures academic growth and professional development.

Diversity is both an ideal and an imperative. California State University, Long Beach takes pride in the diversity of its student body and employees, and affirms that this diversity enriches the work and learning environment of the campus. For this reason the recognition of diversity in our University community extends beyond the limits established by federal or state laws or regulations.

In addition to fully meeting its obligations of nondiscrimination under federal and state law, California State University, Long Beach is committed to creating a community in which a diverse population can learn, live, and work in an atmosphere of tolerance, civility, and respect for the rights and sensibilities of each individual, without regard to professional rank, employment status, economic status, ethnic background, political views, or other personal characteristics or beliefs.

California State University, Long Beach takes seriously its tradition of maintaining civility and mutual respect toward all members of the University community. These qualities are intrinsic to the establishment of excellence in teaching and learning. They also contribute to the maintenance of a productive workplace and an overall positive campus climate. Civility and mutual respect only thrive when equal opportunity and access exist, and when retaliation for exercising rights, privileges and obligations is not feared. [Policy 03-09]

Perrin Reid, Esq., Director of Equity and Diversity, is the designated campus coordinator for Equal Employment Opportunity, Affirmative Action, and Civil Rights under Executive Order 11246, the Vietnam-Era Veterans' Readjustment Assistance Act, the Americans with Disabilities Act, the Rehabilitation Act, and Title IX.

## Campus Standards of Conduct

Both productivity at work and the learning process are significantly impaired by alcohol abuse and the use of illicit drugs. Substance abuse among college students inhibits their educational development and is of serious nationwide concern.

California State University, Long Beach is dedicated to the elimination of the use of illicit drugs and alcohol abuse. The University is making every effort to create an environment that promotes and reinforces good health. This includes responsible living, respect for community and campus standards and regulations, individual responsibility within the community, and the intellectual, social, emotional, ethical, and physical well-being of all members of the campus community.

On campus property, the solicitation, sale, use or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics, as those terms are used in California statutes, are prohibited.

Consumption of alcohol is prohibited in individual offices, classrooms, laboratories, or generally accessible public or open areas, such as the quad and athletic fields.

Information regarding campus policies on the consumption of alcohol may be obtained by calling the Office of Student Life and Development at 985-8668.

Pursuant to Title 5 of the California Code of Regulations, violations by students of the above regulations, when campus related, may, after due process, result in the student being placed on probation, being suspended, or being expelled. Additionally, violations of laws committed on campus property, or at a campus event, will also be subject to referral and prosecution through off-campus authorities. Penalties by enforcement agencies for violations of the law may include imprisonment, fines, or both; these are in addition to administrative sanctions imposed by the University.

More detailed descriptions of student regulations concerning drugs, or alcohol, may be found elsewhere in the CSULB Catalog, or in the Residence Hall Calendar and Handbook, or the Regulations for Campus Activities, Organizations and the University Community.

Pursuant to Education Code Section 89535, employees may be disciplined, up to and including termination, for the following causes:

1. Conviction of criminal offenses involving the illegal use of drugs.
2. Appearing for work impaired by the use of alcohol and/or controlled substances.
3. Addiction to the use of controlled substances.

More detailed descriptions of employee regulations concerning drugs, or alcohol, may be found in the Administrative Policies and Procedures Handbook and the Faculty and Staff Handbooks.

## Don't Put Your Health at Risk

To become dependent upon chemicals such as illicit drugs and/or alcohol is to put your health at risk. Chemical dependency is a condition in which the use of mood altering substances such as drugs or alcohol is associated with problems in any area of life on a more or less continuing basis.

One does not, however, have to be addicted or chemically dependent to suffer health risks from the use of illicit drugs or alcohol.

Alcohol and illicit drugs (in all the many forms) may, and often do, impair physical coordination and judgement, diminish control over impulsive behavior, and cause many short- and long-term health consequences.

Alcohol-related illnesses now represent the third leading cause of death in the United States exceeded only by cancer and heart disease, and medical research has established very strong evidence that alcohol abuse contributes significantly to cancer and heart disease. There is clear evidence of serious negative effects on babies due to use of illicit drugs and alcohol by the mother during pregnancy.

## If You Have a Problem, We Want to Help

The California State University, Long Beach Health Center offers substance abuse programs for students, faculty and staff. These include: a Student Assistance Program for students; and Employee Assistance Program for faculty and staff; and an Athletic Assistance Program for student athletes (offered as a separate program due to NCAA testing and eligibility requirements and conference affiliation rules for competition).

An experienced and specially trained therapist under the supervision of the Medical Director serves as the coordinator and counselor for these programs, and medical doctors, other health professionals, and counseling psychologists are available for consultation. All contacts with the Health Center and professional personnel are confidential.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Shifra Teitelbaum, Student Health Center, (562) 9854609.

The California State University, Long Beach Health Center is located at the corner of State University Drive and Merriam Drive. The telephone number is (562) 985-4771.

## Security on Campus

## Campus Security Act

California State University, Long Beach University Police, obtains its powers to arrest from the California Penal Code and the California Education Code.

## Reporting Emergencies on Campus

The on-campus emergency phone number is 9-1-1. The non-emergency phone number is (562) 985-4101. Any problems concerning behavior of members of the campus community, thefts, vandalism, fire, and all related matters should immediately be brought to the attention of the University Police.

## Procedures for Reporting Crimes on Campus

Whenever students or employees become victims of a crime while on the campus of CSULB, or whenever they have witnessed a crime or feel that there is a possibility that a crime is about to occur, they should notify University Police as soon as possible. There are numerous emergency phones located throughout the campus and parking lots,
which are direct lines to the University Police dispatcher. Contact University Police by simply locating the nearest emergency phone or by using the emergency phone that is located in all elevators. Individuals may also contact the mobile police units that patrol the campus on a 24 -hour schedule. Parking enforcement officers also patrol the parking lots and have direct radio contact with the police dispatcher and the mobile police units. The University Police is located at the far east end of campus, between parking lot " 11 " and parking lot " 9 " on Palo Verde Avenue. The Department is open 24 hours a day to respond to any call for service or to any emergency.

## Opening Classrooms

Custodians are responsible for unlocking all outside doors and classrooms which do not contain equipment (audiovisual, computers, etc.) at 7:00 am. University Police personnel are responsible for opening buildings on weekends and holidays. Persons requesting a door opened must have proper authorization. Questions of interpretation and special access matters should be directed to University Police.

## Security of Buildings

It is the responsibility of the person assigned to an office to ensure that the door is locked at the conclusion of work. Further, it is the responsibility of the last instructor teaching in a classroom to ensure that the door is secure and the lights are turned off when the class is concluded. In areas where equipment technicians are employed, it will be their responsibility to secure all doors at the end of the working day. University Police will ensure that all buildings are secured every night. An individual desiring to remain in a building after normal closing hours is required to notify University Police.

Personnel who require access to buildings and rooms must request keys with appropriate departmental approval. Individuals granted special access to rooms and buildings must assume personal responsibility for facilities and equipment during the time they are using these facilities and equipment. Should a faculty or staff member require access to a particular building or room after normal instructional or working hours, presentation of identification to University Police is required. Failure to present proper identification to University Police is grounds to deny the request for access to the building. Graduate Assistants and other students who require entrance to a building during other than normal hours must have proper identification and prior approval in writing from the appropriate administrator. This authorization must be on file with University Police.

Anyone who has difficulty in gaining authorized access to an area or who needs assistance in securing a building or room should contact University Police.

## Policy Concerning Law Enforcement on Campus

California State University Police Officers are sworn Law Enforcement Officers under California Penal Code, Section 830.2, and in compliance with State Statute meet the peace officer standards and training requirements mandatory for all California law enforcement officers. In addition, California State University Police Officers undergo training
specially designed to meet the needs and problems of a contemporary university community.

The primary responsibility of the University Police is the preservation of the public peace and the protection of life and property against all unlawful acts. The department will take all possible measures to prevent crime and accidents, investigate thoroughly all suspicious and criminal activity, and apprehend offenders quickly in all cases where crimes are committed.

## Type and Frequency of Programs to Inform Campus Personnel About Security Procedures and Practices

University Police actively invites fraternities and sororities, as well as sports groups and clubs on campus, to participate in the "Acquaintance/Date Rape" lectures. These classes are scheduled flexibly at no charge to meet the group's needs. The University Police also conducts new employee, new student, and special groups orientations. Officers routinely address residence hall students on a variety of topics, such as drug and alcohol abuse, and the problem of sexual assaults.

## Programs Designed to Prevent Crime

University Police offers an evening escort service for all students and employees. They are picked up and escorted to their vehicles or to the residence halls.

University Police provides employees with information about California law and how to avoid being a victim. Advice is also provided about securing valuables and protecting vehicles.

## Statistics on Major Crimes

University Police reports statistics on major crimes monthly to the Office of the President, to the Chancellor's Office, and to the Department of Justice.

Information concerning CSULB policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus may be obtained from University Police, (562) 985-4101.

Information concerning CSULB annual crime statistics reports may be obtained from University Police, (562) 9854101.

## Firearms on Campus

Any person who brings or possesses a firearm on the grounds of the University, without the prior written permission of the Chief of University Police, or as otherwise provided by law, is in violation of State law (California Penal Code,Section 626.9), and University Regulations, and is punishable by imprisonment. Any person who brings or possesses a device that expels a metallic projectile, such

as a $B-B$ or pellet, through the force of air pressure, CO2 pressure, or spring action, or a spot-marker gun, on the grounds of the University, without the permission of the University Police, is in violation of University Regulations; such action may result in University or legal sanctions.

## Off-Campus Monitoring of Criminal Activity at Campus Events

The University Police Department has a close working relationship with the City of Long Beach Police Department. The meetings are on a monthly basis and discuss areas of possible problems. Reports are exchanged with LBPD, LASO, and other police departments.

Policy for the Use of Alcohol and Drugs on Campus
Alcoholic beverages generally may not be consumed on campus except at sponsored events and with specific approval of the Director of Student Life and Development. Alcoholic beverages may only be consumed on University premises that have been licensed by the Department of Alcoholic Beverage Control or on other University premises at "approved group sponsored events." Sponsors of such events must obtain prior written approval from the office of Student Life and Development. Approval normally will be limited to events in such areas as the University Student Union, the Soroptimist House, or the Chart Room.
The solicitation, sale, use or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics, as those terms are used in California statutes, is prohibited on campus property. Excepted are drugs which are lawfully prescribed or lawfully permitted for the purpose of bona fide research, instruction or analysis.

CSULB is dedicated to the elimination of the use of illicit drugs and alcohol abuse. The CSULB Student Health Center offers substance-abuse consultation programs for students, faculty and staff who may need assistance in overcoming the personal problems associated with alcohol or drug abuse. These programs include a Student Assistance Program for students, an Employee Assistance Program for faculty and staff, and an Athletic Assistance Program for student athletes (offered as a separate program due to NCAA requirements). All contacts with the Health Center and its personnel are confidential.

More detailed descriptions of campus regulations concerning alcohol and drugs may be found in the current editions of the CSULB Catalog, the CSULB Schedule of Classes, Regulations for Campus Activities, Organizations, and the University Community, and the Faculty, Staff and Student Handbooks.

## Policy on Sexual Assault

Students, faculty, and staff who are victims of sexual assault committed at or upon the grounds of the University, or upon off-campus grounds or facilities maintained by affiliated student organizations, are required by law to be advised of specified information, to include treatment, related campus procedures, referral options, and other assistance which may be available [California Education Code, Section 67385]. This policy is designed to provide the written procedures and information required.

Rape, including acquaintance rape, or any other form of sexual assault, will not be tolerated by California State University, Long Beach. Where there is evidence that campus- related sexual assault has been committed, severe campus disciplinary action will be initiated. Such campus disciplinary action may include, after due process, the possibility of dismissal, suspension or disenrollment. Additionally, where the victim initiates criminal action, the perpetrator is subject to criminal penalties which may include fines and imprisonment.

## Sexual Assault

The term "sexual assault" includes, but is not limited to, rape, acquaintance rape, sexual battery, forced sodomy, forced oral copulation, rape by a foreign object, or threat of sexual assault [California Education Code, Section 67385(d)].

Rape is a criminal offense. "Rape" is defined as an act of sexual intercourse accomplished with a person not the spouse of the perpetrator, under specified circumstances. For example, it may involve the use or threat of force, violence, retaliation, or fear of or actual immediate and unlawful bodily injury. Rape also occurs when the victim is incapable of giving legal consent, for example, when: a) the victim has a mental disorder, or is developmentally or physically disabled; or b) the victim is prevented from resisting the assault due to intoxicating substances (e.g. alcohol or drugs); or c) the victim is unconscious of the nature of the act, and such condition was known or reasonably should have been known to the accused (Reference: California Penal Code, Section 261, and the following sections).
"Acquaintance Rape" is forced sexual intercourse undertaken by someone the victim knows, against the will of the victim or as a result of threats, force or fear.
"Sexual Battery" is defined as the touching of an intimate part of another person, if the person is unlawfully restrained and if the touching is against the will of the person touched, for the purpose of sexual arousal, sexual gratification, or sexual abuse (Reference: California Penal Code, Section 243.4).
"Assault with intent to commit a sexual battery" is defined as an unlawful attempt, coupled with the present ability, to commit a violent injury (e.g., rape) or sexual battery on the person of another. (Reference: California Penal Code, Section 220; 240; 261; and following sections).
"Consent" is defined as positive cooperation in an act or attitude pursuant to an exercise of free will. The person must act freely and voluntarily and have knowledge of the nature of the act or transaction involved [Reference: California Penal Code, Section 261.6; 266(c)].
"Unlawful Sexual Intercourse with a minor" is an act of sexual intercourse accomplished with a person not the spouce of the perpetrator, where the person is under the age of 18 years (California Penal Code, Section 261.5).

Any person who willfully and lewdly commits any lewd or lascivious act upon or with the body or any part of a child under the age of 14 years with the intent of arousing, appealing to, or gratifying the sexual desires or passions of either the child or defendant is guilty of a felony. Any person who commits any act in the previous sentence with a person 14 or 15 years old, and the defendant is at least 10 years older than the child is guilty of a public offense (California Penal Code, Section 288). Any person who intentionally gives, transports, provides, persuades or makes available to another a child under age 16 for lewd or lascivious acts is guilty of a felony, punishable by fine and imprisonment [California Penal Code, Section 266(j)]. Every person who annoys or molests any child under the age of 18 is punishable by fine and imprisonment (California Penal Code, Section 647.6).

## University Jurisdiction

California State University, Long Beach views seriously its obligation to uphold the laws of the larger community of which it is a part. An association with the University does not exempt a person from local, state, or federal laws, but rather imposes the additional obligation to abide by all of the rules and regulations of the California State University.

A student charged with a sexual abuse or sexual assault or sexual battery violation which is campus-related may be subject to prosecution under appropriate California criminal statutes, as well as being subject to student discipline under the Student Disciplinary Procedures for the California State University (Reference: Chancellor's Executive Order 628, "Student Disciplinary Procedures for the California State University"; and Title V, California Code of Regulations, Section 41301-41304, "Student Discipline").

Employees charged with a sexual abuse violation which is campus-related may be subject to prosecution under appropriate California criminal statutes, as well as being subject to discipline under the California Education Code, Sections 89535-89540. Such campus disciplinary action for employees may include demotion, suspension, or dismissal.

## Campus Reporting Procedures

Persons involved in, or possessing knowledge of, a campus-related abuse violation are strongly encouraged to notify University Police immediately. University Police may be contacted by:

- using any of the blue lighted telephones
- by depressing the red button on all public pay telephones
- simply dialing 985-4101 or 9-1-1

An officer will be dispatched and will assist the victim to a medical facility for medical care and collection of evidence. An officer will assist the victim with a police report should the victim desire to make one. An officer will remain available to the victim until a friend or relative can be located. When requested, a female investigator trained in sexually related violations will be available.

University Police shall contact one or more of the following by telephone, memorandum or both. Alternatively,
the victim may contact any of the following personnel or departments.

1. Associate Vice President for Student Services
(562) 985-5587, Brotman Hall 377
2. Director, University Counseling Center
(562) 985-4001, Brotman Hall 226
3. Director, Student Health Center (562) 985-4771, Health Center
4. Director, Staff Personnel Services (562) 985-4031, Brotman Hall 335
5. Director, Equity and Diversity (562) 985-8256, Student Union, Rm 301
6. Director, Judicial Affairs (562) 985-5270, Brotman Hall 377
7. Director, Women's Resource Center (562) 985-8575, Liberal Arts 3-105
8. Director, Housing and Residential Life (562) 985-4187, Parkside Commons

The respective units or persons contacted will be responsible for reports, as may be required by law, to be filed for their respective unit, e.g., violations under the Child Abuse Reporting Law, Jeanne Clery Act or Megan's Law.

## Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

Access crime statistics for CSULB. These are mandated statistics known as the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Hard copies of this brochure may be obtained at either our main police department, our substation, by calling our main telephone line (562) 985-4101 or by downloading it in PDF format. Both are located on this campus; the main station is located at 1250 Bellflower Blvd., the most eastern boundary of CSULB and our substation is located at the Student Union outside courtyard in the center of the CSULB. This report is prepared in cooperation with the Police agencies surrounding our main campus and our alternate sites, Housing and Residential Services, the Judicial Affairs Office and the Division of Student Affairs. Each entity provides updated information on their educational efforts and programs to comply with the Act.

The following are among the options available to a victim and more than one option may be exercised:

1. Criminal Prosecution: University Police - (562) 985-4101 Emergency: 9-1-1
2. Civil Action: Consult an attorney.
3. University Disciplinary Process, where accused is:
A. Faculty or Staff: Employee Relations Administrator (562) 985-4128; BH 300
B. Student: Director, Judicial Affairs (562) 985-5270; BH 377
4. Informal Mediation: Office of the University Ombuds (562) 985-5983.
5. Alternative Campus Housing Assignments: Director, Housing (562) 985-4187; Housing Office
6. Academic Assistance:
A. University Counseling Center (562) 985-4001; BH 226
B. Women's Resource Center (562) 985-5466; LA3-105
C. Academic Advising Center (562) 985-4837; Academic Services, room 125

In the event there are requests for information from the press, concerned students, parents, and others, prudence will be exercised, and when required by law, confidentiality will be maintained. When appropriate, only the Department Director (for matters strictly within the Director's purview), or the University Director of Public Affairs (for inquiries by the media), will respond.

Victims are advised that there could likely be a need to identify both the victim and the assailant in the course of investigation and hearings under University student disciplinary proceedings, as well as under employee disciplinary proceedings, or criminal prosecutions. In the case of student disciplinary actions against an assailant, the victim is required to be promptly notified by the Director, Judicial Affairs of the status of the proceedings, and the general terms of the disposition.

Persons are reminded of the importance of preserving such evidence as may be necessary to the proof of criminal sexual assault. With respect to sexual assault involving student discipline, both the accused and the accuser are entitled to have an advisor present during a campus disciplinary proceeding, and to be informed of the outcome of the campus student disciplinary proceeding. Student victims of sexual assault may request changes in academic and living arrangements precipitated by the offense where such changes are reasonably available.

## Support Services

Sexual assault violations often result in physical harm, psychological harm, or both. Even if the victim decides not to report the incident to authorities, it is urged that the victim seek medical and counseling assistance for potential emotional trauma and the possibility of sexually transmitted diseases.

- The University Counseling Center provides crisis counseling as well as ongoing assistance to students who have experienced sexual assault; (562) 985-4001.
- The University Student Health Center offers routine medical examinations, including pregnancy tests and tests for sexually transmitted diseases; (562) 985-4771.
- The University Women's Resource Center provides video tapes, books, and brochures for both men and women, and referrals to community services are also provided; (562) 985-5466.
- S.A.R.T (Sexual Assault Response Team) The University Police is an active participant of the Long Beach S.A.R.T. process. This process offers individual forensic exams to victims of sexual assault and child molestation. Coordination is with University Police, Long Beach Police Department, District Attorney's office, a forensic nurse and a rape crisis counselor. The police dispatcher activates the S.A.R.T process after the officers have connected with the victim. (562) 986-4101 or 9-1-1. S.A.R.T. is located at Long Beach Community Hospital. A victim may be driven to Long Beach Community Hospital, 1720 Termino, Long Beach for the S.A.R.T. services. The emergency room staff will contact S.A.R.T. directly. Additionally, referrals may be made to the Rape Crisis Hotline - Long Beach area (562) 597-2002 or to the Sexual Assault Crisis Agency, (562) 433-1287 which offers a 24-hour crisis hotline:
A. The Rape Crisis Hotline - South Bay area, (310) 545-2111;
B. The Rape Crisis Hotline - Orange County, (714) 831-9110;
C. Rape Treatment Center - Santa Monica Hospital (310) 319-4000;
D. The Victim Witness Assistance Hotline, (714) 957-2737;
E. Safe At Home Confidential Address Program 877-3225227, www.ss.ca.gov/safeathome/.
Also, the University Counseling Center and the Career Development Center maintain lists of referrals within the community which deal with the issues of rape and sexual assault crisis, including legal, medical, and therapeutic support services. The phone number for the University Counseling Center is (562) 985-4001. The Career Development Center can be reached at (562) 985-4152.


## Victims of Violent Crime Statute

A person who has sustained physical injury as a direct result of a crime of violence, or is legally dependent for support upon a person who has sustained physical injury or death as a direct result of a crime of violence (or, in the event of a death caused by a crime of violence, has legally assumed or voluntarily paid the medical or burial expenses incurred as a direct result thereof) may qualify for indemnification by the State of California for the out-of-pocket wages, medical and/or burial expenses incurred as a result of the crime (California Government Code, Section 13959, et seq.). Claims must be filed with the State Board of Control for the State of California. The Statute provides that, absent certain extenuating circumstances, a claimant has one year from the date of the crime to file his or her claim with the State Board of Control. For further information regarding this program, contact:

| University Police <br> Program | Victims of Violent Crime |
| :--- | :--- |
| CSU, Long Beach | State Board of Control |
| 1250 Bellflower Blvd. OR | State Office Bldg. No. 1, Rm. |
| 102 |  |
| Long Beach, CA 90840 Sacramento, CA 95814 <br> Telephone: 562-985-4101 Telephone: 916-445-1540 |  |

## Privacy Rights of Students in Education Records

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232 g ) and regulations adopted thereunder (34 C.F.R. 99) set out requirements designed to protect students' privacy in their records maintained by the campus. The statute and regulations govern access to certain student records maintained by the campus and the release of such records. The law provides that the campus must give students access to records directly related to the student, and must also provide opportunity for a hearing to challenge the records if the student claims they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under this law does not include any right to challenge the appropriateness of a grade determined by the instructor. The law generally requires the institution to receive a student's written consent before releasing personally identifiable data about the student. The institution
has adopted a set of policies and procedures governing implementation of the statutes and the regulations. Copies of these policies and procedures may be obtained at the Office of Enrollment Services or the Office of Judicial Affairs. Among the types of information included in the campus statement of policies and procedures are: (1) the types of student records maintained and the information they contain; (2) the official responsible for maintaining each type of record; (3) the location of access lists indicating persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) student access rights to their records; (6) the procedures for challenging the content of student records; (7) the cost to be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. The Department of education has established an office and review board to investigate complaints and adjudicate violations. The designated office is: Family Policy Compliance Office, U.S. Department of Education, Washington, D.C. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. CSULB designates the following items authorized by FERPA as Directory Information: student's name, address (see below for conditions), telephone number (see below for conditions), e-mail address, photograph, date of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, grade level, enrollment status, degrees, honors, and awards received, and the most recent previous educational agency or institution attended by the student. Addresses and telephone numbers for currently enrolled students will be released to CSULB personnel and units solely for the purpose of conducting legitimate University business. They may not be shared with individuals or organizations outside the University except in accordance with the following provisions. Addresses and telephone numbers may be released for non-commercial use by individuals or organizations outside the University provided the requests for such information have been reviewed and approved by the appropriate University personnel. Requests from the academic offices of accredited educational institutions shall be reviewed by the Provost and Senior Vice President for Academic Affairs or designee. All other requests shall be reviewed by the Vice President for Student Services or designee. Otherwise, the University may disclose any of the items designated as "directory information" above without prior written consent, unless the student provides a request that certain information not be released (non-disclosure). Requests for non-disclosure may be made directly by the student utilizing their self-service account in the student system via the Internet. If the student does not have access to the Internet, their request for non-disclosure must be requested on the "Authorization to Withhold Student Information" form, available in the Office of Enrollment Services. Specifying items as directory information allows the University to disclose this information without prior written consent. It does not require that the University release the information except under court direction. In addition to the above, the Director of Athletics may provide
information concerning participation of students in athletic events, including the height and weight of athletes. The University will also respond to requests for information regarding the employment status of students serving as Teaching Associates (TAs), Graduate Assistants (GAs), or Instructional Student Assistants (ISAs) and the departments that employ them.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons have responsibilities in campus' academic, administrative, or service functions and have reason for accessing student records associated with their campus or other related academic responsibilities. Student records may also be disclosed to other persons or organizations under certain conditions (e.g., as part of accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; or to other institutions to which the student is transferring).

## Career Placement Information

The Career Development Center office may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. Any such data provided must be in a form that does not allow fo the identification of any individual student. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University system.

## Use of Social Security Number

Applicants are required to include their correct social security numbers in designated places on applications for admission pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code (26 U.S.C. 6109). The University uses the social security number to identify students and their records including identification for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the University to file information returns that include the student's social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. That information is used by the IRS to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.

Taxpayers who claim Hope Scholarship or Lifetime Learning tax credit will be required to provide the campus with their name, address, and Taxpayer Identification Number to the campus.

## Student Grievance

The California State University, Long Beach Student Grievance Procedure is designed to give the campus community a grievance structure in those instances where no other policy or procedure exists. (This policy does not
cover grade appeals, prohibited discrimination, etc. where there are existing policies).

The Office of the Vice President for Student Services has staff to help students understand the details of the Grievance Procedure and may be called on for assistance.

## What are Student Grievance Procedures?

Student Grievance Procedures at California State University, Long Beach are intended to provide a formal, standardized means for students to seek redress concerning actions of the faculty, administrators, or staff of the University. Further, the purpose is to establish standardized procedures and safeguards which shall be followed by the University in the adjudication of grievances.

## What is a Grievance?

A grievance is a formal complaint by a student arising out of an alleged action of the faculty, administrators, or staff of the University. The person or entity against whom the complaint is made is referred to in this document as the "respondent." Such action is alleged by the student to be an unauthorized or unjustified action which adversely affects the status, rights, or privileges of the student.

Students are reminded that the Grievance Procedure is not designed to replace the open communication and understanding that are vital to the academic process. The student may withdraw the grievance at any stage and the process will immediately terminate. During all stages of the grievance, the burden of proof will be on the student.

## What is a Statement of Grievance?

The statement of grievance is a clear, simple statement according to the student's understanding of what happened. It should provide enough information to give the committee a complete understanding of the situation and the nature of the remedy sought from the student's perspective. The following steps are designed to assist in the preparation of a Grievance Statement.

## How does one Grieve?

## Informal Procedure

## Step 1:

Informal discussion between the concerned parties is always the place to start. If attempts to resolve the problem at this level fail, or if the person alleged to have aggrieved the student cannot be reached by reasonable effort, or if the nature of the grievance is such that an informal communication with the respondent is not feasible, the student must meet informally with the employee's department Chair, or the program's Director. Note: In the event that the respondent is at the level of a Dean or higher, the complaint should be directed to the responsible person at the next administrative level. For non-academic matters, throughout these procedures, the term "Dean" refers to the responsible individual of comparable level, e.g., typically an Associate Vice President, or Vice President.

## Step 2:

If after ten instructional days beyond the informal meeting a satisfactory solution is not found, the department Chair or program Director will meet with the student.

Within 15 instructional days of the receipt by the Chair or program Director of the student's complaint, the Chair
or program Director will investigate the allegations and reach a conclusion. The Chair or program Director shall promptly communicate the decision to the student and the respondent. If either the student or the respondent disagrees with the chair's or program director's findings, recommendations, or decision, that person may appeal under step three.
Step 3:
If the student or respondent is not satisfied with the results of step two, or if the grievance is against the Chair of a department or Director of a program, the student may consult with the appropriate college Dean (academic) or responsible person at the next administrative level (non-academic).

## Formal Procedure

Step 1:
In the event the informal process does not bring satisfactory resolution to the complaining student or the respondent, then either party may initiate the formal procedures by writing a letter of complaint and submitting it to the appropriate department Chair or program Director. The Chair or Director then submits a copy of the letter of complaint to the dean ${ }^{1}$ and the responding party. The responding party will reply in writing, normally within 10 instructional days, to the Chair or Director. The Chair or Director submits a copy of the reply to the other party and the Dean.

## Step 2:

The Dean may then: (1) Normally within 10 instructional days after reviewing the letter of complaint and the response, the Dean may seek additional information from the parties or witnesses, and (2) review the matter and render a decision or (3) form a hearing committee which will make a recommendation to the Dean as follows:
A. The hearing committee in academic matters will consist of two faculty members, two student members and one staff member. The two students and the two faculty shall both be within the college, with one student and one faculty within the department and one student and one faculty outside the department of the respondent. The staff member shall be from within the college.
B. The hearing shall normally be held within 10 instructional days after the hearing committee is formed unless the letter of complaint is withdrawn or there occurs an earlier settlement of the matter. Internal hearing procedures regarding the conduct of the hearing shall be developed by each college and be made available to both parties. Each party may have
one representative at the hearing who may be anyone other than legal counsel.
C. In matters outside an academic department in which no other policy or procedures apply, the responsible person one level above the employee's supervisor shall have the option of establishing an all-University hearing committee consisting of three other employees, two of whom must be from outside the respondent's program, and two students selected in consultation with the A.S.I. President.
D. The charge of the committee will be to investigate, and recommend a proposed resolution to the Dean. After receiving the recommendation, the Dean shall notify both parties of the decision. In the absence of an appeal, the decision of the Dean is final. Step 3:

If either party wishes to appeal the decision of the Dean, the appeal, in writing, may be made to the Provost (academic) or appropriate Vice President (non-academic). The appeal must be made within 10 instructional days of the decision (Step 2). The Provost or Vice President will notify both parties of the appeal, review all written documentation and may investigate further or refer back to the Dean for further findings. The Provost or Vice President will then notify both parties of her/his decision.

## CSU Policies Concerning Student Discipline

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

## 41301. Expulsion, Suspension and Probation of Students

Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus-related:
(a) Cheating or plagiarism in connection with an academic program at a campus;
(b) Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus;
(c) Misrepresentation of oneself or of an organization to be an agent of a campus;
(d) Willful, material and substantial obstruction or disruption, on or off university property, of the campus educational
process, administrative process, or other campus function;
(e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse;
(f) Theft of, or non-accidental damage to, campus property; or property in the possession of, or owned by, a member of the campus community;
(g) Unauthorized entry into, unauthorized use of, or misuse of campus property;
(h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis;
(i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president;
(j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function;
(k) Abusive behavior directed toward, or hazing of, a member of the campus community;
(I) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section;
(m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section;
(n) Unauthorized recording, dissemination, and publication of academic presentations for commercial purposes. This prohibition applies to a recording made in any medium, including, but not limited to, handwritten or typewritten class notes.
(1) The term "academic presentation" means any lecture, speech, performance, exhibition, or other form of academic or aesthetic presentation, made by an instructor of record as part of an authorized course of instruction that is not fixed in a tangible medium of expression.
(2) The term "commercial purpose" means any purpose that has financial or economic gain as an objective.
(3) The term "Instructor of record" means any teacher or staff member employed to teach courses and authorize credit for the successful completion of courses.
(o) For purposes of this Article, the following terms are defined:
(1) The term "member of the campus community" is defined as meaning California State University Trustees, academic, nonacademic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function;
(2) The term "campus property" includes: (A) real or personal property in the possession of, or under the control of, the Board of Trustees of The California State University, and (B) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
(3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, sling shot, billy, sand-club, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club;
(4) The term "behavior" includes conduct and expression;
(5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
(6) The causes for discipline in this section shall, as appropriate, include computer-related crimes as provided in Section 502 of the Penal Code.
(p) This Section is not adopted pursuant to Education Code Section 89031;
(q) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date will be subject to the provisions of this Article as in effect immediately prior to such effective date.

## 41302. Disposition of Fees; Campus Emergency; Interim Suspension

The President of the campus may place on probation, suspend or expel students for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such students for the semester, quarter, or summer in which they are suspended or expelled will be refunded. If the students are readmitted before the close of the quarter, or summer session in which they are suspended, no additional tuition or fees will be required on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect emergency regulations, procedures, or measures deemed necessary or appropriate to meet the emergency, to safeguard persons and property, and to maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension will be given prompt notice of charges and the opportunity for a hearing within ten days of the imposition of interim suspension. During the period of interim suspension, the student will not, without prior written permission of the

President or designated representative, enter any campus of The California State University other than to attend the hearing. Violation of any condition of interim suspension will be grounds for expulsion.

## 41303. Conduct by Applicants for Admission

Notwithstanding any provision to the contrary, admission or readmission may be qualified or denied to any persons who, while not enrolled as students, commit acts which, were they enrolled as students, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any persons who, while students, commit acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases will be determined under procedures adopted pursuant to Section 41304.

## 41304. Student Disciplinary Procedures for The California State University

The Chancellor will prescribe, and may from time to time revise, a code of student disciplinary procedures for The California State University. Subject to other applicable law, this code will provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302 , and for qualified admissions or denial of admission under Section 41303; the authority of the campus President in such matters; conduct-related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor will report to the Board actions taken under this section.

The current University regulation on alcoholic beverages is stated in the CSULB Policies, Information and Regulations Handbook published by the Office of Student Affairs.

Additional detailed information relating to student discipline is available in the Office of Student Affairs, and from the Office of the Vice President for Student Services.

## Administrative Action

Procedures and sanctions of the Office of Judicial Affairs are under the administration of the Vice President for Student Services and are conducted pursuant to the authority provided in Section 41301 of Title 5 of the California Code of Regulations. Copies of Section 41301 of Title 5 may be found in the University Catalog and the Campus Regulations available in the Office of Judicial Affairs. Copies of Chancellor's Executive Order 628, "Student Disciplinary Procedures for the California State University" are also available upon request.

The Vice President for Student Services will report annually to the President and the Chair of the Academic Senate a summary of the charges concerning cheating and plagiarism brought before the Office of Judicial Affairs.

## Judicial Affairs

The Office of Judicial Affairs (Brotman Hall - 377) provides assistance with the interpretation and enforcement of campus regulations. Complete copies of the CSULB Policies, Information and Regulations Handbook, including a listing of infractions which may result in student disciplinary action under Title 5, Section 41301, of the California Code of Regulations, "Probation, Suspension and Expulsion of Students," are available in this office; also available are copies of Executive Order 628, "Student Disciplinary Procedures for The California State University." General assistance and aid in directing individuals to the proper procedures, departments and personnel may be obtained in this office.

Alleged violations are investigated primarily through informal office conferences with the involved students. The conferences which are held as a result of impending disciplinary action are:

1. to clarify the referral, the charges, or the circumstances involved;
2. to prevent the incidence of, or further occurrences of, violations; and
3. to educate as a preventive experience and to indicate the possible consequences as a result of committing a violation. Discussion is centered on the cause-and-effect relationship of various courses of action and, when possible, alternate paths or solutions are explored.

## Fee Establishment and Policies

## Average Support Cost Per Full-Time Equivalent Student and Sources of Funds

The total support cost per full-time equivalent student includes the expenditures for current operations, including payments made to students in the form of financial aid, and all fully reimbursed programs contained in state appropriations. The average support cost is determined by dividing the total cost by the number of full-time equivalent students (FTES). The total CSU 2005/06 final budget amounts were $\$ 2,615,120,000$ from state General Fund appropriations (not including capital outlay funding), \$1,003,659,000 from State University Fee Revenue, \$393,418 from other fee revenues, and reimbursements for a total of $\$ 4,012,095,000$. The number of projected 2005/06 full-time equivalent students (FTES) is 332,223. The number of full-time equivalent students is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The 2005/06 average support cost per full-time equivalent student based on General Fund appropriation and State University Fee revenue only is $\$ 10,884$ and when including all sources as indicated below is $\$ 12,077$. Of this amount, the average student fee support per FTE is $\$ 3,021$, which includes all fee revenue in the state higher education fund (e.g. State University Fee, nonresident tuition, application fees, miscellaneous course fees).

|  |  | Avg Cost <br> per FTE |  |
| :--- | ---: | ---: | ---: |
| $2005 / 06$ | Amount | Student | $\%$ |
| Total Support Cost | $\$ 4,012,095,000$ | $\$ 12,077$ | $100 \%$ |
| - State Appropriation | $2,615,120,000$ | 7,865 | $65 \%$ |
| - Student Fee Support ${ }^{1}$ | $1,003,659,000$ | 3,020 | $25 \%$ |
| - Other Income and | $393,418,000$ | 1,184 | $.10 \%$ |

_Reimbursements
${ }^{1}$ Student fee support represents fee revenue deposited in the State Treasury/state higher education fund. The average CSU 2005/06 academic year, resident, undergraduate student fees required to apply to, enroll in, or attend the university is $\$ 3,164$. However, the costs paid by individual students will vary depending on campus, program, and whether a student is part-time, full-time, resident, or nonresident.

## Schedule of Fees 2006-2007

Legal residents of California are not charged tuition. The following reflects applicable systemwide fees and nonresident tuition for the semester system in which CSULB operates. The following fees represent Fall 2004 and Spring 2005 semesters. (Fees are subject to change without notice.)

Students who wish to drop units AND to simultaneously or subsequently add the same number of units to accomplish this exchange may do so without financial penalty in State University Fees, provided this exchange in units meets all other signature requirements. This activity may not occur later than 14 days from the first day of instruction.

## Procedure for the Establishment or Abolishment of a Student Body Fee

The law governing the California State University provides that fees defined as mandatory, such as a student body association fee and a student body center fee, may be established. A student body association fee must be established upon a favorable vote of two-thirds of the students voting in an election held for this purpose (Education Code, Section 89300). A student body center fee may be established only after a fee referendum is held which approves by a two-thirds favorable vote the establishment of the fee (Education Code, Section 89304). The student body fee was established at CSULB by student referendum in April 7, 2000. The campus President may adjust the student body association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose (Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus President containing the signatures of 10 percent of the regularly enrolled students at the University. Once bonds are issued, authority to set and adjust student body center fees is governed by provisions of the State University Revenue Bond Act of 1947, including, but not limited to, Education Code, sections 90012, 90027, and 90068. Student body association fees support a variety
of cultural and recreational programs, childcare centers, and special student support programs.

The process to establish and adjust other campusbased mandatory fees requires consideration by the campus fee advisory committee and a student referendum. The campus President may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the campus President. The President may also request the Chancellor to establish the mandatory fee.

## Tax Credits for Higher Education

The Taxpayer Relief Act of 1997 encourages postsecondary and continuing education by providing tax benefits to students and their families. Taxpayers can claim one, or in some cases, two of these new tax credits for expenses they pay for postsecondary education for themselves and their dependent children. These tax credits can directly reduce the amount of federal income tax for returns filed.

The Hope Scholarship Credit is available on a perstudent basis for the first two years of postsecondary education. The maximum credit is $\$ 1,500$ per student. It will be offered to students or parents who pay tuition and related expenses for attendance at least half-time in a degreegranting program.

The Lifetime Learning Credit provides a tax credit to parents and/or students of up to $\$ 2,000$ of total annual educational expenses, per return.

Education expenses that are paid with tax-free grants, scholarships, are not eligible for either tax credit. Education expenses paid with loans are eligible for these tax credits. Interest paid on qualified student loans may also be deductible from taxpayer income. Interest can be taken as a deduction during the first 60 months (5 years) of repayment on student loan.

To assist you in taking advantage of these tax credits, the University will provide you with the following information:

- Form 1098T (Tuition Payments Statement) - This form must be submitted along with your federal tax return to claim these credits.
- Form W-9S (Request for Student's or Borrower's Social Security Number and Certification). This form should be completed and returned to the University, if your social security number is incorrect.
- Telephone inquiries at (562)985-4169
- Online at MyCSULB.edu
- In-person inquiries at Brotman Hall 155
- IRS Publication 970, Tax Benefits for Education www.irs.


## gov

Either your lender or loan servicer will provide interest deduction information to you. Those eligible will be provided with a 1098E form, which must be submitted along with your federal tax return to claim this deduction.
NOTE: The information described above, and the information available via mysculb or phone regarding the new tax benefits, is in general terms. Your ability to claim these tax benefits depends on your individual circumstances. We recommend that you consult a tax advisor to determine your personal eligibility.

## Office of the Chancellor

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| Vice Chancellor, Human Resources. | .Ms. Jackie McClain |
| General Counsel. | Ms. Christine Helwick |
| Associate Vice Chancellor, A |  |

401 Golden Shore
Long Beach, California, 90802-4210
(562) 951-4000

## CSU, Long Beach Administration

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Office of the President
Executive Assistant to the President ........................................................Dixie Grimmett
University Ombuds ...................................................................................................izabeth Novak
Director, Equity and Diversity ........................................................................................

Director, Sports, Athletics, and Recreation .................................................... Cindy Masner
Office of Academic Affairs


| ean, College of Natural Sciences and Mathematics ............................... Laura Kingsford |  |
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|  |  |
| Associat |  |
| Dean, Library Services $\qquad$ Roman Kochan <br> Associate Dean. Henry DuBois |  |
|  |  |
| Dean, University College and Extension Services ................................................................................................................................. ${ }^{2}$ Crorilyn ShadleAssociate Dean...... |  |
|  |  |
| Director, Programs................................................................................... Sheila thomas |  |
| Senior Director, Technology and Development ........................................ Mat Kaplan |  |
|  |  |
|  |  |

## Division of Student Services

|  |
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| Director, Budget and Human Resources ............................................Douglas Harris |
|  |
| Director, Housing and Residential Life ........................................................Stan Olin |
| Director, Student Health Services Renee Twigg Chief Physician. Michael Carbuto |
| Program Review Analyst ....................................................................Ray DeLeon |
| Associate Vice President for Student Services ............................................ Alan Nishio |
| Director, Career Development Center $\qquad$ Manuel Perez Coordinator, Cooperative Education $\qquad$ Marie Burks |
| Director, Counseling and Psychological Services ..........................Mary Ann Takemoto |
| Director, Disabled Student Services ................................................David Sanfilippo |
| Executive Director, Educational Equity Services....................................Howard Wray |
| Director, College Assistance Migrant Program ..................................Vivian Barrera |
| Director, Educational Information Services/Talent Search....... Loretta Enriquez-Najera |
| Director, Educational Opportunity Center..........................................Michele Scott |
| Director, Student Support Services / McNair Program ...........................Howard Wray |
| Director, Upward Bound ..........................................................Phillip Humphreys |
| Director, Educational Opportunity Program........................................Andy Espinoza |
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| Coordinator, President's Scholars Center ...........................................ennie Hurley |
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| Assistant Dean of Students ..............................................Jeane Relleve Caveness |
| Coordinator, Center for Scholarship Information ........................ Wayne Stickney-Smith |
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The California State University

Long Beach, California 90802-4210

## Emeriti Faculty

(Number in parentheses indicates year of appointment)

Ingrid Aall (1969) Professor Emerita, 2002
Art
Herbert L. Aarons (1965) Associate Professor Emeritus, 1991
Sociology
Paul Abels (1986) Professor Emeritus, 2000
Social Work
Rifaat Ali Abou-El-Haj (1964) Professor Emeritus, 1995
History
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Mathematics
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Leonard O. Albright (1984) Professor Emeritus, 2000
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Civil Engineering
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Civil Engineering
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Recreation and Leisure Studies
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Roy C. Anderson (1965) Professor Emeritus, 1996 Economics
Shane Andre (1967) Professor Emeritus, 1994 Philosophy
Carl R. Anselmo (1964) Professor Emeritus, 1994
Biological Sciences
Blair C. Archer (1950) Professor Emeritus, 1983 Art

Alfonso L. Archuleta (1965) Associate Professor
Emeritus, 1983
Spanish/Portuguese
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William D. Ash (1957) Professor Emeritus, 1990
Marketing
Charles W. Austin (1966) Professor Emeritus, 1994 Mathematics
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Mathematics

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Theatre Arts
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Chemistry and Biochemistry
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Radio Television and Film
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Philip C. Baker (1969) Associate Professor Emeritus, 2003
Biological Sciences
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R. Conrad Barrett (1988) Professor Emeritus, 2005

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Anthropology
Anthony Battaglia (1974) Professor Emeritus, 2003
Religious Studies
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College of Natural Sciences and Mathematics, Chemistry and Biochemistry
Marion S. Beaumont (1967) Professor Emerita, 1996 Economics

Louis L. Beck (1970) Professor Emeritus, 1989
Teacher Education
Edwin N. Becker (1955) Professor Emeritus, 1983 Chemistry
Harold K. Becker (1963) Professor Emeritus, 2000
Criminal Justice
Howard B. Beckwith (1969) Professor Emeritus, 2000
Mathematics
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Finance
Robert H. Berdan (1985) Professor Emeritus, 2003
Educational Psychology, Administration and Counseling/English
Marilyn J. Bergin (1971) Senior Assistant Librarian
Emertia, 1997
Stephen E. Berk (1970) Professor Emeritus, 2004
History
Stewart Berkshire (1974) Associate Professor Emeritus, 1988 Accountancy
Michael E. Bernard (1995) Professor Emeritus, 2005 Educational Psychology, Administration and Counseling
Robert M. Bersi (1987) Professor Emeritus, 2004
Public Policy and Administration

David A. Bernstein (1967) Professor Emeritus, 1999 History
Arnold J. Berry (1973) Professor Emeritus, 1992
Chemistry and Biochemistry
George V. Betar (1963) Professor Emeritus, 1981 English
Mark C. Biedebach (1967) Professor Emeritus, 1996
Biological Sciences
Virginia L. Binder (1967) Professor Emerita 2004 Psychology
Albert G. Black (1962) Associate Professor Emeritus, 1988 English
Janet E. Black (1990) Professor Emerita, 1998
Social Work
Black, Paul V. (1969) Professor Emeritus, 2005
History
Stuart E. Black (1962) Associate Professor Emeritus, 1991
Computer Engineering and Computer Science
Enid V. Blaylock (1966) Professor Emeritus, 1983
Educational Psychology and Administration
Stephen K. Blumberg (1975) Professor Emeritus, 1998
Public Policy and Administration
William D. Bonis (1963) Professor Emeritus, 1991
Philosophy
David C. Borders (1962) Professor Emeritus, 1990 Art
Warren J. Boring (1956) Professor Emeritus, 1981 Physical Education
Edward J. Borowiec (1969) Professor Emeritus, 2000 English
Archie Boston (1977) Professor Emeritus, 2005 Art
James A. Bourret (1968) Professor Emeritus, 1992
Biological Sciences
Donna L. Boutelle (1967) Professor Emerita, 1994
History
Robert Brasher (1956) Senior Assistant Librarian
Emeritus, 1986
J. Wesley Bratton (1950) Professor Emeritus, 1969

Education
Alice M. Brekke (1970) Professor Emerita, 1991 English
Nancy E. Briggs (1970) Professor Emerita, 2004
Communication Studies
Alexander L. Britton (1965) Professor Emeritus, 1980
Educational Psychology
Helen H. Britton (1981) Librarian Emerita, 1991
Charles B. Brooks (1957) Professor Emeritus, 1983 English
Robert J. Brophy (1968) Professor Emeritus, 1993
English
Lee M. Brown (1998) Professor Emeritus, 2001
Journalism
Lester B. Brown (1989) Professor Emeritus, 2004 Social Work
Ruth M. Bryan (1962) Assistant Fine Arts Librarian Emerita, 1977
Steven M. Buck (1961) Professor Emeritus, 1990
Speech Communication
William E. Buckner (1970) Professor Emeritus, 1990
Home Economics and Gerontology
R. Burdett Burk (1954) Professor Emeritus, 1975

Elementary Education
Howard V. Burman (1988) Professor Emeritus, 2004 Theatre Arts
Roland E. Bush (1969) Professor Emeritus, 2005
Comparative World Literature and Classics
Jerry D. Byrd (1982) Lecturer Emeritus, 1992
Recreation and Leisure Studies
Guy H. Cain, Jr. (1960) Associate Professor Emeritus, 1980
Electrical Engineering
Daniel A. Campbell (1962) Professor Emeritus, 1990
Physical Education
Janet Campbell (1965) Senior Assistant Librarian, Emerita, 1998
Herbert L. Camburn (1960) Professor Emeritus, 1996
Theatre Arts
Filemon C. Campo-Flores (1972) Professor Emeritus, 1996
Management/Human Resources Management
Harold L. Cannon (1968) Professor Emeritus, 2002
Romance, German, Russian Languages and Literatures
Richard E. Cantey (1972) Psychologist Emeritus, 2003
Counseling and Psychological Services
Joel W. Carissimo (1969) Professor Emeritus, 2004
Computer Engineering and Computer Science
David Carlberg (1966) Professor Emeritus, 1999
Biological Sciences
Earl R. Carlson (1961) Professor Emeritus, 1990
Psychology
Ashley B. Carr (1984) Professor Emerita, 2002
Theatre Arts
Jean Marie Casey (1987) Professor Emerita, 2003
Teacher Education
Robert W. Cash (1970) Professor Emeritus, 1995
Educational Psychology and Administration
Ottis L. Castleberry (1956) Professor Emeritus, 1983
Speech Communication
Augustus Cerillo Jr. (1967) Professor Emeritus, 2000
History
Kwan M. Chan (1969) Professor Emeritus, 1998
Geological Sciences
Chase, Michael D. (1983) Professor Emeritus, 2005
Accountancy
Sudershan Chawla (1962) Professor Emeritus, 1997
Political Science
Chunduri V. Chelapati (1965) Professor Emeritus, 1996
Civil Engineering
Richard H. Chow (1958) Professor Emeritus, 1986
Physics and Astronomy
David C. Church (1968) Associate Professor Emeritus, 1986 Industrial Education
Cheryl Clark (1969) Associate Professor Emerita, 2000 Philosophy
Patricia J. Clark (1990) Professor Emerita, 2002
Art
Marguerite A. Clifton (1978) Professor Emerita, 1987
Physical Education
Robert B. Clyde (1967) Counselor Emeritus, 1978
Joan Cobin (1973) Professor Emerita, 1988
Nursing
James E. Cockrum (1955) Professor Emeritus, 1978
Instructional Media

Floyd A. Cohen (1965) Professor Emeritus, 1992 Mathematics
Ira S. Cohen (1959) Professor Emeritus, 1983
Political Science
Charles L. Cole (1967) Professor Emeritus, 1996 Economics
Charles T. Collins (1968) Professor Emeritus, 2001 Biological Sciences
Keith R. Colman (1970) Professor Emeritus, 2004 Psychology
James L. Comer (1971) Professor Emeritus, 1981 Physical Education
Michael E. Connor (1971) Professor Emeritus, 2004
Psychology
Jean L. Conroy (1961) Associate Professor Emerita, 1994
Mathematics
Gene R. Cooper (1969) Professor Emeritus, 2000 Art
August E. Coppola (1969) Professor Emeritus, 2002
Comparative Literature and Classics
Peter A. Cortese (1973) Associate Dean, Professor Emeritus, 1991
School of Applied Arts and Sciences, Health Science
Samuel G. Councilman (1968) Professor Emeritus, 2004 Mathematics and Statistics
Peter A. Cowan (1981) Professor Emeritus, 2004
Civil Engineering and Construction Engineering Management
Duane C. Craven (1967) Associate Professor Emeritus, 1996
Communicative Disorders
Walter B. Crawford (1963) Professor Emeritus, 1985 English
Lyle R. Creamer (1962) Professor Emeritus, 1992 Psychology
Clyde A. Crego (1983) Director Emeritus, 2005
Counseling and Psychological Services
Robert D. Crossan (1955) Professor Emeritus, 1985
Educational Psychology and Administration
Simeon J. Crowther (1968) Professor Emeritus, 2003
Economics
Wendy A. Culotta (1973) Librarian Emerita, 2004
Larry G. Curtis (1969) Professor Emeritus, 1994 Music
Sandra J. Cynar (1986) Professor Emerita, 2005
Computer Engineering and Computer Science
Murray D. Dailey (1966) Professor Emeritus, 1992
Biological Sciences
Donald L. Dame (1965) Professor Emeritus, 1992 Art
Richard Danay (1985) Professor Emeritus, 2005
American Indian Studies
Barry M. Dank (1968) Professor Emeritus, 2000
Sociology
Radhe Das (1982) Professor Emeritus, 2003
Electrical Engineering
James E. Day (1955) Professor Emeritus, 1983
English
C. Thomas Dean (1952) Dean, Professor Emeritus, 1980 School of Applied Arts and Sciences, Industrial Education
Dorothy Deatherage (1955) Professor Emerita, 1990
Physical Education
Kee K. DeBoer (1977) Librarian Emeritus, 1992

Molly Debysingh (1972) Professor Emerita, 1997 Geography
Sigrid G. Deeds (1988) Professor Emerita, 1994
Health Science and Gerontology
Doris C. DeHardt (1961) Professor Emerita, 1988 Psychology
John de Heras (1967) Professor Emeritus, 1997 Art
Beverly DeLong-Tonelli (1966) Professor Emerita, 1993
Romance, German, Russian Languages and Literature
Robert L. Delorme (1966) Professor Emeritus, 1994 Political Science
Demirdjian, Zohrab (1979) Professor Emeritus, 2005 Marketing
George D. Demos (1962) Professor Emeritus, 1983
Educational Psychology
Simon DeSoto (1969) Professor Emeritus, 2002
Mechanical and Aerospace Engineering
Robert J. DeVoe (1968) Associate Professor Emeritus, 1992
Management/Human Resources Management
Jerald A. Devore (1969) Professor Emeritus, 2000
Chemistry and Biochemistry
Harold R. Dilbeck (1969) Professor Emeritus, 1991
Finance, Real Estate and Law
Orval L. Dillingham (1955) Professor Emeritus, 1982
Art
Grace E. Dinerstein (1967) Professor Emerita, 1981 Home Economics
Keith A. Dixon (1958) Professor Emeritus, 1992
Anthropology
Marjorie B. Dole (1959) Counselor Emerita, 1973
William R. Doud (1971) Professor Emeritus, 1989
Information Systems
Stacy E. Dukes (1964) Associate Professor Emerita, 1988
Design
Eldon J. Dvorak (1961) Professor Emeritus, 1991
Economics
Betty V. Edmondson (1964) Professor Emerita, 1999
Kinesiology and Physical Education
Robert F. Eggers (1964) Professor Emeritus, 1994
Theatre Arts
Albert L. Ehrreich (1957) Professor Emeritus, 1988 Geological Sciences
Robert H. Eisenman (1973) Professor Emeritus, 2002
Religious Studies
Lowell J. Eliason (1965) Professor Emeritus, 2002
Physics and Astronomy
Timothy D. Emmons (1980) Psychologist Emerirtus, 2003
Counseling and Psychological Services
Ali Eshett (1966) Professor Emeritus, 1998
Civil Engineering
Edward N. Evans (1970) Professor Emeritus, 2004
Computer Engineering and Computer Science
Harry D. Eylar (1963) Associate Professor Emeritus, 1999
Mathematics
Stuart Farber (1960) Assistant Dean of Students and Professor
Emeritus, 2003
Student Services
Michael J. Farrell (1969) Professor Emeritus, 2002
Economics
Frank J. Fata (1986) Associate Dean Emeritus and Professor Emeritus, 2004
College of Liberal Arts/Comparative World Literature and Classics

Milton J. Fatt (1963) Professor Emeritus, 1997
Mathematics
Mamdouh M. Fayek (1989) Professor Emeritus, 2005 Design
Armando T. Ferreira (1957) Professor Emeritus, 1995 Art
Josephine B. Fiebiger (1966) Professor Emerita, 1983
Psychology
David M. Fine (1968) Professor Emeritus, 1998 English
Robert G. Finney (1977) Professor Emeritus, 2000 Film and Electronic Arts
Patricia Finot (1977) Professor Emerita, 1999 Dance
William E. Fisher (1955) Professor Emeritus, 1973
Secondary Education
Gerald Ford (1969) Associate Professor Emeritus, 1994
Management/Human Resources Management
Dorothy L. Fornia (1965) Professor Emerita, 1992
Physical Education and Gerontology
L. Sheila Foster (1967) Professor Emerita, 2001

Computer Engineering and Computer Science
Barbara Franklin (1967) Professor Emerita, 2000
Kinesiology and Physical Education
John E. Fredrickson (1955) Professor Emeritus, 1983
Physics and Astronomy
Elliot Fried (1970) Emeritus, 2004
English
Paul J. Fritts (1965) Professor Emeritus, 1990
Geological Sciences
Robert K. Froyd (1958) Associate Professor Emeritus, 1980 Mathematics
Charlotte D. Furth (1966) Professor Emerita, 1990 History
Alice A. Gabrielson (1961) Senior Assistant Librarian Emerita, 1987
Charles P. Galt (1973) Professor Emeritus, 2004
Biological Sciences
John J. Garhammer (1985) Professor Emeritus, 2005
Kinesiology
Daniel E. Garvey (1976) Professor Emeritus, 1998 Journalism
Dixon L. Gayer (1959) Professor Emeritus, 1980 Journalism
George W. Genevro (1957) Professor Emeritus, 1982 Industrial Education
Barbara C. George (1961) Professor Emerita, 2001
Finance, Real Estate and Law
Simon George (1961) Professor Emeritus, 1998
Physics and Astronomy
Albert C. Germann (1957) Professor Emeritus, 1983
Criminal Justice
John E. Gessford (1990) Professor Emeritus, 1997 Information Systems
Norma B. Gibbs (1966) Associate Professor Emerita, 1992 Educational Psychology and Administration
Nadyne C. Gibson (1955) Professor Emerita, 1977
Music
Paul R. Gilon (1969) Professor Emeritus, 1992
Information Systems
C. Barclay Gilpin (1966) Professor Emeritus, 1998

Mechanical and Aerospace Engineering

Jeanette W. Gilsdorf (1989) Professor Emerita, 2004 Information Systems
Alan J. Glasser (1959) Professor Emeritus, 1980
Educational Psychology
Constance W. Glenn (1973) Professor Emerita, 2004
Art
Constantine Glezakos (1968) Professor Emeritus, 2003
Economics
Kathryn E. Goddard (1969) Director Emerirtus, 2004
Center for Collaboration in Education
R. Michael Godfrey (1989) Professor Emeritus, 2005

Information Systems
Yvonne V. Gold (1972) Professor Emerita, 1998
Teacher Education
Dorothy M. Goldish (1958) Professor Emerita, 2003
Chemistry and Biochemistry
John Gonsalves, Jr. (1969) Professor Emeritus, 2003
Kinesiology and Physical Education
Leo Goodman-Malamuth (1956) Professor Emeritus, 1993
Speech Communication
Edward A. Gosselin (1969) Professor Emeritus, 2003 History
Franklin E. Gossette (1987) Professor Emeritus, 2005 Geography
Jean M. Granger (1972) Professor Emerita, 2002
Social Work
Beatrice M. Greer (1968) Assistant Professor Emerita, 1985
Art
James R. Gregory (1970) Professor Emeritus, 1997
Anthropology
Kenneth M. Gregory (1973) Professor Emeritus, 2001
Biological Sciences
Betty Rose Griffith (1968) Professor Emerita, 1988
Physical Education
Calvin D. Gross (1962) Professor Emeritus, 1992
Art
Daniel Guerriere (1969) Professor Emeritus, 2002
Philosophy
Nezih Gunal (1989) Assistant Professor Emeritus, 2005
Civil Engineering and Construction Engineering Management
Emma Jean Gunderson (1971) Professor Emerita, 1997
Information Systems
Albert F. Gunns (1967) Professor Emeritus, 2001
History
Serafina Q. Gunter (1964) Professor Emerita, 1980
Accounting
Elaine J. Haglund (1972) Professor Emerita, 2004
Educational Psychology, Administration and Counseling
Kathleen J. Halberg (1988) Associate Professor Emerita, 2001 Recreation and Leisure Studies
Thomas E. Hall (1981) Professor Emeritus, 2005
Art
Michael J. Halliwell (1968) Professor Emeritus, 2004
Sociology
Charles D. Hamburger (1965) Professor Emeritus, 1996
Management/Human Resources Management
Arlene D. Hamilton (1966) Associate Professor Emerita, 1983
Home Economics
Raphael M. Hanson (1961) Professor Emeritus, 1986 Psychology
Forrest E. Harding (1971) Professor Emeritus, 2000
Marketing

Leroy C. Hardy (1953) Professor Emeritus, 1986 Political Science
Charles V. Harlow (1968) Professor Emeritus, 1994 Finance, Real Estate and Law
Marsha S. Harman (1966) Professor Emerita, 2003 Sociology
Robert C. Harman (1969) Professor Emeritus, 2000 Anthropology
Alice M. Harris (1969) Professor Emerita, 1998
Educational Psychology, Administration and Counseling
Edwin R. Harris (1959) Professor Emeritus, 1997
Chemistry and Biochemistry
Joellen T. Hartley (1981) Professor Emerita, 2003 Psychology
Michael Hassul (1981) Professor Emeritus, 2004
Computer Engineering and Computer Science
Luster E. Hauth (1964) Professor Emeritus, 1992 Speech Communication
Robert E. Hayes (1961) Professor Emeritus, 2001 Political Science

John L. Healy (1956) Associate Professor Emeritus, 1983
Speech Communication
Jack Heeger (1990) Associate Professor Emeritus, 1992 Journalism
Stephen S. Heineman (1969) Professor Emeritus, 1992
Engineering Technology
Stanford M. Helm (1954) Professor Emeritus, 1977
Music
Don Hennessee (1952) Assistant Humanities Librarian Emeritus, 1976
John A. Hermann (1955) Professor Emeritus, 1982 English
John F. Herrmann (1980) Professor Emeritus, 2001
Management/Human Resources Management
Truman O. Hickerson, Jr. (1965) Professor Emeritus, 1992 Accountancy
John E. Higgins (1964) Professor Emeritus, 1980 History
Lloyd R. Hile (1968) Professor Emeritus, 2004
Chemical Engineering
Robert A. Hipkiss (1966) Professor Emeritus, 1997
English
Howard G. Hitchcock (1958) Professor Emeritus, 1990 Art
Ju-Shey Ho (1970) Professor Emeritus, 1999
Biological Sciences
Joan C. Hoff-Templeton (1957) Professor Emerita, 1994
Design and Gerontology
Robert T. Holmes (1961) Professor Emeritus, 1986 Marketing
Stephen Horn (1970) President Emeritus, 1988
Trustee Professor Political Science
Adelore L. Houde (1965) Professor Emeritus, 1985 Electrical Engineering
Everett H. Hrubant (1957) Professor Emeritus, 1988 Biological Sciences
Chi-yu Yang Hu (1963) Professor Emerita, 2005
Physics and Astronomy
Harold G. Hubbard (1970) Professor Emeritus, 1999 Sociology
Carol A. Hunter (1969) Professor Emerita, 1983
Educational Psychology and Administration

Harold R. Hunter (1987) Professor Emeritus, 2004 Health Care Administration
Ralph B. Hupka (1969) Professor Emeritus, 2005
Psychology
Lloyd T. Inui (1965) Professor Emeritus, 1992
Asian and Asian American Studies
Cathern M. Irwin (1961) Associate Professor Emerita, 1983
Health Science
Hazel O. Jackson (1994) Professor Emerita, 2004
Family and Consumer Sciences
Mary Jacob (1980) Professor Emerita, 2004
Family and Consumer Sciences
Willard D. James (1967) Professor Emeritus, 1987
Mathematics and Computer Science
Emanuel Jarasunas (1976) Professor Emeritus, 2002
Engineering Technology
Hilton F. Jarrett (1966) Professor Emeritus, 1983
Psychology
Kenneth D. Jenkins (1970) Professor Emeritus, 1997
Biological Sciences
Marilyn Jensen (1965) Associate Vice President and Dean of University Academic Programs and Professor Emerita, 2000 Recreation and Leisure Studies

Owen O. Jenson (1966) Professor Emeritus, 1994
Speech Communication
Patricia E. Jersin (1965) Professor Emerita, 1991
Teacher Education
Alan W. Johnson (1968) Associate Director Emeritus, 1980 International Education Center
Gretchen A. Johnson (1969) Librarian Emerita, 2002
University Library and Learning Resources
Leayn Johnson (1981) Professor Emerita, 2005
Nursing
Richard J. Johnson (1959) Professor Emeritus, 1992
Instructional Systems Technology
William M. Johnson (1965) Associate Professor Emeritus, 2004 Philosophy
Ira Jones (1969) Professor Emeritus, 1999
Biological Sciences
Irene Jones (1990) Professor Emerita, 2004
Romance, German, Russian Language and Literatures
Kristi S. Jones (1968) Professor Emerita, 2001
Art
Rita H. Jones (1964) Professor Emerita, 1996
Teacher Education
Thimios J. Jordanides (1964) Professor Emeritus, 2004
Electrical Engineering
John R. Jung (1968) Professor Emeritus, 2002
Psychology
George V. Kacewicz (1966) Professor Emeritus, 1986
Political Science
Stanley Kahan (1961) Professor Emeritus, 1994
Theatre Arts
Gene E. Kalbus (1957) Professor Emeritus, 1994
Chemistry and Biochemistry
Michael J. Kammermeyer (1968) Professor Emeritus, 2003
Design
Thomas J. Kampwirth (1971) Professor Emeritus, 1999
Educational Psychology, Administration and Counseling
Robert W. Kapche (1966) Associate Professor Emeritus, 2003
Psychology

Edward Karabenick (1959) Professor Emeritus, 1998 Geography
Elizabeth S. Kaufman (1963) Professor Emerita, 1989 Nursing
Hamid R. Kavianian (1984) Professor Emeritus, 2005 Chemical Engineering
Elizabeth Kazan (1955) Professor Emerita, 1983 Biological Sciences
Michael L. Kearney (1960) Professor Emeritus, 1996
Finance, Real Estate and Law
Maxine K. Keenan (1971) Associate Professor Emerita, 1981
Home Economics
Mary F. Kefgen (1958) Professor Emerita, 1987
Home Economics
Kathleen L. Keller (1983) Professor Emerita, 2000 Nursing
Wayne F. Kelly (1976) Professor Emeritus, 2000 Journalism
L. Boyd Kendall (1969) Professor Emeritus, 1979

Electrical Engineering
Harvey L. Kendall (1966) Professor Emeritus, 1990
German, Russian and Classics
Celeste K. Kennedy (1970) Associate Professor Emerita, 1992 Dance
Rowland E. Kerr (1968) Director Emerirtus, 1995
Student Life and Development
Gretha Kershaw (1966) Professor Emerita, 1983
Anthropology
Eugene E. Kessler (1969) Associate Professor Emeritus, 1986 French-Italian
Earl C. Kidd (1952) Professor Emeritus, 1973
Men's Physical Education
Juhee Kim (1966) Professor Emeritus, 1997
Biological Sciences
John C. Kimura (1967) Professor Emeritus, 1991
Geography
Ronald L. King (1964) Professor Emeritus, 1991
Information Systems
James J. Kirkpatrick (1967) Professor Emeritus, 1986
Management/Human Resources Management
Byron C. Kluss (1959) Professor Emeritus, 1991
Biological Sciences and Gerontology
Stephen R. Knafel (1962) Professor Emeritus, 1999 English
I. Aileen Poole Koehler (1959) Professor Emerita, 1974

Educational Psychology
Margaret L. Koehler (1970) Professor Emerita, 1988
Nursing
Charles J. Kokaska (1969) Professor Emeritus, 1999
Educational Psychology, Administration and Counseling
Albert H. Koppenhaver (1969) Professor Emeritus, 1994 Teacher Education
Lloyd Kramer (1973) Associate Director Library Emeritus, 1986
Joseph H. Krause (1955) Professor Emeritus, 1996
Art
Henry J. Krauser (1970) Associate Professor Emeritus, 1992
Engineering Technology
Ronald A. Kroman (1959) Professor Emeritus, 1990
Biological Sciences
Stephen Kulik (1959) Professor Emeritus, 1972
Mathematics

Robert J. Kunst (1969) Professor Emeritus, 2001 Art
Chester R. Kyle (1959) Professor Emeritus, 1984
Mechanical Engineering
Hans Lampl (1965) Professor Emeritus, 1983
Music
H. John Lane (1963) Professor Emeritus, 1999

Computer Engineering and Computer Science
Mary J. Lass (1966) Professor Emerita, 1994 Teacher Education
Ann Lathrop (1989) Professor Emerita, 1999
Educational Psychology, Administration and Counseling
Donald P. Lauda (1983) Professor Emeritus, 2002
Occupational Studies
Irvin T. Lathrop (1959) Professor Emeritus, 1988 Industrial Education
Arthur C. Laufer (1957) Professor Emeritus, 1983
Management/Human Resources Management
Alvin H. Lawson (1962) Professor Emeritus, 1990 English
Joseph A. Lea (1968) Associate Professor Emeritus, 1997
College of Education
Dorothy Leach (1968) Counselor Emerita, 1987
Mary Ellen Leach (1968) Associate Professor Emerita, 2002
Kinesiology and Physical Education
Isaiah C. Lee (1972) Professor Emeritus, 1997
Social Work
Gordon Leis (1966) Professor Emeritus, 1988
Sociology
Mary Jane Leland (1959) Professor Emerita, 1986
Art
John M. Lenoir (1974) Professor Emeritus, 1984
Chemical Engineering
Lawrence S. Lerner (1969) Professor Emeritus, 1999
Physics and Astronomy
Rodney C. Lewis (1958) Professor Emeritus, 1973
Electrical Engineering
San Pao Li (1976) Professor Emeritus, 2001
Asian and Asian American Studies
Dorothy Libby (1967) Associate Professor Emerita, 1988
Anthropology
Neil Lieberman (1975) Professor Emeritus, 1998
Art
Van T. Lieu (1967) Professor Emeritus, 1996
Chemistry and Biochemistry
Paulino M. Lim, Jr. (1967) Professor Emeritus, 2000
English
John R. Lincoln (1968) Professor Emeritus, 1994
Art
James I. Linden (1968) Professor Emeritus, 1998
Psychology
Rhoda C. Lindner (1969) Professor Emerita, 1998
Psychology
John R. Lindquist (1966) Career Counselor Emeritus, 1987
Alexander Lipski (1958) Professor Emeritus, 1984
History, Religious Studies
Gerald I. Locklin (1965) Professor Emeritus, 2003 English
Donna Longstreet (1968) Senior Assistant Librarian
Emerita, 1991
Jose Lopez (1970) Professor Emeritus, 2001
Chicano Latino Studies

Eileen E. Lothamer (1966) Professor Emerita, 1986 English
Alan S. Lowenthal (1969) Professor Emeritus, 2004 Psychology
Kau Un Lu (1968) Professor Emeritus, 2000
Mathematics
Keung P. Luke (1966) Professor Emeritus, 1998
Physics and Astronomy
Walter J. Lyche (1957) Associate Professor Emeritus, 1974 Mathematics
M. Joan Lyon (1958) Professor Emerita, 1992

Physical Education
B. David Macon (1957) Associate Professor Emeritus, 1986 Industrial Education
Dan L. Madison (1983) Associate Professor Emeritus, 2000 Management/Human Resources Management
Ernest R. Mijares (1965) Professor Emeritus, 2003
Mechanical and Aerospace Engineering
Carl Maltz (1986) Professor Emeritus, 2002
Computer Engineering and Computer Science
Whitney S. Mandel (1989) Professor Emerita, 2003
Journalism
Shirley Mangini (1987) Professor Emerita, 2004
Romance, German, Russian Languages and Literatures
Jerome H. Manheim (1971) Professor Emeritus, 1988
Mathematics and Computer Science
Greayer Mansfield-Jones (1962) Professor Emeritus, 1992
Biological Sciences
Richard F. Marrs (1968) Associate Professor Emeritus, 2000 Teacher Education

Alain-Gerard Marsot (1968) Professor Emeritus, 1998
Political Science
Howard S. Martin (1965) Professor Emeritus, 1991
Radio, Television and Film
John M. Martin (1955) Professor Emeritus, 1982 Art

Frederic J. Masback (1964) Professor Emeritus, 1989 English
Phyllis F. Maslow (1975 Professor Emerita, 1990
Educational Psychology and Administration
Charles F. Mason (1964) Professor Emeritus, 1979 Psychology
George E. Massey (1959) Professor Emeritus, 1983
Philosophy
Joseph A. Mastropaolo (1968) Professor Emeritus, 1994
Physical Education
Donald L. Maurer (1981) Professor Emeritus, 2000
Biological Sciences
Robert C. Maxson (1994) President Emeritus, 2005
CSU, Long Beach
Professor Emeritus, 2005, Educational Psychology, Administration and Counseling

Sylvia P. Maxson (1995) Associate Professor Emerita, 2005
English/Liberal Studies
Kenneth E. Maxwell (1963) Professor Emeritus, 1973
Biological Sciences
Charles E. May (1967) Professor Emeritus, 2001 English
M. Adrienne Mayberry (1975) Professor Emerita, 1998 Nursing
Joan E. McCauley (1969) Librarian Emerita, 2003

Wendell H. McCulloch (1974) Professor Emeritus, 1997 Finance, Real Estate and Law

Gloria McCullough May (1969) Professor Emerita, 1992 English
Saundra McMillan (1972) Professor Emerita, 2001
Film and Electronic Arts
Darwin L. Mayfield (1956) Professor Emeritus, 1990 Chemistry
R. Clyde McCone (1961) Professor Emeritus, 1980 Anthropology
John J. McConnell (1953) Professor Emeritus, 1986 Physical Education
Thomas A. McCullough (1969) Professor Emeritus, 2001 Mathematics

John M. McFaul (1963) Professor Emeritus, 1988 History
William H. McGowan (1967) Professor Emeritus, 1996 Philosophy
Edward B. McLeod, Jr. (1965) Professor Emeritus, 1986
Mathematics and Computer Science
Flora Meisenheimer (1973) Associate Professor Emerita, 1991 Nursing
Peter J. Mendez (1976) Associate Professor Emeritus, 2001 Art
Maxine O. Merlino (1952) Professor Emerita, 1975
Art
Larry L. Meyer (1978) Professor Emeritus, 1992
Journalism
Alan C. Miller (1974) Professor Emeritus, 2005
Biological Sciences
Edward Miller (1968) Professor Emeritus, 1998
Mechanical Engineering
Harold T. Miller (1958) Associate Professor Emeritus, 1971
Civil Engineering
John Minar (1968) Professor Emeritus, 1989
Recreation and Leisure Studies
Leslie B. Mittleman (1957) Professor Emeritus, 1998 English
Akira Miyazaki (1969) Associate Professor Emerita, 2003
Asian and Asian American Studies
Monahan, Genevieve (1998) Associate Professor Emeritus, 2005
Nursing
Tom D. Morgan (1967) Professor Emeritus, 1995
Physical Education
Walter H. Moore Jr. (1979) Professor Emeritus, 2004
Communicative Disorders
Frank S. Morris (1969) Associate Professor Emeritus, 1992
Teacher Education
Raymond J. Morris (1969) Professor Emeritus, 2003
Physical Therapy
M. Gamal Mostafa (1968) Professor Emeritus, 1987

Civil Engineering
Dieter Muller-Stach (1968) Professor Emeritus, 1998
Art
Mullins, Ruth G. (1973) Professor Emerita, 2005
Nursing
Jack H. Munsee (1968) Professor Emeritus, 1998
Physics and Astronomy
Everett E. Murdock (1988) Professor Emeritus, 1998
Educational Psychology, Administration and Counseling
Julien Musafia (1959) Professor Emeritus, 1983
Music

Charles L. Myers (1956) Professor Emeritus, 1986 Teacher Education
Dale E. Nelson (1956) Professor Emeritus, 1986 Information Systems
Doris Nelson (1967) Professor Emerita, 1987
English
John A. Nelson, Jr. (1971) Dean, Professor Emeritus, 1983
School of Education, Educational Psychology and Administration
Helen P. Newcastle (1969) Professor Emerita, 2000
Teacher Education
Loc T. Nguyen (1989) Associate Professor Emeritus, 2001 Accountancy
Robert L. Nicholson (1957) Professor Emeritus, 1983 Industrial Education

Jerome A. Nielsen (1968) Associate Professor Emeritus, 1988 Physical Therapy
Vicente N. Noble (1974) Professor Emeritus, 2004
Educational Psychology, Administration and Counseling
Frank Noffke (1964) Counselor Emeritus, 1981
Susan G. Nummedal (1972) Professor Emerita, 2002
Psychology
John E. Nygaard (1963) Professor Emeritus, 1990
Psychology
Leonard Olguin (1974) Professor Emeritus, 1996
Teacher Education
Hazel A. Oliver (1960) Senior Assistant Librarian Emerita, 1980
R. Warner Olsen, Jr. (1960) Senior Assistant Librarian

Emeritus, 1992
Douglas H. Orgill (1951) Professor Emeritus, 1983
English
Russel E. Orpet (1959) Professor Emeritus, 1992
Educational Psychology and Administration
Elizabeth T. Ortiz (1983) Professor Emerita, 2001
Social Work
Cynthia A. Osborne (1975) Professor Emerita, 2004
Art
Richard A. Outwater (1969) Professor Emeritus, 2003
Geography
Carolyn M. Owen (1970) Professor Emerita, 1986
Educational Psychology and Administration
Frank F. Paal (1968) Professor Emeritus, 1992
Electrical Engineering
Feliksas Palubinskas (1965) Professor Emeritus, 1988
Marketing
Nick D. Panagiotacopulos (1980) Professor Emeritus, 2004
Electrical Engineering
Douglas A. Parker (1968) Professor Emeritus, 2005
Sociology
Anna M. Parmley (1969) Associate Professor Emerita, 1988
Biological Sciences
David E. Pastrana (1973) Professor Emeritus, 2004
Finance and Law
Carl Payne (1968) Professor Emeritus, 1990
Information Systems
David R. Peck (1967) Professor Emeritus, 1999
English
Fernando Peñalosa (1970) Professor Emeritus, 1990
Sociology
Wanda L. Pentecost (1963) Professor Emerita, 1987
Nursing and Gerontology

Leland M. Perry (1956) Professor Emeritus, 1990
Teacher Education
Robert A. Pestolesi (1955) Professor Emeritus, 1986
Physical Education
Paul G. Petersen (1962) Professor Emeritus, 1985
Psychology
Audrey Buckland Peterson (1966) Professor Emerita, 1983
English
Kenneth L. Pickard (1971) Associate Professor Emeritus, 2002
Information Systems
Alvin A. Pine (1962) Professor Emeritus, 1996
Art
Ferinand J. Plourde, Jr. (1966) Associate Professor
Emeritus, 1994
English
Henry N. Po (1968) Professor Emeritus, 2003
Chemistry and Biochemistry
Keith Ian Polakoff (1969) Associate Vice President for
Academic Affairs and Professor Emeritus, 2004
History
Dora Beale Polk (1968) Professor Emerita, 1987 English
Charles W. Pomeroy (1970) Associate Professor
Emeritus, 2000
English
Frank M. Pooler (1959) Professor Emeritus, 1988
Music
Donald F. Popham (1956) Professor Emeritus, 1986
Teacher Education
Richard E. Porter (1970) Professor Emeritus, 1996
Speech Communication
Richard C. Potter (1967) Dean, Professor Emeritus, 1983
School of Engineering, Mechanical Engineering
J. Richard Powell (1954) Professor Emeritus, 1984

Economics
James G. Powell (1961) Professor Emeritus, 1991
Speech Communication
Melchior D. Powell (1973) Professor Emeritus, 1992
Public Policy and Administration
Yoko S. Pusavat (1972) Professor Emerita, 2002
Asian and Asian American Studies
Charles E. Quest (1966) Professor Emeritus, 2001
Philosophy
Elisabeth M. Quillen (1964) Professor Emerita, 1985
French-Italian
Michael T. Quinn (1970) Professor Emeritus, 1994
Management/Human Resources Management
Louis E. Quinones (1965) Associate Professor Emeritus, 1992 Technology Education
Bonnie J. Rader (1970) Professor Emerita, 1990
Home Economics
Amen Rahh (1970) Associate Professor Emeritus, 2004
Black Studies
Walter J. Raine (1968) Professor Emeritus, 1983
Psychology
Dennis G. Rainey (1956) Professor Emeritus, 1988
Biological Sciences
J. David Ramirez (1993) Professor Emeritus, 2004

Educational Psychology, Administration and Counseling/Teacher Education

Robert W. Ramsey (1957) Professor Emeritus, 1990 Art
Clare G. Rayner (1957) Professor Emerita, 1986 Music
Don F. Reed (1957) Associate Professor Emeritus, 1980
Physical Education
Jo A. Redmon (1964) Professor Emerita, 1997
Kinesiology and Physical Education
Donald J. Reish (1958) Professor Emeritus, 1988
Biological Sciences
Richard L. Resurreccion (1978) Professor Emeritus, 1999
Occupational Studies
Henry Reyna (1970) Counselor Emeritus, 1987
Fen Rhodes (1967) Professor Emeritus, 2000
Psychology
Susan Rice-Quint (1987) Professor Emerita, 2005
Social Work
Hans P. Ridder (1964) Associate Professor Emeritus, 1991 Political Science
William C. Ritz (1977) Professor Emeritus, 2000 Science Education
Charles A. Roberts, Jr. (1956) Professor Emeritus, 1986 Physics and Astronomy
Roberts, Sharon L. (1974) Professor Emerita. 2005 Nursing
James C. Robinson (1972) Professor Emeritus, 2003 Black Studies
Robinson, Thomas L. (1989) Professor Emeritus, 2005
Mechanical and Aerospace Engineering
Johanna W. Roden (1962) Professor Emerita, 1991
German and Russian
Mildred S. Rodriguez (1974) Professor Emerita, 1988
Home Economics
Fred Rogers (1959) Associate Professor Emeritus, 1992
Speech Communication
Robert F. Rooney (1970) Professor Emeritus, 1998
Economics
Ailee W. Rose (1951) Professor Emerita, 1974 English
Kay L. Roskam (1974) Professor Emerita, 1994
Music
Ruth A. Ross (1980) Associate Professor Emerita, 1998
Public Policy and Administration
Stephen B. Ross (1968) Professor Emeritus, 1999 Linguistics
Robert D. Routh (1967) Professor Emeritus, 1983 Industrial Education
Kenneth W. Rugg (1964) Professor Emeritus, 1989 Theatre Arts

George E. Rush (1973) Professor Emeritus, 2002
Criminal Justice
Ruth L. Russell (1963) Professor Emerita, 1994
Biological Sciences
Eugene E. Ruyle (1976) Professor Emeritus, 2002
Anthropology
Bruce Ryan (1978) Professor Emeritus, 1997
Communicative Disorders
James E. Ryan (1954) Professor Emeritus, 1983 Industrial Education
Eva Sakamoto (1967) Assistant Professor Emerita, 1982 Nursing

Sema'an I. Salem (1961) Professor Emeritus, 1998
Physics and Astronomy
David N. Samuelson (1966) Professor Emeritus, 2002
English
Federico A. Sanchez (1969) Professor Emeritus, 1999
Chicano Latino Studies
Charles R. Sandefur (1964) Professor Emeritus, 2000 Kinesiology and Physical Education
William F. Sater (1967) Professor Emeritus, 1995
History
Janet B. Sawyer (1957) Professor Emerita, 1986
English
Milton E. Schmidt (1959) Professor Emeritus, 1979 Industrial Education

Paul C. Schmidt (1968) Associate Professor Emeritus, 2004
Political Science
Rosemary T. Schmidt (1969) Assistant Vice President
Emerita, 2001
Division of Student Services
John H. Schmitt (1974) Professor Emeritus, 1989
Spanish/Portuguese
Doris D. Tabor Schroeder (1967) Professor Emerita, 1987
Teacher Education
Cramer W. Schultz (1964) Professor Emeritus, 1991
Physics and Astronomy
James W. Schultz (1963) Associate Professor Emeritus, 1980 Physical Education
Arnold T. Schwab (1961) Professor Emeritus, 1980 English
Donald Schwartz (1987) Professor Emeritus, 2005
History
Howard J. Schwartz (1969) Professor Emeritus, 2001 Mathematics

Morton D. Schwartz (1970) Professor Emeritus, 2002
Computer Engineering and Computer Science
Bruce L. Scott (1965) Professor Emeritus, 1996
Physics and Astronomy
Joseph F. Seewerker (1967) Professor Emeritus, 1992
Computer Engineering and Computer Science
Elbert W. Segelhorst (1964) Professor Emeritus, 1992 Economics
Nail M. Senozan (1968) Professor Emeritus, 2002 Chemistry and Biochemistry
Thomas M. Serrett (1963) Assistant Librarian Emeritus, 1980
Norman E. Sexauer (1967) Professor Emeritus, 1992
Mathematics
John W. Shainline (1966) Vice President for Student
Services Emeritus, 1990
Tyntje Shapli (1983) Professor Emerita, 2000 Dance
Shaak, John J. (1963) Professor Emeritus, 1998 Art
Peter L. Shaw (1974) Professor Emeritus, 1994
Public Policy and Administration
Kwang Y. Shen (1961) Professor Emeritus, 1998
Physics and Astronomy
Gail Shoup (1969) Professor Emeritus, 1989
Theatre Arts
Martha A. Siegel (1975) Professor Emerita, 1994
Nursing

Robert M. Simmons (1959) Professor Emeritus, 1983 Management/Human Resources Management
Gene R. Simonsen (1958) Professor Emeritus, 1990 Economics
Sidney B. Sims, Jr. (1960) Senior Assistant Librarian Emeritus, 1994
Lorelei P. Sinclair (1966) Assistant Librarian Emerita, 1991
William A. Sinclair (1970) Professor Emeritus, 2002
Kinesiology and Physical Education
Bernard J. Skalka (1967) Professor Emeritus, 1998 Theatre Arts
A. Keith Skarsten (1956) Professor Emeritus, 1982 English
Iva L. Skov (1972) Professor Emerita, 1998 Economics

Carl J. Slawski (1970) Professor Emeritus, 2001 Sociology
Elbert L. Sleeper (1957) Professor Emeritus, 1992
Biological Sciences
Alton H. Smith (1957) Professor Emeritus, 1992 Mathematics
Donald H. Smith (1960) Professor Emeritus, 1986 Industrial Education
Earl M. Smith (1968) Professor Emeritus, 1991
Technology Education
Peggy J. Smith (1968) Professor Emerita, 1992 Sociology
Robert J. Smith (1966) Professor Emeritus, 1992
Management/Human Resources Management
Sara W. Smith (1969) Professor Emerita, 2004
Psychology/Linguistics
Larry C. Snider (1970) Librarian Emeritus, 2000
University Library
John C. Snidecor (1969) Professor Emeritus, 2005 Art
Lynn S. Snyder (1988) Professor Emerita, 1998 Communicative Disorders
Christian Soe (1967) Professor Emeritus, 2001
Political Science
George A. Spangler (1971) Professor Emeritus, 2004
Philosophy
Colleen Sparks (1978) Professor Emerita, 1997
Nursing
Doris S. Specht (1985) Head, Humanities Librarian Emerita, 1973
Richard D. Spiese (1967) Associate Professor Emeritus, 1997 English
Richard Spiller (1969) Professor Emeritus, 1997 Marketing
Joel B. Splansky (1969) Professor Emeritus, 2001
Geography
Arnold R. Springer (1968) Professor Emeritus, 2001 History
Raymond T. Stefani (1971) Professor Emeritus, 2004
Electrical Engineering
Meyer L. Stein (1974) Professor Emeritus, 1989 Journalism
Andrew Stern (1967) Professor Emeritus, 2004 Economics
Charles E. Stetler (1967) Professor Emeritus, 1992 English
A. Jay Stevens (1968) Professor Emeritus, 2002

Political Science
Thomas G. Stevens (1973) Psychologist Emerirtus, 2004
Counseling and Psychological Services
Perri J. Stinson (1969) Professor Emerita, 1988
Information Systems
Harry E. Stiver, Jr. (1964) Professor Emeritus, 1983
Theatre Arts
Lavonne L. Stock (1959) Professor Emerita, 1980
Physical Education
Herbert Stone (1958) Professor Emeritus, 1995
Management/Human Resources Management
Robert E. Strain (1956) Professor Emeritus, 1978 Economics
Jack M. Stuart (1967) Professor Emeritus, 2000 History
Vivian M. Sucher (1962) Professor Emerita, 1986
Nursing and Gerontology
Roy A. Sugimoto (1969) Associate Professor Emeritus, 1988
Teacher Education
Gerald L. Sullivan (1968) Professor Emeritus, 1998
English
Sabri Sungu (1961) Professor Emeritus, 1983
Mechanical Engineering
Robert J. Swan (1964) Professor Emeritus, 1986
Educational Psychology and Administration
Frank E. Swatek (1956) Professor Emeritus, 1992
Biological Sciences
Frederick M. Swensen (1961) Professor Emeritus, 1990
French/Italian
Richard H. Swift (1958) Professor Emeritus, 1980
Art
Mary Christine Talmadge (1993) Professor Emerita, 2001 Nursing
Norma Bernstein Tarrow (1968) Professor Emeritus, 1997
Teacher Education
Kenneth S. Teel (1969) Professor Emeritus, 1988
Management/Human Resources Management
Richard J. Teweles (1967) Professor Emeritus, 1991
Finance, Real Estate and Law
A.G. Tharp (1959) Professor Emeritus, 1987

Chemistry
Joy E. Thomas (1981) Librarian Emerita, 2003
Lindsay Thomas, Jr. (1961) Professor Emeritus, 1992
French and Italian
Charles M. Thompson (1956) Professor Emeritus, 1983
Art
Talmadge C. Tillman, Jr. (1968) Professor Emeritus, 1991
Accountancy
F. Alan Timmons (1954) Professor Emeritus, 1980 Instructional Media
Djoe T. Tjioe (1970) Associate Professor Emeritus, 2000 Biological Sciences
Dale P. Toohey (1972) Professor Emeritus, 2001
Kinesiology and Physical Education
Bruce J. Torby (1961) Professor Emeritus, 2000
Mechanical Engineering
John A. Torney, III (1957) Professor Emeritus, 1986
Health Science
Leonard Torres (1956) Professor Emeritus, 1988
Industrial Education

William J. Traynor (1973) Professor Emeritus, 1992 Management/Human Resources Management
Thomas Trombetas (1961) Professor Emeritus, 1989 Political Science
Robert G. Trout (1961) Professor Emeritus, 1991 Technology Education
Ching H. Tsao (1965) Professor Emeritus, 1986 Mechanical Engineering
Robert E. Tumelty (1974) Professor Emeritus, 1992 Health Care Administration
Efraim Turban (1991) Professor Emeritus, 1999 Information Systems
Theresa G. Turk (1970) Professor Emerita, 1995 Sociology
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Mechanical and Aerospace Engineering
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Mechanical Engineering
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Geography
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Computer Engineering and Computer Science/Mathematics
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| Chemistry and Biochem | Pittsburgh, Pennsylvania. |
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| of California, Los Angeles, and California State University, Los Angeles | tonio, A. John (1988)....................................Librarian |
| Cormack, Jody C. (2003)............................ Associate Professor | University Library |
| Physical Therapy <br> B.S., California Sta | B.A., Siena College; M.S.Ed., State University of New York, New Paltz; M.S.L.S., The Catholic University of America. |
| California. | Danay, Richard (1985) ............................................ Professor |
| Costa, D. Margaret (1974) ..................................... P. Professor | American Indian S |
| Kinesiology <br> B.S., M.Ed., University of Massachuse | B.A., California State University, Northridge; M.A., California State University, Chico; M.F.A., University of California, Davis. Emeritus, 2005. |
| Costa, Maria Victoria (2004) | Dank, Barry M. (1968) .......................................... Professor |
| Philosophy <br> B.A., M.A., Ph.D., Universidad Nacional de | Sociology <br> B.A., Holfstra University; M.A., Ph.D., University of Wisconsin. Emeritus, 2000 |
| Councilman, Samuel G. (1968) | Das, Mihir K. (1981) ................................................. Professor |
| Mathematics and Statistics <br> B.A., M.A., Ph.D., University of California, Los Angeles. Emeritus, 2004 | Mechanical and Aerospace Engineering <br> B.S., Bihar Institute of Technology, India; Ph.D., University of Birmingham, England. |
| Cox, Carole (1988) ................................................. Professo | Das, Radhe (1982) ................................................. Professor |
| Teacher Education <br> B.A., University of California, Los Angeles; M.A., Ph.D., University of Minnesota, Minneapolis. | Electrical Engineering <br> B.S., University of Ranchi, India; M.S. University of Calcutta, India; Ph.D., University of Washington, Seattle. Emeritus, 2003. |
| Cramer, Renee A. (2001) ............................ Assistant Prof | Daugherty, Emma L. (1997)....................................... Professor |
| Political Scienc | Journalism |
| B.A., Bard College; M.A., Ph.D., New York University. | B.S., West Virginia University; M.A., Michigan State University. |
| Crass, Scott W. (2001)............................... Associate Professo | Davidson, David B. (1983) ........................................ Professor |
| Mathematics and Statistics <br> B.A., Evangel College; B.A., California State University, Long Beach; M.A., University of Notre Dame; Ph.D., University of California, San Diego. | Accountancy <br> B.S., California State University, Los Angeles; M.A., Ph.D., University of Northern Colorado; CPA Certificate, Colorado. |
| Crego | Davis, James A. (1985) ......................................... Professor |
| University College and Extension Services <br> B.A., Occidental College, Los Angeles; Ph.D., University of North Carolina, Chape | Kinesiology <br> B.A., M.A., San Diego State University; Ph.D., University of California, Davis |
| Cretara, Domenic (1986) ....................................... Professor | Davis, Jeffrey P. (1997)............................... Assistant Professor |
| Art <br> B.F.A., M.F.A., Boston University. | Sociology/Human Development <br> B.A., M.A., North Carolina Central University; Ph.D., North Carolina State University. |
| Croke, Eileen M. (1999) .............................. Assistant Professor | Day, Linda A. (2002)................................... Assistant Professor |
| Nursing <br> B.S.N., Northeastern University; M.S.N., California State University, Long Beach; Ed.D., Pepperdine University. | Art B.A., Colby College, Waterville, ME; M.F.A., Pratt Institute, Brooklyn, NY. deAlbuquerque, Joan (2004) $\qquad$ Assistant Professor |
| Crowther, Simeon J. (1968) .................................. Professor |  |
| Ec | B.M., M.M., Michigan State University. |
| B.S., University | Dede, Martha J. (1999).............................. Associate Professor |
| Crussemeyer, Jill A. (1998) .......................... Assistant Professor | Graduate Center for Public Policy and Administration |
| Kinesiology <br> B.S., Long Island University; M.S., University of Massachusetts; Ph.D., University of | B.S., University of San Francisco; M.P.A., San Francisco State University; Ph.D., Virginia Polytechnic Institute and State University. |
| Oregon. | DeGuire, Linda J. (1990)........................................... Professor |
| Cummings, Tanya R. (2000)......................... Assistant Professor | Mathematics and Statistics |
| Art <br> B.F.A., California State University, Long Beach; M.F.A., Calfiornia State University, Fullerson. | B.A., Fontbonne College, St. Louis; A.M., Stanford University; M.A., Ed.D., University of Georgia, Athens. |
| Curry, Denise (1995) ........................................Assistant Coach | Deitch, Kathryn V. (1997) .............................. Associate Professor <br> Nursing |
| Women's Basketball <br> B.A., University of California, Los Angeles; M.A., CSU Dominguez Hills. | B.S., University of Maryland; M.S., Texas Woman's University; M.A., Ph.D., Claremont Graduate School. |
| Curtis, James R. (1995) ............................................ Professor | Del Campo, Alicia (2000)........................... Associate Professor |
| Geography <br> B.A., M.A., San Jose State University; Ph.D., University of California, Los Angeles. | Romance, German, Russian Languages and Literatures <br> M.A., University of Chile, Santiago, Chile; M.A., University of Minnesota, Minneapolis; Ph.D., University of California, Irvine. |


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| :---: | :---: |
| Geography/Liberal Studies | Dance |
| B.A., Bucknell University, Lewisburg, Pennsylvania; M.S., University of Wisconsin; Ph.D., | B.A., Hamilton College, Clinton, NY; Ph.D., University of California, Riverside. |
| University of Kentucky, Lexington. | Dunbar, Norah E. (2000) ............................. Associate Professor |
| Delgado, Grace P. (2000)............................. Assistant Professor | Communication Studies |
| Chicano and Latino Studies <br> B.A., M.A., Ph.D., University of California, Los Angeles. | B.A., University of Nevada, Reno; M.A., California State University, Chico; Ph.D.,University of Arizona. |
| Demirdjian, Zohrab (1979) ...................................... Professor | Eatmon, Stephanie L. (1998)..................... Associate Professor |
| Marketing <br> B.S., M.B.A., Arizona State University; Ph.D., Louisiana State University. Emeritus, 2005 | Health Science <br> B.S., Idaho State University; M.Ed., Loma Linda Univers |
| Dennis, Christopher D. (1985) ............................... Profe | Ebert, Todd (2001) ................................... Associate Professor |
| Political Science <br> B.A., M.A., California State University, Long Bea | Computer Engineering and Computer Science B. S., California State Univesity, Long Beach; M |
| Deschenes, Elizabeth (19) | Barb |
| Criminal Justice | Ebneshahrashoob, Morteza (1990)........................... Professor |
| B.A., Colby Colelge, ME; M.A., Ph.D., University of Pennsylvania. | Mathematics and Statistics |
| DeSoto, Simon (1969) .............................................. Professor | B.S., University of Tehran; M.S., Ph.D., Oklahoma State University. |
| Mechanical and Aerospace Engineering | Echevarria, Jana (1993) ............................................... Professor |
| B.M.E., City College of New York; M.M.E., Syracuse University, Ph.D., University of California, Los Angeles. Emeritus 2002. | Educational Psychology, Administration and Counseling B.A., M.A., California State University, Long Beach; Ph.D., |
| Dick, Wayne E. (1981) ........................................... Profe | Angeles. |
| Computer Engineering and Computer Science | Edmondson, Betty V. (1964) ................................ Professor |
| B.A., M.A., Ph.D., University of California, San Diego. | Kinesiology |
| Dillon, Jesse G. (2004) .............................. Assis | B.S., University of Nevada; M.A., San Jose State University. Emerita, 1999. |
| Biological Sciences | Edwards, Alejandra C. (1986) ................................. Professor |
| B.A., Wesleyan University, Middletown, CT; Ph.D., University of Oregon, Euge | Economics |
| Dinielli, Gene L. (1968) ........................................... Professor | Licenciado En Economia, Ingeniero Comercial, Universidad Catolica de Chile; M.A., Ph.D., University of Chicago. |
| English <br> B.A., M.A., University of Connecticut. | Edwards, Dave (2004) .................................................... Director |
| Domingo-Foraste, Douglas (1990) Professor <br> Comparative World Literature and Classics | University Student Union <br> B.S., University of Evansville, Indiana; M.S., Southern Illinois University, Carbondale, Illinois. |
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| Donato, Clorinda (1989) ............................................ Professor |  |
| Romance, German, Russian Languages and Literatures B.A., University of California, Berkeley; M.A., Ph.D., University of California, Los Angeles. | B.A., Connecticut College, New London, Connecticut; Ph.D., Indiana University, Bloomington, Indiana. |
| Dorn, Carl H. (1968) ................................................ Professor | Englert, Burkhard (2003)........................... Associate Professor |
| Mathematics and Statistics <br> B.A., University of California, Berkeley; Ph.D., University of California, Los Angeles. | Computer Engineering and Computer Science <br> B.S., University of Tübingen, Germany; M.S., (2), Ph.D., University of Connecticut. |
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| Dowell, David A. (1977) ..... Vice Provost, Enrollment Resources | Esfandiari, Ramin S. (1991) ...................................... Professor |
| Academic Affairs | Mechanical and Aerospace Engineering <br> B.S., M.A., Ph.D., University of California, Santa Barbara. |
| Office of the President | Espana-Maram, Linda N. (1997) .................. Assistant Professor |
| Psychology ...................................................................... Professor | Asian and Asian American Studies <br> B.A., M.A., California State University, Fullerton; M.A., Ph.D., University of California, Los |
| B.S., Middle Tennessee State University; M.A., Ph.D., University of Tennessee. |  |
| Downey, Sharon D. (1987)......................................... Professor |  |
| Communication Studies <br> B.A., Florida State University, Tallahassee; M.A., University of Nevada, Las Vegas; Ph.D., University of Colorado. | B.A., University of California, Berkeley; M.A., Ph.D., University of Arizona. <br> Espinoza, Andrew J. (1998) $\qquad$ Director |
| Doyle, Alicia M. (2003)................................ Assistant Professor | Educational Opportunity Program <br> B.A., University of California, Los Angeles; M.P.A., California State University, Long Beach. |
| Music <br> B.M., University of Southern California; M.A., Ph.D., University of California, Santa Barbara. | Evans, Dale W. (1988) $\qquad$ Professor <br> Health Science |
| Druzgalski, Christopher (1970) ................................. Professor | B.S., M.S., George Williams College; H.S.D., Indiana University, Bloomington. |
| Electrical Engineering | Evashwick, Connie J. (1993)...................................... Professor |
| B.S., M.S., Technical University, Poland; M.S., Ph.D., Ohio State University, Columbus. DuBois, Henry J., Jr. (1967) $\qquad$ Associate Dean | Health Care Administration <br> A.B., M.A., Stanford University; M.Sc., Sc.D., Harvard School of Public Health, Massachusetts. |
| University Library | Eveland, Vern K. (1984)............................................. Professor |
| University Library <br> B.A., M.P.A., California State University, Long Beach; M.L.S. University of California, Berkeley. | Biological Sciences <br> B.S., State University of lowa, lowa City; M.S., Ph.D., University of lowa, lowa City. |
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| Teacher Education <br> B.A., California Polytechnic University, San Luis Obispo; M.S., California State University, |  |



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Athletics Department
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B.M., Southern Illinois University; M.A., Ph.D., University of Kentucky, Lexington.

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Health Science
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Geological Sciences
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Family and Consumer Sciences
B.S., Texas Tech University; M.A., Ph.D., Tulane University.

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Health Care Administration
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Kinesiology
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Health Science
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Associate Dean
College of Natural Sciences and Mathematics

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Associate Professor
Economics
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Nursing
B.S.N., M.S.N., San Diego State University, CA; D.N.Sc., University of San Diego, CA.

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Biological Sciences
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Mathematics and Statistics
B.S., M.S., Zhongshan University, China; Ph.D., Michigan State University.

Garhammer, John J. (1985)................................................ Director
Movement Science Laboratories

Kinesiology
B.S., Pennsylvania State University; M.S., Lehigh University, Pennsylvania; M.S., Ph.D.,

University of California, Los Angeles. Emeritus, 2005.

| Gasior, Bonnie L. (2001)............................. Assistant Professor | Goldish, Dorothy M. (1958)....................................... Professor |
| :---: | :---: |
| Romance, German, Russian Languages and Literatures | Chemistry and Biochemistry |
| B.A., Saint Joseph's University; M.A., Ph.D., Purdue University. | B.S., Stanford University; Ph.D., University of California, Berkeley. Emerita, 2003. |
| Gau, Yihnan D. (1988) .......................................... Professor | Goldstein, Avery E. (1990) ........................ Associate Professor |
| Mathematics and Statistics | Family and Consumer Sciences |
| B.S., National Taiwan University; Ph.D., Purdue University. | B.A., University of California, Los Angeles; M.A., University of the Pacific; Ph.D., Purdue |
| Gaut, Deborah A. (2003)............................. Assistant Professor | University. |
| Information Systems | Goldstein, Cora S. (2002).......................... Assistant Professor |
| B.A., M.A., Auburn University, AL; Ph.D., University of Oklahoma. | Political Sci |
| George, Barbara C. (1961) ......................................... Professor | B.A., University of California, Berkeley; M.A., Ph.D., Univesity of Chicago. |
| College of Business Administration | Goldstein, Darin A. (2002)........................ Associate Professor |
| B.A., Bennett College, Greensboro, North Carolina; J.D., State University of lowa, Member, Iowa State Bar, California State Bar, U.S. Supreme Court Bar. Emerita, 2001. | Computer Engineering and Computer Science B.S.E., Princeton University; Ph.D., University of California, Berkeley. |
| George, Larry N. (1989) | Golez, Felipe V. (1997).............................................. Professor |
| Political Scie | Teacher Education |
| B.A., University of California, Irvine; M.A., Ph.D., Princeton. | B.A., University of California, Santa Barbara; M.A., California State University, L Angeles; Ph.D., University of New Mexico. |
| Ghafoori, Bita (2005) ................................ Associate Professo |  |
| Educational Psychology, Administration, and Counseling | Gonsaives, John, Jr. (1969) .................................... Professor |
| B.S., University of California, Irvine; M.A., Pepperdine University; M.A., Ph.D., Alliant International University. | Kinesiology <br> B.A., M.A., California State University, Long Beach. Emeritus, 2003. |
| Gharakhanian, Editte (1990).................................... Professor | Goodman, Catherine C. (1985) ............................... Professor |
| Biological Science |  |
| Gibson, J. William | Angeles. |
| Sociology | Gordon, Joanne L. (1989) ........................................... Professor |
| B.A., University of Texas, Austin; M.A., Ph.D., Yale University. | Theatre Arts |
| Gibson, Katie L. (2004)............................... Assistant Professor | B.A., M.A., University of Witwatersrand, South Africa; Ph.D., University of California, Los Angeles. |
| Communication Studies <br> B.A., Loyola Marymount University, Los Angeles, CA; M.A., California State University, Northridge; Ph.D., Pennsylvania State University, University Park. | Gossette, Franklin E. (1987) ...................................... Professor Geography |
| Gilmore, Paul D. (2002) ............................. Associate Professor | B.A., University of Oregon, Eugene; M.A., University of Oregon; Ph.D., University of California, Los Angeles. Emeritus, 2005. |
| English <br> B.A., University of Mississippi, Oxford; M.A., Ph.D., University of Chicago. | Grace, Debra M. (2001).............................................. P. Professor |
| Gimmillaro, Brian S. (1992)..................................... He. Head Coach | Accountancy <br> B.F.A., M.B.A., Ohio University; Ph.D., Oklahoma State University |
| Women's Volleyball <br> B.A., California State University, Long Beach. | Granger, Jean M. (1972) ........................................... Professor |
| Gittleman, Arthur P. (1966) ....................................... Professor | Social Work B.A., Fisk Uni |
| Computer Engineering and Computer Science | Emerita, 2002. |
| B.A., M.A., Ph.D., University of California, Los Angeles. | Grannell, Roswitha B. (1967) .................................. Professor |
| Glenn, Constance W. (1973) ...................................... Professor | Geological Sciences |
| Art | B.A., Pomona College; Ph.D., University of California, Riverside. |
| B.A., University of Kansas; M.A., California State University, Long Beach. Emerita, 2004. | Gray, Todd (1997)..................................... Associate Professor |
| Glezakos, Constantine (1968) ...................................... Professor |  |
| Economi | B.F.A., M.F.A., California Institute of the Arts. |
| B.A., Athens School of Economics; M.A., Ph.D., University of Southern California. Emeritus, 2003. | Green, Jack (1970) ................................................ Professor |
| Godfrey, R. Michael (1989)........................................ Professor | Geological Sciences <br> B.S., Virginia Polytechnic Institute; Ph.D., Columbia University. |
| Information Systems <br> B.A., Amherst College; M.P.A., Ph.D., University of Southern California. Emeritus, 2005. | Green, James N. (1996) .............................. Associate Professor |
| Goitom, Tesfai (1983) $\qquad$ Director <br> Center for Excellence in Construction | History <br> B.A., Earlham College; M.A., California State University, Los Angeles, Ph.D., University of California, Los Angeles. |
| .. Professo | Green, Kenneth F. (1968) ........................................ Professor |
| Civil Engineering and Construction Engineering Management <br> B.S., National University, Ethiopia; B.S., University of Wisconsin, Platteville; M.S., Ph.D., Michigan State University. | Psychology <br> B.A., Brown University; M.S., Ph.D., University of Massachusetts. <br> Greenberg, Suzanne A. (1995) $\qquad$ Associate Professor |
| Goldberg, Yechiel S. (2002) ....................... Assistant Professor |  |
| Religious Studies <br> B.A., Brandeis University; M.A., Ph.D., New York University. |  |
| Goldberg-Hamblin, Sara E. (2002)............... Assistant Professor | Greene, Gary M. (1993)................................................. Professor <br> Educational Psychology, Administration and Counseling |
| Educational Psychology, Administration, and Counseling B.A., M.A., Ph.D., University of California. | B.A., University of California, Los Angeles; M.A., University of Southern California; Ph.D., University of California, Riverside. |
| Goldenberg, Claude N. (1994) ....................................... Director | Green-Vargas, Debbie (1985)...........................Assistant Coach |
| Cneter for Language Minority Education and Research | Women's Volleyball. <br> B.S., California State University, Long Beach. |
| College of Education | Gregory, Kenneth M. (1973) ................................... Professor |
| ... Professor | Biological Sciences <br> B.A., Ph.D., University of California, Berkeley. Emeritus, 2001. |
|  |  |


| Grenot-Scheyer, Marquita (1988) ..................... Associate Dean | Haglund, Elaine J. (1972) ......................................... Professor |
| :---: | :---: |
| College of Education | Educational Psychology, Administration and Counseling <br> B.A., University of California, Los Angeles; M.A., Ph.D., Michigan State University. Emerita, 2004. |
| Center for Collaboration in Education .............................................................................. Professor | Hakim-Butt, Karen L. (1994) $\qquad$ Professor <br> Kinesiology |
| Educational Psychology, Administration and Counseling B.A., M.A., California State University, Los Angeles; Ph.D., | B.S., Slippery Rock State College, PA; M.A., Columbia State Teachers College; Ed.D., University of North Carolina. |
| Angeles/California State University, Los Angeles. | Hall, Darwin C. (1986) ........................................... Professor |
| Grey, Jennifer Jen (1975) ......................................... Pr. Professor | Ec |
| Art <br> B.F.A., Bradley University; M.F.A., Hoffberger School of Painting of the Maryland Institute. | B.A., University of California, Santa Barbara; M.S., M.A., Ph.D., University of California, Berkeley. |
| Griffin, Wendy (1991) | Hall, Thomas E. (1981) .......................................... Professor |
| Women's Studies Program <br> B.A., M.A., Ph.D., University of California, Irvine. | Art <br> B.F.A. Kansas City Art Institute; M.F.A. Drake University. Emeritus, 2005. |
| Griffith, William H. (1989) | Haller, Richard (1983).................................. Executive Director |
| Administration and Finance <br> B.S., University of Illinois; M.S., National College of Education | Associated Students Inc. <br> B.A., California State University, Long Beach. |
| Grimmett, Dixie A. (1965) .. Executive Assistan | Hamano, Fumio (1989) ............................................. Professor |
| Office of the President | Electrical Engineering <br> B.E., M.S.E., Tokyo Institute of Technology; Ph.D., University of Florida. |
| Kinesiology | Hanley, Gerard L. (1984) .............................................. Director |
| B.S. Brigham Young University; M.A., Washington State University; Ed.D., Brigham Young University. | Center for Usability in Design and Assessment B.A., M.A., Ph.D., State University of New York. |
| Griswold, W. Gary (2003) ........................... Assistant Profe | Hansen, Eric L. (1989) .............................. Associate Professor |
| English <br> B.A., M.A., California State University, Long Beach; Ph.D., Claremont Graduate University, CA. | Management/Human Resourses Management <br> B.A., Rutgers University; M.B.A., University of Chicago; Ph.D., University of Tennessee, Knoxville. |
| Grobar, Lisa M. (1989) | Harbinger, Holly (1986)..................................... Associate Dean |
| Economics <br> B.A., Smith; Ph.D., University of Michigan, Ann Arbor | College of the Arts |
| Gross, Mark W. (1988) ............................................ Professor | Theatre Arts |
| Physics and Astronomy | B.A., University of California, Santa Cruz; M.F.A., New York University. |
| B.S., Washington University, St. Louis; M.S., Ph.D., Univ | Harman, Marsha S. (1966) ...................................... Professor |
| Grote, Karl-Heinrich (1984-1986, 1990)....................... Profes | Sociology |
| Mechanical and Aerospace E | B.A., M.A., Ph.D., University of California, Los Angeles. Emerita, 2003. |
| Dr.-Ing., Technical University Berlin, Germ | Hart, George L. (2002) .............................. Associate Professor |
| Gu, Jiyeong (2004)..................................... Assistant Professor | English |
| Physics and Astronomy | B.A., Kent State University; M.A., Ph.D., Stanford University. |
| B.S., M.S., Ph.D., Seoul National University, South Korea. | Hartley, Joellen T. (1981) ..................................... Professor |
| Gunal, Nezih (1989) .................................. Assistant Professor | Psychology |
| Civil Engineering and Construction Engineering Management <br> B.S., M.S., California State University, Long Beach; Ph.D. Candidate, University of Southern California. Emeritus, 2005. | B.S., M.S., University of California, Davis; Ph.D., University of California, Irvine. Emerita, 2003. |
| Gunatilake, Sarath (1987) ........................................ Professor | Hartung, Elisabeth S. (1988) ......................................... Professor <br> Art |
| Health Science <br> B., Medicine and Surgery, University of Colombo, Sri Lanka; M.P.H., University of Hawaii, | B.S., Iowa Wesleyan College; M.A., University of Northern lowa; Ph.D., Arizona State University. |
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| Gunns, Albert F. (1967) .............................................. Professor | Computer Engineering and Computer Science |
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|  | 77) |
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|  | , Williams Colle |
| Herman, Martin (1989)................................................... Professor |  |
|  | Music <br> B.A., Duke Berkeley. |
| Hershberger, Scott L. (1998) |  |
|  | orida A |
| Hertz, Robert M. (1969) .......................................... Professor |  |
|  | Linguistics/English B.A., Rutgers Universi California. |
| Hibbets, Maria R. (1999). |  |
|  | eligious Studies A., Reed Colle |
| Hickey, William M. J. (2000) ....................Assistant Professor |  |
|  | Professional Studies <br> B.A., M.A., Florida State University, Tallahasse Park. |
| Hickman, Roger C. (1988) |  |
|  | B.A., U |
| Hickman, William J. (1989) ......................... Associate Professor |  |
|  | Theatre Arts B.A., Bucknell Orleans. |
| High, Jeffrey L. (2002) ............................... Assistant Professor |  |
|  | Romance, German, Russian Languages and Literatures B.A., University of Massachusetts, Boston; M.A., Ph.D., University of Massachuse Amherst. |
|  | Hile, Lloyd R. (1968) ........................................... Professor |
|  | Chemical Engineering B.S., University of California, Berkeley |
|  | I, Grant M. (2001) |
|  | Kinesiology <br> B.A., Northwest College of Ph.D., University of lowa. |
|  | , Jennifer (1998) |
| Women's Tennis. <br> B.A., University of California, Los Angeles. |  |
| Hintzen, Paul M. N. (1992) .......................................... Professor |  |
| B.S., University of Minnesota, Minneapolis; Ph.D., University of Arizona. <br> Hirschfeld, Nicolle E. (2002) $\qquad$ Assistant Professor |  |
|  |  |
| Comparative World Literature and Classics <br> B.A., Bryn Mawr College; M.A., Texas A\&M University; Ph.D., University of Texas, Austin. |  |
| Hlousek, Zvonimir (1990)......................... Associate Professor |  |
| Physics and Astronomy <br> B.Sc., University of Zagreb, Yugoslavia; M.S., Ph.D., Brown University. |  |
| Hoffman, Michael A. (2002)........................ Associate Professor |  |
| Computer Engineering and Computer Science <br> B.A., University of New Orleans; M.S., University of Southern Mississippi; Ph.D., Louisiana State University, Baton Rouge |  |
| Hoffman, Rose Marie (1997) ..................................... Professor |  |
| Educational Psychology, Administration and Counseling B.A., State University of New York at Albany; M.S., Canisius College; Ph.D., University of North Carolina at Greensboro. |  |
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History
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Marketing
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Dean of Students
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B.A., National Taiwan University; M.A., Ph.D., Yale.

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College of Education

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B.F.A., California State University, Long Beach; M.F.A., Syracuse University.

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Assistant Coach
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B.A., University of California, Riverside.

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Anthropology
B.A., State University of New York, Geneseo; M.A., Ph.D., State University of New York, Stony Brook.
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Professor
Physics and Astronomy
B.S., National Taiwan University, Taipei, Taiwan; Ph.D., Massachusetts Institute of Technology. Emerita, 2005.
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English
B.A., Berea College, KY; M.A., University of Wisconsin; Ph.D., University of London.

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Black Studies
B.S., M.S., California State University, Los Angeles; M.A., Ph.D., Temple University,

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Nursing
B.S., M.S., Ph.D., University of California, Los Angeles

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Biological Sciences
B.S., M.S., Louisiana State University; Ph.D., University of Michigan.

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Religious Studies
B.A., Manhattan College, New York City; M.Div., Pittsburgh Theological Seminary; M.A.,

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Hunt, Herbert G., III (2002) $\qquad$ Professor

Accountancy
B.A., University of Vermont; M.B.A., University of Vermont; Ph.D., University of Colorado at Boulder
Hupka, Ralph B. (1969)
Professor
Psychology
B.A., M.A., San Francisco State University; Ph.D., University of Massachusetts. Emeritus,
2005.

| Hytrek, Gary | Jimenez, Jillian (1988) ........................................... Professor |
| :---: | :---: |
| Sociology <br> B.A., California State University, Bakersfield, M.A. (2), Ph.D., University of California, Los Angeles. | Social Work <br> B.A., Immaculate Heart College; M.A., University of California, Los Angeles; M.S.W., San Diego State University; Ph.D., Brandeis University. |
| Ingrassia, Mauricio (2004)........... Head | Jocoy, Christine (2004) .............................. Assistant Professor |
| Athletics Department M.A., Azuza Pacific University | Geography <br> B.A., Vassar College, NY; M.S., Ph.D., Pennsylvania State University, University Park. |
| Irelan | Johnson, Ann M. (2003) ............................. Assistant Professor |
| Criminal Justice <br> B.A., (2), M.A., Ph.D., University of California, Irvine Ishimine, Tomotaka (1967) $\qquad$ | Communication Studies <br> B.S., University of Utah; M.A., University of New Mexico; Ph.D., University of Massachusetts, Amherst. |
| Economics B.A., Kobe University, Japan; M.A., M. | Johnson, Corey W. (2003)........................... Assistant Professor Recreation and Leisure Studies |
| Itatani, Carol A. (1975) ............................................ P. Professor | B.S., Bowling Green State University; M.S., The University of North Carolina, Chapel Hill; Ph.D., The University of Georgia. |
| Biological Sciences <br> B.A., University of California, Los Angeles; M.S., California State University, Long Beach; Ph.D., University of Southern California. | Johnson, Keith R. (1997) $\qquad$ Assistant Professor |
| Jackson, Hazel O. (1994) ......................................... Professor | B.S., Brigham Young University; M.F.A., University of Utah. |
|  | Johnson, Leayn (1981) ................................................ Professor |
| B.S., Tennessee State University; M.A., Michigan State University; Ph.D., Tennessee, Knoxville. Emerita, 2004. | Nursing <br> B.S., Wright State University; M.S., Ohio State University; Ph.D., United States |
| Jacob, Mary (1980) ............................................... Professor | International University. Emerita, 2005. |
| Family and Consumer Sciences | Johnson, Lorin (2005) ............................... Assistant Professor |
| B.S., M.S., Women's Christian College, India; M.S., University of London; Ph.D., University of Illinois, Urbana. Emerita, 2004. | Dance <br> B.A., University of Southern California; M.A., University of Southern California. |
| Jacobs, Alan P. (2005) ............................... Assistant Professor | Johnson, Noel D. (2004)............................. Assistant Professor |
| Film | Economi |
| B.A., Columbia University; M.F.A., Columbia University. | B.A., Kenyon College, Gambier, OH; M.A., Ph.D., Washington University, St. Louis |
| Jacques, David Martin (1998) .................... Associate Professor | Johnson, Patricia-Anne (2001)................... Assistant Professor |
| Theatre Arts <br> B.F.A., University of Miami; M.F.A., Southern Method | Women's Studies/College of Liberal Arts B.A., Upper lowa University; M.T.S., Garrett Theological Seminary; Ph.D., Northwestern University. |
| J | Johnson, Thomas G. (1989) ...................................... Professor |
| B.A., University of Delaware; M.A., Ph.D., Indiana University at Bloomington. <br> Jahn, Min-Ten (1986) $\qquad$ Professor | Computer Engineering and Computer Science <br> B.A., Oberlin College; M.S., Youngstown State University; Ph.D., University of California, Davis. |
| Mechanical and Aerospace Engineering <br> B.S., Taiwan Normal University; M.A., Ph.D., State University of New York, Stony | Johnson, Troy R. (1994) .......................................... Professor |
| James, Katherine (1993) ............................. Associate Professor | History/American Indian Studies Program <br> B.A., San Diego State University; M.A., Ph.D., University of California, Los Angeles. |
| Recreation and Leisure Studies <br> B.A., Carleton College, Minnesota; M.A., Ph.D., Univer | Johnson, William M. (1965) .................. Associate Professor |
| James, Kenneth (1982) .......................................... Professor | Philosophy <br> B.A., University of California, Berkeley. Emeritus, 2004. |
| Electrical Engineering/Computer Engineering and Computer Science B.S., Case Institute of Technology; M.S., California State University, Fullerto University of California, Irvine. | Johnston, Michael W. (1987) $\qquad$ Psychologist <br> Counseling and Psychological Services |
| Jang, Long-Kuan (1984) ....................................... Professor | B.A., Missouri Southern State College; M.S., University of Kansas; Ed.D., Indiana University, Bloomington. |
| Chemical Engineering <br> B.S., M.S., National Taiwan University; Ph.D., University of Sou | Jones, Daniel W. (2002)............................................... Director |
|  | Kinesiotherapy Center at Comm |
| B.A., Western Michigan University; M.L.S |  |
| Janssen, Maridith A. (1999) $\qquad$ Associate Professor <br> Recreation and Leisure Studies | Kinesiology <br> B.A., Fairmont State College, West Virginia; M.A., Case Western Reserve University; Ph.D., University of Toledo, Ohio. |
| B.S., California State University, Sacramento; M.A., California State University, Chico; Ed.D., Oklahoma State University. | Jones, F. Stanley (1988) ......................................... Professor |
| Jarasunas, Emanuel (1976) ....................................... Professor | Religious Studies <br> B.A., Yale University; B.A., M.A., Oxford University; Dr.Theology, Universitaet Goettingen, |
| Mechanical and Aerospace Engineering | Federal Republic of Germany. |
| B.S., California State University, Long Beach; M.S., International Rail University, Germany; Ed.D., Nova University. Emeritus 2002. | Jorgenson, Dale O. (1972) ......................................... Professor |
| Jarvis, Jeffrey (2005) ................................ Assistant Professor | Psychology <br> B.A., Ph.D., University of Minnesota. |
| Music | Jung, John R. (1968) .............................................. Professor |
| Jernigan, John C. (1970) ............................................ Professor | Psychology |
| Comparative World Literature and Classics <br> B.A., Southwestern University; M.A., Purdue University; Ph.D., Indiana University. | B.A., University of California, Berkeley; M.S., Ph.D., Northwestern University. Emeritus 2002. |
| Jeynes, William H. (2001).......................................... Professor | Jura, Jean-Jacques (2005) ......................... Assistant Professor |
| Teacher Education <br> B.A., University of Wisconsin, Madison; M.Ed., Harvard University; Ph.D., University of Chicago. | Romance, German, Russian Languages and Literatures <br> B.A., University of California, Riverside; M.A., California State University, Long Beach; <br> Ph.D., University of California, Irvine. |
| Ji, Hongyu (1999)..................................... Associate Professor | Kaci, Judith A. (1972) ........................................... Professor |
| Art <br> B.F.A., Central Academy of Fine Arts, Beijing, China; M.F.A., State University of New York, New Paltz. | Criminal Justice <br> B.S., Loma Linda University; M.S., California State University, Long Beach; J.D., Southwestern University; LL.M., New York University. |


| Kalowes, Peggy G. (2004).......................... Assistant Professor | Kenneday, Elizabeth (2000) ....................... Associate Professor |
| :---: | :---: |
|  |  |
| B.S.N., M.S.N., California State University, Long Beach. | B.A., M.A., California State University, Long Beach; M.F.A., Ph.D., The Claremont Graduate School. |
| Kaminsky, Arnold P. (1986) .................................... Director | or |
| Center for the Study of Southeast Asia |  |
| Professo | English <br> B.A., Sheffield University, Sheffield, England; M.Phil., Shakespeare Institute, University of |
| Asian and Asian American Studies/History | Birmingham, England; M.A.. Johns Hopkins University; Ph.D., Rice University. |
| B.A., M.A., Ph.D., University of California, Los Angeles | Khan, Mohammed B. (1984) ........................... Associate Dean |
| Kammermeyer, Michael J. (1968) .............................. Professo | College of Business Administration |
| Design <br> B.S., University of Southern California; M.A., California State University, Long Beach. Emeritus, 2003. | ............................................................................................ Professor |
| Kao, Hsin-Sheng C. (1989) ........................................ Professor | B.S., Bangladesh University of Engineering and Technology; M.E., Ph.D., Texas A \& M University. |
| Asian and Asian American Studies <br> B.A., National Taiwan Univeristy; M.A., University of Saskatchewan; Ph.D., University of Southern California. | Khatra, Balwant S. (1987) ........................................... Professor Biological Sciences |
| Kapche, Robert W. (1966) ........................ Associate Professor | B.V. Sc., Veterinary College, Hissar, India; B.S., Punjab University, India; M.S., Punjab University, India; Ph.D., University of Leeds, England. |
| Psychology <br> B.S., Loyola University; M.S., Ph.D., Northwestern University. Emeritus, 2003. | Khoiny, Farideh (1990) ............................. Associate Professor |
| Karenga, Maulana N. (1989) ...................................... Professor | Nursing <br> B.S., Boston University; M.P.A., California State University, Long Beach; M.N., University |
| Black Studies | of California, Los Angeles; Ph.D., Univeristy of Southern California. |
| B.A., M.A., University of California, Los Angeles; Ph.D., United States International University; Ph.D., University of Southern California. | Khoo, I-Hung (2006) Assistant Professor |
| Kataoka, Hiroko C. (1998) .......................................... Professor | Electrical Engineering <br> B.S., M.S., California State University, Long Beach; Ph.D., University of California, Irvine. |
| Asian and Asian American Studies <br> B.A., Kobe College, Japan; M.A., Ph.D., University of Illinois, Urbana-Champaign | Kiang, Melody (1999).................................................... Professor |
| Katz, Steven M. (1973)................................................. Director | Information Systems <br> B.B.A., National Chengchi University, Taiwan; M.S., University of Wisconsin at Madison; |
| Ju | Ph.D., The University of Texas at Austin. |
| B.A., University of California, Los Angeles; M.S., California State University, Long Beach; J.D., Western State University, College of Law, Fullerton. | Kim, Barbara W. (2002).............................. Assistant Professor |
| Kavianian, Hamid R. (1984)....................................... Professor | Asian/Asian American Studies <br> B.A., Pomona College; M.A., Ph.D., University of Michigan, Ann Arbor. |
| Chemical Engineering <br> B.S., Shirza University, Iran; M.S., Ph.D., Colorado School of Mines. Emeritus, 2005. | Kim, Eun Heui (2001).................................. Associate Professor |
| Kearney, Patricia (1987) ............................................. Director | Mat |
| Hauth Center for Communication Skills |  |
| ofe | Kim, Simon S. (2000)................................................ Professor |
| Communication Studies <br> B.S., Illinois State University; M.A., University of Oklahoma, Norman; Ed.D., West Virginia University. | Educational Psychology, Administration, and Counseling <br> B.A., Westminster College, Fulton, Missouri; M.S., University of Kentucky, Lexington; Ph.D., University of Southern California. |
| Keely, Beth R. (1995) ................................................. Professor | Kim, Sung Eun (2005) ................................ Assistant Professor |
| Nursing <br> B.A., M.S., California State University, Los Angeles; M.A., Ph.D., Claremont Graduate School. | Mathematics and Statistics <br> B.A., Inha University, Korea; M.S., Western Illinois University; Ph.D., University of California, Davis. |
| Kelemen, William L. (2001) ........................ Associate Professo | Kim, Yong Hee (1998) ................................ Associate Professor |
| Psychology <br> B.A., University of California, Irvine; M.A., Ph.D., Baylor University, | Mathematics and Statistics <br> B.S., University of Alaska; M.S., University of California, Irvine; Ph.D., University of |
| Kelleher, Marie A. (2003) ............................ Assistant Professor | California, Riverside. |
| History | Kingsford, Laura (1980) ........................................................ Dean |
| B.A., Lewis and Clark College, Portland; M.A., Ph.D., University of Kansas, Lawrence. | College of Natural Sciences and Mathematics |
| Kelley, Kevin M. (1995) ............................. Associate Professor | Professor |
| Biological Sciences <br> A.B., M.A., Ph.D., University of California, Berkeley. | Biological Sciences <br> B.S., Boise State University; Ph.D., University of Utah. |
| Kellogg, Bonnie E. (1989) ........................................ Professor | Kisiel, James F. (2003)................................ Assistant Professor |
| Nursing <br> B.A., Mount St. Mary's College; M.S., California State University, Los Angeles; Ph.D., Loma Linda University. | Science Education <br> B.S., Case Western Reserve University, OH; M.S., University of California, Los Angeles; <br> Ph.D., University of Southern California. |
| Kelly, Kenneth T. (2001)............................................... Director | Klaus, Jeffry J. (1997) ................................................ Director |
| Student Transition and Retention Services <br> B.S., Westfield State College; M.S., University of Southern California. | Student Life and Development <br> B.A., Boise State Univeristy, Idaho; M.P.A., California State University, Long Beach. |
| Kelly, Rory M. (2001).................................. Assistant Professor | Kleinfelder, Karen L. (1993) ....................................... Professor |
| Film and Electronic Arts <br> B.A., M.F.A., University of California, Los Angeles. | Art <br> B.A., M.A., Ph.D., University of Michigan. |
| Kelty, Thomas K. (2003) ............................. Assistant Professor | Kleinpeter, Christine B. (1999)................... Associate Professor |
| Geological Sciences/Science Education <br> B.S., San Jose State University; M.S., University of Southern California; Ph.D., University of California, Los Angeles. | Social Work <br> B.A., University of California, Irvine; M.S.W., University of Southern California; Psy.D., Pepperdine University. |
| Kenealy, Patrick F. (1988) ..................................... Professor | Klig, Lisa S. (1990)................................................... Professor |
| Physics and Astronomy-Science Education <br> B.S., Loyola University, Chicago; Ph.D., University of Notre Dame. | Biological Sciences <br> B.A., University of Massachusetts, Amherst; M.S., Oberlin College; Ph.D., Albert Einstein College of Medicine. |


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| :---: | :---: |
| En | Art |
| B.A., University of California, Los Angeles; M.A, California State University, Long Beach; | B.A., University of the Pacific; M.A., M.F.A., San Jose State University. |
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| Knipe, Alan (1996) ................................................... Head Coach |  |
| Men's Volleyb | BEng., University of North London; Ph.D., University of London. |
| B.A., California State University, Long Beach. | Kwon, Chuhee (1999) ................................ Associate Professor |
| Knudson, Ruth E. (1995) .......................................... Professor | Physics and Astronomy |
| Teacher Education <br> A.B., Bryn Mawr College; M.S., University of Wisconsin; Ph.D., University of California, | B.S., Seoul National University, Korea; M.S., Pohang Institute of Science and Technology, Korea; Ph.D., University of Maryland at College Park. |
| Riverside. | Lacey, John M. (1989) ............................................... Pr. |
| Kochan, Roman V. (1969)................................................. D | Accountancy |
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| .Librarian | Lacey, Kathleen A. (2000).......................................... Professor |
| B.A., M.A., University of Manitoba; M.L.S., University | Co |
| Komisaruk, Catherine H. (2001) .................. Assistant Professor | B.A., San Diego State University; M.B.A., J.D., University of Southern California. |
| History | Lacourse, Michael G. (1990) ............................. Associate Dean |
| B.A., Harvard University; M.A., Ph.D., University of California, Los Angel | College of Health and Human Services |
| Koob, Jeffrey J. (2001) .............................. Associate Profes | r |
| Social Work <br> B.S., University of Wisconsin, Oshkosh; M.S., University of Wisconsin, Milwaukee; Ph.D., Marquette University. | Kinesiology <br> B.S., Springfield College, Massachusetts; M.S., Ph.D., Indiana University, Bloomington. <br> Lam, Brian T. (2003) $\qquad$ Assistant Professor |
| Korogodsky, Danila Z. (1996) .................... Associate Professor | Social Work |
| Theatre Arts M.F.A., Leningrad Institute of Thea | B.A., California State University, Fullerton; M.S.W., California State University, Long Beach; Ph.D., Columbia University, NY. |
| Korosteleva, Olga (2002)........................... Assistant Professor | Lam, Shui F. (1985) ................................................ Professor |
| Mathematics and Statistics <br> B.S., Wayne State University, Detroit; M.S., Ph.D., Purdue University | Computer Engineering and Computer Science B.S., Chinese University of Hong Kong; M.S., Ph.D., Pennsylvania State University. |
| Korostoff, Marilyn (1996) ......................................... Professor | Lamkins, Jennifer (2005) ............................ Assistant Professor |
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| Koval, James E. (1985) | Landon, Lora R. (2005) .............................. Assistant Professor |
| Family and Consumer Sciences <br> B.S., Creighton University, Nebraska; M.S., Texas Technological University; Ph.D., Oregon State University. | Geological Sciences <br> B.A., Pomona College, Claremont, CA; Ph.D., University of Minnesota, Twin Cities. <br> Lane, Brian A. (2002) $\qquad$ Assistant Professor |
| Krause, Marina C. (1968) ........................................... Professor | Film and Electronic Arts |
| Teacher Education <br> B.A., University of Arizona; M.A., Ed.D., Arizona State University. | B.A., University of California, Los Angeles; M.F.A., University of California, Los Angeles; J.D., University of Southern California. |
| Krawietz, Paul J. (2002)............................. Assistant Professor | Laris, Paul S. (2002).................................. Assistant Professor |
| Kinesiology <br> B.S., Texas Tech University; M.A., Eastern Kentucky University, Richmond; Ed.D., Texas A\&M University. | Geography <br> B.S., University of California, Los Angeles; M.S., San Jose State University; M.A., Ph.D., Clark University. |
| Kress, Jeffrey L. (2001) .............................. Assistant Professor | Larson, Daniel O. (1988) ......................................... Professor |
| Kinesiology <br> B.S., M.S., California State University, Fullerton; Ph.D., University | Anthropology <br> B.A., M.A., University of Nevada, Las Vegas; Ph.D., University of California, Santa Barbara. |
| Kreysa, Peter G. (2002) | Lau, Beth (1990)...................................................... Profess |
| Professional Studies <br> B.S., M.A., University of Maryland, College Park; Ph.D., University of Southern California. | English <br> B.A., M.A., Ph.D., University of Illinois, Urbana. |
| Krumpak, Thomas J. (1986) ..................................... Professor | Lauda, Donald P. (1983) ........................................ Professor |
| Art <br> B.F.A., San Francisco Art Institute; M.F.A., California State University, Long Beach | Professional Studies <br> B.A., M.S., Wayne State College; Ph.D., Iowa State University. Emeritus 2002. |
| Kukalis, Salah M. (1986) ........................................ Professor | Lavay, Barry (1989) .................................. Associate Professor |
| Management/Human Resources Management <br> B.S., M.B.A., The American University, Cairo; Ph.D., University of Arizona. | Kinesiology <br> B.S., Plymouth State College; M.S., Eastern Illinois University; Ph.D., University of New Mexico. |
| Kumar, Rajendra (1983) ......................................... Pr. Professor | Lax, Melvin (1977) .................................................. Professor |
| B. Tech., M. Tech., Indian Institute of Technology; Ph.D., University of Newcastle, Australia. | Mathematics and Statistics <br> B.S., M.S., Ph.D., Rensselaer Polytechnic Institute. |
| Kumpf, Lorraine E. (1987) ........................................ Professor | Lazarowitz, Arlene (2004).......................... Associate Professor |
| Linguistics <br> B.A., Syracuse University; M.A., University of Colorado, Boulder; Ph.D., University of California, Los Angeles. | History <br> B.A., M.A., California State University, Long Beach; Ph.D., University of California, Los Angeles. |
| Kumrow, David E. (2000)............................ Assistant Professor | Le, Phi Loan M. (1998)..........................................Psychologist |
| Nursing B.Sc., Gannon University, Erie, Pennsylvania; B.S.N., Niagara University, Niagara Falls, | Counseling and Psychological Services <br> B.S., University of California, Los Angeles; M.S., Psy.D., Nova University. |
| New York; M.S.N., State University of New York, Buffalo; Ed.D., University of Southern California. | Le, Son V. (1986) .................................................. Professor |
|  | Finance <br> B.S., M.S., Ph.D., Iowa State University. |


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| :---: | :---: |
| Kinesiology <br> B.S., Florida State University; M.A., University of California, Santa Barbara. Emerita 2002 | Anthropology <br> B.S., M.A., University of Wisconsin, Madison; Ph.D., University of Washington, Seattle, |
| Lee, Cheryl D. (2000) ................................Assistant Professor | Littlejohn, Alice C. (1986) .....................................Librarian |
| Social Work <br> B.A., George Washington University; M.S.W., Arizona State University; Ph.D., Arizona State University. | B.A., American International College; M.B.A., Syracuse University; M.S., Drexel University. <br> Liu, Dar-Biau (1986) $\qquad$ Professor |
| Lee, Chia-Hsiu Sophie (1998) ................................... Professor | Computer Engineering and Computer Science <br> B.S., Taiwan Normal University; M.A., Wayne State University; Ph.D., University of |
| B.S., National Chiao-Tung University, Taiwan; M.B.A., Ph.D., University of Texas at Austin. | Liu, Jing (1992) .....................................................Professor |
| Lee, Christopher T. (2000).......................................... Professor | Physic/Astronomy B.S., Zhongshan U |
| B.S., Northern Arizona State University, Flagstaff; M.A., California State University, Fullerton; Ph.D., University of Arizona. | Liu, Ping (1999)...................................... Associate Professor |
| Lee, Diane W. (1999)................................. Associate Professor | Teacher Education <br> B.A., Qufu Teachers University, China; M.A., University of International Relations, China; |
| Psychology <br> B.A., California State University, Long Beach; Ph.D., University of California, Berkeley | Ph.D., Texas A\&M University. |
| Lee, Jacqueline D. (1989) ......................... Associate Professor |  |
| Family and Consumer Sciences B.A., San Diego State University; M.S., Californ | B.A., Central University of Finance and Banking, Beijing; M.A., California State University, Long Beach; Ph.D., University of California, Berkeley. |
| University of California, Los Angeles. | Livingstone, Robert............................................. Head Coach |
| Lee-Fruman, Kay K. (1999) ......................... Associate Professor | Men's Golf. |
| Biological Sciences <br> B.A., University of California, Berkeley; Ph.D., Harvard University. | B.S., California State University, Long Beach. |
| Leinbach, Oliver C. (1996) ........................................ Professor | Electrical Engineering |
| Design <br> B.F.A., Ohio University, Athens; M.A., The Ohio State University, Columbus; M.B.A., Capital University, Columbus; J.D., University of Toledo. | B.S., M.S., Technical University of Warsaw, Poland; Ph.D., Technical University of Vienna, Austria. |
| Leiter, William M. (1966) ....................................... Professor | En |
| Political Science <br> B.A., University of Massachusetts; M.A., Ph.D., Univers | B.A., St. John Fisher College, Rochester, New York; M.A., Ph.D., University of Arizona Emeritus, 2003. |
| LeMaster, Barbara C. (1997) .................................... Professo | Loeschen, Robert L. (1969) ......................... Associate Dean |
| Anthropology/Linguistics <br> B.A., University of California, Berkeley; M.A., Ph.D., University of California, Los Angeles. | College of Natural Sciences and Mathematics |
| Leonardo, Zeus M. (2000) ........................... Associate Professor | Chemistry and Biochemistry |
| Educational Psychology, Administration, and Counseling B.A., Ph.D., University of California, Los Angeles. | B.S., University of Illinois; Ph.D., University of Chicago. |
| Leung, Alfred F. (1989) ............................................Professor | jes |
| Physics and Astronomy B.A. M.S., Ph.D., University of C | B.A., Bethel College; M.A., University of Kansas; Ph.D., Michigan State University. |
| Levine, Arthur M. (1974) ........................................ Professor | stry and Biochemistry |
| College of Business Administration B.A., Princeton University; L.L.B., Yale University, | B.S., California State University, Los Angeles; M.S., Ph.D., University of California, San Diego. |
| Lewis, Trinidad J. (2003) ...........................Assistant Professor | Lopez, Rebecca A. (1990) ........................................ Professor |
| Teacher Education <br> B.A., University of California, Los Angeles; M.Ed., Bridgewater State College, MA; Ed.D., Boston University, MA. | Social Work <br> B.A., University of California, Santa Cruz; M.S.W. and Ph.D., Brandeis University. <br> Lopez-Zetina, Javier (2000) |
| Li, Jianfeng (2003) ....................................... Assistant Professor |  |
| Physics and Astronomy B.S., Changsha Institute of Te | B.A., University of Veracruz, Veracruz, Mexico; M.A., University of Houston; Ph.D University of Texas, Houston. |
| Western Reserve University. | Lord, Carol (1999).................................... Associate Professor |
| Li, Lijuan (1998) .................................................... Professor |  |
| Chemistry and Biochemistry <br> B.Sc., Jilin University, P.R. China; Ms.Sc./Ph.D., Jilin University, P.R. China; Ph.D., <br> McMaster University, Hamilton, Ontario, Canada. | B.A., M.A., Stanford University; Ph.D., University of California, Los Angeles. <br> Lovorn, Michael (2005) $\qquad$ Assistant Professor |
| Li, Xin (2001) ......................................................... Professor | acher Education |
| Teacher Education B.A., Southwest China Teacher's University; M.A., Ph.D., University of Toronto. | Knoxville. |
| Liang, Xiaoping (2000) .............................. Associate Professor | Biological Sciences |
| Linguistics <br> B.A., Nanjing University, Nanjing, China; M.A., Exeter University, Exeter, United Kingdom; Ph.D., University of British Columbia, Vancouver, Canada. | B.A., Barrington College; M.S., California State University, Long Beach; Ph.D., University of Hawaii, Manoa. |
| Lichty, Margaret E. (2000) .......................... Assistant Professor | Religious Studie |
| Family and Consumer Sciences <br> B.S., M.S., University of Nebraska, Lincoln; Ph.D., Virginia Tech | A.B., University of California, Riverside; Ph.D., University of Southern California. Lu, Bei (2005) ................................... Assistant Professor |
| Lindsay, Cecile (2004) $\qquad$ Associate Vice President Academic Affairs, Graduate and Undergraduate Programs | Mechanical and Aerospace Engineering <br> B.S., M.S., Shanghai Jiatong University, China; Ph.D., North Carolina State University. |
| fe | Luévano, Susan C. (1995) ..........................................Librarian |
| California State University, Fulle | University Library ${ }_{\text {B.A., Caliornia State College, Stanislaus; M.L.S., University of Oregon. }}$ |


| Ma, Yulong (1997) $\qquad$ Associate Professor | Margulies, William G. (1969) ................................. Professor |
| :---: | :---: |
| Finance | Mathematics and Statistics |
| B.S., Xi'an University of Electronic Science and Technology, China; M.B.A., University of | B.S., State University College, Long Island; M.A., Ph.D., Brandeis University. |
| Hawaii; Ph.D., University of Houston. | Maricich, Tom J. (1975) ........................................ Professor |
| MacDonald, Kevin B. (1985) ................................... Professor | Chemistry and Biochen |
|  | B.S., University of Washington; M.S., Ph.D., Yale University. |
| B.A., University of Wisconsin, Madison; M.S., Ph.D., Univers | Marikos, Rhonda (1976) ............................................. Director |
| MacDonald, Susan Peck (1999)................. Associate Professor | Isabel Patterson Child Development C |
| English | B.A., California State University, Long Beach. |
| B.A., Uni | Marinez, Eric R. (2003) .............................. Assistant Professor |
| Macias, Elena (1997).........................................Assistant Vice | Ch |
| Governmental and Community Relations Administration and Finance | B.S., M.S., California State University, Los Angeles; Ph.D., University of Southern California |
| Professo | Marsh, Anthony (1989) ........................................... Professor |
| Social Work |  |
| B.A., Sacramento State College; M.S.W., | B.F.A., California State University, Long Beach; M.F.A., Alfred Univers |
| University. | Marshall, Suzanne G. (1999)...................... Associate Professor |
| Madding, Carolyn Conway (1989) ............................. Professor | Family and Consumer Sciences |
| Communication Disorders B.S., Ohio State University; | B.S.H.E., University of Georgia; M.S., Oklahoma State University; M.A., Ph.D., University of California, Los Angeles. |
| Graduate University. | Martin, Claire E. (1988) ......................................... Professor |
| Magaddino, Joseph P. (1973) .................................. Professor |  |
| Economics | B.A., M.A., University of Massachusetts, Amherst; Ph.D., Yale Universiy |
| B.A., Canisius College, New York; M.A., University of Connecticut; Ph.D., Virginia Polytechnic Institute and State University. | Martin, Edward (2005) ............................... Assistant Professor |
| Magyar, T. Michelle (2005) ......................... Assistant Professor | Public Policy and Administration <br> B.A., Loyola Marymount University; M.A., University of San Francisco; Ph.D., Arizona |
| Kinesiology and Physical Education | State University. |
| B.A., University of California, Berkeley; M.S., Purdue University, West Lafayette, Indiana; Ph.D., Michigan State University. | Martin, Ingrid M. (2001) .............................. Associate Professor |
| Mahapatra, Sitikantha (1983) ................................. Professor | Marketing <br> B.S., University of New Mexico; M.S., Michigan State University; Ph.D., University of |
| Accountancy | Californ |
| B.S., Regional Engineering College, India; M.B.A., Indian Institute of Management, India; Ph.D., Case Western Reserve University. | Martin, Wade E. (2002) ............................................. Professor |
| Mahoney, Michael K. (1980) ................................................ Dean | Economics <br> B.S., Southern Oregon State College; Ph.D., University of New Mexico, Albuquerque. |
| College of Engineering | Martin-Dunlop, Catherine (2005) ................ AssistantProfessor |
| Professor | Science Education / Liberal Studies |
| Computer Engineering and Computer Science B.A., M.A., Ph.D., University of California, Santa Barbara. | B.Ed., Simon Fraser University, Burnaby, B.C. Canada; M.S., University of Southern California, Los Angeles; Ph.D., Curtin University of Technology, Perth, Western Australia. |
| Mai, Larry L. (2000).................................. Associate Professor | Martinez, Larry F. (1989)........................... Associate Professor |
| Anthropology <br> B.A., M.A., Ph.D., University of California, Los Angeles. | Political Science <br> B.A., M.A., Ph.D., University of California, Santa Barbara. |
| Malcomber, Simon (2006) ......................... Assistant Professor | Marykwas, Donna L. (2001)....................... Assistant Professor |
| Biological Sciences <br> B.S., University of Reading, United Kingdom; Ph.D., Washington University, Missouri. | Biological Sciences <br> B.A., University of Pennsylvania; Ph.D., Cornell University. |
| Maltz, Carl (1986) ................................................Professor | Masanet, Geoff (1992) ...................................Assistant Coach |
| Computer Engineering and Computer Science B.S., California Institute of Technology; M.S., Ph | Men's and Women's Track and Field/Cross Country <br> B.A., Eastern Illinois University; M.S., U.S. Sports Academy. |
| Emeritus 2002. | Mason, Andrew Z. (1989) .........................................Professor |
| Malotte, C. Kevin (1999) ............................................... Professor |  |
|  | B.S., Ph.D., University of Wales. |
| B.A., Chapman College; M.A., Claremont Graduate School; Dr.P.H., University of California, Los Angeles. | Masunaga, Hiromi (2002) .......................... Assistant Professor |
| Manarino, Peter (1984) ......................................... Head Coach | Educational Psychology, Administration, and Counseling <br> B.A., Saitama University, Japan; M.S., Ph.D., University of Southern California. |
| Women's Softball. <br> B.S. California State University, Fullerton. | Mathieu, Susan I. (2002)........................... Assistant Professor |
| Mandel, Whitney S. (1989) ...................................... Professor | Recreation and Leisure Studies <br> B.S., M.S., California State University, Long Beach; Ed.D., University of La Verne. |
| Journalism <br> B.A., M.A., and PhD., University of Tennessee, Knoxville. Emerita, 2003. | Matkin, Ralph E. (1987) ........................................... Professor |
| Mangir, Tulin E. (1994) ...........................................Professor | Educational Psychology, Administration and Counseling <br> B.A., Kansas Wesleyan University; M.Ed., University of Missouri, Columbia; Ph.D. |
| Electrical Engineering M.S., University of Southern California; B.S., Ph.D., University of California, Los Angeles. | Southern Illinois University, Carbondale. <br> Matthews, Justus F. (1971) |
| Manke, Beth (2002).................................. Associate Professor |  |
| Human Development <br> B.S., University of Arizona; M.S., Ph.D., Pennsylvania State University | B.A., M.A., California State University, Northridge; Ph.D., State University of New York, Buffalo. |
| Manley, Steven L. (1988) ........................................Professor | Maxfield, Lisa M. (1995) ........................... Associate Professor |
| Biological Sciences <br> B.A., California State University, Northridge; Ph.D., University of California, Los Angeles. | Psychology <br> B.S., M.S., Ph.D., Syracuse University. |
| Maples, Tracy B. (1992) ........................................ Professor | Mayfield, Tracey L. (1999) ...........................Associate Librarian |
| Computer Engineering and Computer Science <br> B.S. and M.S., University of California, Riverside; Ph.D., University of California, Irvine. | University Library and Learning Resources B.A., M.L.I.S., University of California, Los Angeles |


| McAbee, Douglas (1997) ........................... Associate Professor | Mijares, Ernest R. (1965) ........................................ Professor |
| :---: | :---: |
| Chemistry and Biochemistry B.A., Point Loma College; Ph.D., University of Texas Southwestern Medical School | Mechanical and Aerospace Engineering |
| B.A., Point Loma College; Ph.D., University McCarthy Colleen E. (2003) | B.S., New York University; M.S.M.E., M.S.A.E., University of Southern California. Emerit 2003. |
| Computer Engineering and Computer Science | Miles, Christopher N. (2003) ......................... Assistant Professor |
| B.S., Kent State University; M.S., Ph.D., University of Pitsbu |  |
| McClain, Brian (2005) ............................... Assistant Professor | B.A., University of California, Santa Barbara; M.F.A., University of Southern California. |
| Chemistry and Biochemis | ler, Alan C. (1974) |
| B.S., California State University, Chico | Biological Sciences |
| McCroskey, Lynda L. (1999)....................... Assistant Professor | B.A., Stanford University; M.A., Ph.D., University of Oregon. Emeritus, |
|  | Miller, Julia I. (1988) ............................................ Professor |
| B.A., West Virginia University; M.A., Arizona State University; Ph.D., University of Oklahoma. | Art <br> B.A., Barnard College; M.A., University of Virginia; Ph.D., Columbia University. |
| McDonnell, Timothy (2005) ..............Assistant Baseball Coach | Miller, Kathleen A. (2001) ........................... Assistant Professor |
| Athletic | Mathematics and Statistics |
| B.A., University of California, Irvine. | B.A., Boston College; M.Ed., Towson State University; Ph.D., University of Maryland, College Park. |
| McDonough, Patrick (1997) .................................... Professor |  |
|  | Min, Sungwook (2001).............................. Assistant Profess |
| B.A., Moorhead State University; M.A., University of Kansas; Ph.D., University of Minnesota. | Marketing <br> B.B.A., Korea University; M.B.A., Korea University; Ph.D., Purdue University. |
| McEneaney, Elizabeth (2003).....................Assistant Professor | Ming, Feng-ying (2002)............................. Assistant Professor |
| Sociology <br> B.A. Carleton College, Northfield, MN: M.A., Ph.D., Stanford University. | Asian and Asian American Studies <br> B.A., Tamkang University, Taiwan; M.A., California State University, Los Angeles; M.A., Ph.D., |
| McKay, Valerie C. (1988) ........................................ Professor | University of California, Los Angeles. |
| Communication Studies | Mitchell, Deborah, H. (1994) ................................... Professor |
| B.A., Humboldt State University; M.A., West Virginia University; Ph.D., University of Oklahoma. | Music <br> B.M. Ed., M.M. Ed., Hartt College of Music; D.M.A., University of Southern California. |
| McLain, Susan (1993)............................................. Professor | Miyoshi, Kimiko (2005) .............................Assistant Professor |
| Dance <br> B.A., Herbert H. Lehman College, New York; M.F.A., University of Utah. | Art <br> B.A., California State University, Long Beach; MFA, University of New Mexico. |
| McMahon, Maureen M. (2000)...................................... Professor | Mize, Britt A. (2003) ..................................... Assistant Professor |
| Science Education B.S., University of Maryland | English <br> B.A., Baylor University, Waco; M.A., Ph.D. , University of North Carolina, Chapel Hill. |
| Maryland, College Park. | Mizelle, D. Brett (2001) ..............................Assistant Professor |
| McPherson, Mary Beth (2001) ..................... Assistant Professor | History |
| mmunication Studies | B.A., Georgetown University; M.A., Ph.D., University of Minnesota |
| B.A., M.A., California State University, Long Beach; | Mohamed-Nour, Hassan I. (1988) ......................... Professor |
| Medoff, Marshall H. (1979) ...................................... Professor | Electrical Engineering |
| Economics <br> B.S., Illinois Institute of Technology; M.S., University of Illinois, Champaign; Ph.D. University of California, Berkeley. | B.S., M.S., Assiut University, Egypt; Ph.D., University of Southern California. <br> Mohamed, Olfat S. (1998). $\qquad$ Professor |
| Medora, Nilufer P. (1989) ........................................... Professor | Physical Therapy <br> B.S., M.S., Cairo University; Ph.D., University of Southern California. |
| Family and Consumer Sciences <br> B.A., St. Xavier's College, India; M.S., Maharaja Sayajirao University, India; M.S., University of Arkansas; Ph.D., University of Nebraska. | Moloi, Alosi J.M. (1994) $\qquad$ Professor <br> Black Studies/English |
| Mena, Robert A. (1988)............................................ Professor | B.A., M.A., University of South Africa; Ph.D., University of North, Republic of South Africa. |
| Mathematics and Statistics | Monaco, Kristen (2001) ................................................. Professor <br> Economics |
| Menard-Fulthorp, Carol A. (2001)........................... Coordinato | B.A., Michigan State University; M.A., Ph.D., University of Wisconsin, Milwaukee |
| Partners for Success Student/Faculty Ment | Monat, Jonathan S. (1978) ..................................... Professor |
| B.S., California State Polytechnic University, Pomona; M.S. California State University, Long Beach. | Management/Human Resources Management <br> B.S., University of California, Los Angeles; M.S., San Diego State University; Ph.D., University of Minnesota, Minneapolis. |
| Merryfield, Kent G. (1988) $\qquad$ Professor | Monge, Alvaro E. (1999) .......................................... Professor |
| B.A., Rice University; M.S., Ph.D., University of Chicago. | Computer Engineering and Computer Science |
| Merryfield, Margaret L. (1984) .................................. Professor | B.S., University of California, Riverside; M.S., Ph.D., University of California, San Diego. |
| Chemistry and Biochemistry <br> B.A., Rice University, Texas; Ph.D., University of Wisconsin, Madison. | Moore, William S. (2000) $\qquad$ Assistant Professor <br> Graduate Center for Public Policy and Administration |
| Meyer-Adams, Nancy (2005) ...................... Assistant Professor | B.A., Washington and Jefferson College; M.P.A., The University of Pittsburgh; M.A., Ph.D Syracuse University. |
| Social Work <br> B.S.W., M.S.W., Florida International University, Miami; Ph.D., University of Tennessee. | Moore-Steward, Thelma R. (1996) ............. Associate Professor |
| Meyers, Michael P. (2002)............................Assistant Professor <br> Chemistry and Biochemistry | Educational Psychology, Administration and Counseling <br> B.A., California State University, Dominguez Hills; M.S., Ed.D.,University of Southern California. |
| B.A., Roberts Wesleyan College, Rochester, NY; M.S., University of Rochester; Ph.D., University of Rochester School of Medicine and Dentistry. | Moreno, Jose F. (2004) ............................. Assistant Professor |
| Mezyk, Stephen P. (2001) ........................... Assistant Professor | Chicano and Latino Studies <br> B.A., University of California, Irvine; M.Ed., Ed.D., Harvard University. |
| Chemistry and Biochemistry B.Sc., Ph.D., University of Melbourne | Moreno-Alcaraz, Rosa O. (1998). $\qquad$ Psychologist <br> Counseling and Psychological Services <br> B.A., Loyola Marymount University; M.A., Ph.D., California School of Professional Psychology. |


| Morgin, Kristen L. (2000)............................ Assistant Professor | Newberger, Florence A. (2001) ................... Assistant Professor |
| :---: | :---: |
| Art | Mathematics and Statistics |
| B.A., California State University, Hayward; M.F.A., Alfred University, Alfred, New York. | B.A., B.S., University of California, Santa Cruz; Ph.D., University of Maryland Colleg |
| M | Park |
| Philosophy | Nguyen, Huong Tran (2005)....................... Assistant Professor |
| A.B., Princeton University; Ph.D., R | Teacher Educ |
| Morley, Harvey N. (1989) ............................................. Professor | B.A., San Diego State University; M.A., Point Loma college; Ph.D., University of California, Riverside. |
| Criminal Justice <br> B.S., California State University, Northridge; M.S., Austin Peay State University; M.P.H., California State University, Northridge; Ed.D., University of Alabama. | Nguyen, Lara B. (2002) Assistant Professor <br> Art |
| Morris, Raymond J. (1969).......................................... Director | B.F.A., Columbus College of Art and Design; M.F.A., Southern Illinois University, Carbondale. |
| Physical Therapy Assessment Center | Nguyen, Loc T. (1998)............................... Associate Professor |
|  | Accountancy |
| Physical Therapy B.A., M.A., Californ | B.A., Saigon University; B.A., National Institute of Public Administration; L.L.M., M.B.A., San Diego State University; M.B.A., Fairleigh Dickinson. Emeritus, 2001. |
| University of Southern California; Registered Physical Therapist, California. Emeritus, 2003. | Nguyen, Richard P. (1984) ....................................... Professor |
| Morton, W. Edward (2001)........................................... Director | Civil Engineering and Construction Engineering Management <br> B.S., National Institute of Technology, Taiwan; M.S., Ph.D., University of Missouri-Rolla. |
| Career Development Center <br> B.A., Westmont College; M.A., California State University, Fullerton; Ed.D.; Univeristy of Mississippi. | Nguyen, Thang N. (1999) Assistant Professor <br> Information Systems |
| Moshirvaziri, Khosrow (1990)................................... Professor | B.S., Lavel University, Quebec; M.S., Georgia Institute of Technology; Ph.D., George Mason University. |
| Information Systems <br> B.S., Arya Mehr Technical University, Iran; M.S., Stanford University; Ph.D., University of California, Los Angeles. | Nguyen, Thinh V. (1986) $\qquad$ Professor <br> Computer Engineering and Computer Science |
| Müller, Markus E. (2001)............................. Assistant Professor | B.S., Ph.D., University of California, Irvine; M.S., University of Southern California. |
| Romance, German, Russian Languages and Literatures | Nguyen-Lam, Kim-Oanh (1994) ................. Associate Director |
| B.A., University of Tübingen; M.A., University of Kansas; Ph.D., University of California, Los Angeles. | Center for Language - Minority Education and Research <br> B.A., California State University, Long Beach; M.A., Pepperdine University; M.A., United |
| Mulligan, William A. (1986) .................................... Professor | States International University; Ph.D., California Institute of Integrated Studies. |
| Jo | Nicholls, Walter J. (2004) ........................ Assistant Professor |
| B.S., Brescia College Missouri, Columbia. | Sociology <br> B.S., University of California, Santa Cruz; M.S., Ph.D., University of California, Los |
| Mullins, Ruth G. (1973) ........................................... Profes | Angeles. |
| Nursing | Nielsen, Douglas R. (2000)......................... Associate Professor |
| B.S.N., California State University, Long Beach; M.S.N., University of California, Los | Dance |
| Angeles; Ph.D., Columbia Pacific University. Emerita, 2005. | B.A.,Augsburg College, Minneapolis, Minnesota. |
| Murdock, Caitlin E. (2003).......................... Assistant Profes | Nishio, Alan T. (1972) ..................... Associate Vice President |
| History | Student Services |
| B.A., Swarth | B.A., University of California, Berkeley; M.P.A., University of Southern California. |
| University. | Noble, Charles (1987) .............................................. Professor |
| Murgolo, Frank D. (2003)............................ Associate Professor | Political Science |
| Computer Engineering and Computer Science <br> B.A., California State University, Fullerton; M.S., Ph.D., University of California, Irvine. | B.A., Cornell University; M.A., University of California, Los Angeles; Ph.D., University of California, Berkeley. |
| Murray, William L. (2001)............................ Assistant Professor | Noguera, Norma A. (2001)......................... Associate Professor |
| Mathematics and Statistics <br> B.S., Georgetown University; Ph.D., University of California, Berkeley. | Mathematics and Statistics <br> B.A., Universidad Nacional, Heredia; M.Ed., Ph.D., Ohio University. |
| Nagel, Greta K. (1999) ............................................... Professor | Nolan, Lawrence P. (1997)......................... Associate Professor |
| Teacher Educati | Philosophy |
| A.B., Knox College; M.S. | B.A., M.A., Ph.D., University of California, Irvine. |
| Graduate School. | Nou, Leakhena (2005) ............................... Assistant Professor |
| Naimpally, Ashok V. (1978) .................................. Professor | Sociology |
| Chemical Engineering <br> B.S., Indiana Institute of Technology; M.S., Ph.D., Syracuse University. | B.A., California State University,Fullerton; M.A., University of Hawaii at Manoa; M.S.W. Columbia University, NYPh.D., University of Hawaii at Manoa. |
| Nakai, Karen Kawai (1999) | O'Connor, Daniel (1999) ............................. Associate Professor |
| Educational Psychology, Administration and Counseling <br> B.A., M.S., University of California, Los Angeles; Ed.D., Pepperdine University. | Political Science/Liberal Studies <br> B.A., University of California, Berkeley; M.A., Ph.D., University of California, Los Angeles. |
| Nakayama, Kensaku (1987) .................... Associate Professor | O'Donnell, Julie A. (1994) ....................................... Professor |
| Chemistry and Biochemistry <br> B.S., Ph.D., University of California, Los Angeles. | Social Work <br> B.A., University of Wyoming; M.A., Eastern Washington College; Ph.D., University of Washington. |
| Civil Engineering and Construction Engineering Management B.S., M.S., California State University, Long Beach. | O'Gorman, Hugh (2002) $\qquad$ Assistant Professor <br> Theatre Arts |
| Neff, Hector (2002)................................................... Professor | B.A., Cornell University; M.F.A., University of Washington, Seattle. |
| Anthropology | Ohalete, Nnenna (2004).............................. Assistant Professor |
| A.B., Stanford University; M.A., Ph.D., University of California, Santa Barbara. | Nursing |
| Nelms, Barbara J. (1974) ........................................... Professor | B.S.N., M.S.N., California State University, Long Beach. |
| Nursing | O'Hara, Linda A. (2001) .............................. Assistant Professor |
| B.S.N., University of Iowa; M.N., Ph.D., University of California, Los Angeles. B.A., Rutgers University; M.S., Ph.D., University of Miami. | Management/Human Resources Management <br> B.S., Villanova University; M.B.A., Harvard University; M.S., Yale University; M. Phil., Yale University; Ph.D., Yale University. |


| Ohtmer, Ortwin A. (1986) ........................................ Professor | Perez, Manuel (2005) ................................................... Director |
| :---: | :---: |
| Mechanical and Aerospace Engineerin | Career Development Center |
| Dr.-Ing., Technical University of Braunschweig, West Germany. | B.A., San Jose State University; M.A., San Jose State University |
| Oishi, Eve B. (1997) ................................... Associate Profe | Perez y Perez, Leonardo (1980)................................. Professor |
| Women's Studies <br> B.A., Swarthmore College; M.A., Ph.D., Rutgers University | Mechanical and Aerospace Engineering <br> B.S., M.S., Ph.D., University of California, Berkeley. |
| O'Lawrence, Henry (2001).......................... | Pernet, Bruno (2004) .................................. Assistant Professor |
| Professional Studies <br> B.S., Winston-Salem State University; M.S., University of North Carolina at Greensboro; <br> Ph.D., Pennsylvania State University. | Biological Sciences <br> B.A., University of California, Santa Cruz; Ph.D., University of Washington, Seattle. |
| Olin, Stanley (1976) .................................................... Director |  |
| Housing and Residential Life B.A., Washington State Universi | B.S., M.Ed., Slippery Rock University; Ed.D., Teachers College, Columbia University. |
| Oliver, John (1988) ..................................................... Professor | Kinesiology |
| Social | B.A., M.A., Ph.D., Arizona State University, Tempe. |
| B.A., California State University, Los Angeles; M.S.W., University of California, Los Angeles; Ph.D., Brandeis University. | Petrucci, Carrie J. (2002)........................... Assistant Professor |
| Oliver, Nancy Rainville (1988) .................. Associate Professor | Social Work <br> B.A., M.S.W., Ph.D., University of California, Los Angeles. |
| Nursing <br> B.S.N., Alverno College; M.S., University of Wisconsin, Milwaukee; Ph.D., New York University. | Philipose, Elizabeth (2002) Assistant Professor <br> Women's Studies |
| Ortiz, Anna M. (2003) | B.A., University of Victoria; M.A., York University; Ph.D., York University, Toronto. |
| Educational Psychology, Administration, and Counseling | Piane, Gina (2001)..................................... Associate Professor |
| B.S., University of California, Davis; M.A. The Ohio State University, Columbus; Ph.D., University of California, Los Angeles. | Health Science <br> B.A., M.P.H., D.P.H., University of Illinois at Chicago. |
| Ostrowski, John W. (1988) | Piar, Carlos (1990) .................................................. Professor |
| Public Policy and Administration <br> B.A., Youngstown State University; M.A., Ph.D., Kent | Religious Studies <br> B.S., Biola College; M.Div., Th.M., Talbot Theological Seminary; Ph.D., University of Southern California. |
| Ottolia, Dorothy J. (2001)............................. Assistant Professo | Pickett, Galen T. (1999).............................. Associate Professor |
| B.F.A., California State University, Long Beach; M.Arch., California Polytechnic State University, Pomona. | Physics and Astronomy <br> B.S., Massachusetts Institute of Technology; Ph.D., University of Chicago. |
| Papp, Zoltan (2003).................................. Associate Professo | Pinkney-Pastrana, Jill (2001)..................... Associate Professor |
| Physics and Astronomy <br> M.S., Ph.D., University of Debrecon, Hungary. | Educational Psychology, Administration, and Counseling B.A., M.A., M.Ed, Ph.D., University of California, Los Angeles. |
| Paquette, Catha (2003)............................... Assistant Professor | Platt, Susan (1997) ...................................................... Director |
| Art <br> B.A., Wheaton College, MA; M.A., Ph.D., University of California, Santa Barbara. <br> Para, Donald J. (1988) $\qquad$ | Testing and Evaluation Services <br> B.A., Radford College; M.A., University of Southern California; Ph.D., University of California, Los Angeles. |
| College of the Arts | Plax, Timothy G. (1987) ......................................... Professor |
| Music | Communication Studies <br> B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California. |
| B.M., M | Plecnik, Joseph M. (1985) ....................................... Professor |
| Parentela, Emelinda M. (1996) ................... Associate Professor | Civil Engineering and Construction Engineering Management |
| Civil Engineering and Construction Engineering Management | B.E., Youngstown State University; M.S., Ph.D., Ohio State University. |
| B.S., Luzonian University Foundation, Philippines; M.S., Ph.D., University of Nevada, Las Vegas. | Po, Henry N. (1968) ................................................ Professor |
| Parker, Douglas A. (1968) ......................................... Professor | Chemistry and Biochemistry <br> B.S., Mapua Institute of Technology, Manila, Philippines; M.S., University of Wisconsin; |
| Sociology | Ph.D., University of California, Davis. Emeritus, 2003. |
| B.A., San Francisco State University; M.A., Ph.D., University of California, Berkeley. Emeritus, 2005. | Polakoff, Keith I. (1969)............................................. P. Professor |
| Pastrana, David E. (1973).......................................... Professo | History <br> B.A., Clark University; M.A., Ph.D., Northwestern University. Emeritus, 2004. |
| College of Business Administration <br> B.A., California State University, Los Angeles; J.D., University of California Berkeley. Emeritus, 2004. | Porinchu, David F. (2003)........................... Assistant Professor |
| Pattnaik, Jyotsna (2000) Professor | Geography <br> B.S., McMaster University, Hamilton, Ontario, Canada; M.S., University of New Brunswick, |
| M.Ed., Dr. Parsuram Institute of Advanced Studies in Education, Orissa, India; M. Phil., Jamia Millia Islamia University, New Delhi, India; Ph.D., Indiana University of Pennsylvania. | Fredericton, Canada; Ph.D., University of California, Los Angeles, CA. <br> Potts, Joseph P. (1996) $\qquad$ Associate Professor <br> English |
| Pavri, Shireen C. (1999)............................. Associate Professor | B.A., Loras College; M.A., Ph.D., The University of lowa. |
| Educational Psychology, Administration and Counseling <br> B.A., St. Xavier's College, Bombay, India; B.Ed., M.Ed., SNDT Women's University, Bombay, India; M.S., Ed.S., Miami University, Ohio; Ph.D., University of Illinois at UrbanaChampaign. | Potts, Marilyn K. (1989) $\qquad$ Professor <br> Social Work <br> B.S., Purdue University; M.S.W., Indinana University, Indianapolis; Ph.D., Purdue University. |
| Pasztor, Eileen Mayers (1999) ................... Associate Professor | Pounds, Micheal C. (1989) ........................................ Professor |
| Social Work B.A., Stanford University; M.S.W., The Ohio State University; D.S.W., The Catholic | Film and Electronic Arts <br> B.A., University of Maryland, Baltimore; M.A., Ph.D., New York University. |
| University of America, Washington, D.C. | Powell, David C. (2001) ............................. Associate Professor |
|  | Public Policy and Administration <br> B.A., Baldwin-Wallace College; M.A., Ohio University; Ph.D., Miami University. |

Counseling and Psychological Services
B.A., University of California, Los Angeles; M.A., Loyola Marymount University; M.A., Psy. D., California School of Professional Psychology, Alhambra.

Pusavat, Yoko S. (1972)
Professor
Asian and Asian American Studies
B.A., Osaka Women's University, Japan; M.A., California State University, Fresno. Emeritus 2002.
Quam-Wickham, Nancy L. (1994)...................................... Professor
History
B.A., San Francisco State University; M.A., Ph.D., University of California, Berkeley.

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## Anthropology

B.A., Loyola Maramount University; M.A., California State University, Long Beach; Ph.D., University of California, Los Angeles.
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## Psychology

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## Teacher Education <br> B.S., Pennsylvania State University, University Park; M.A., Ph.D., University of Georgia,

 Athens.Rabaka, Reiland (2001) ................................ Associate Professor
Black Studies
B.F.A., University of the Arts; M.A., Ph.D., Temple University.

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Center for Energy and Environmental Research and Services

## Mechanical and Aerospace Engineering

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Rainof, Alexander (1998)
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Romance, German, Russian Languages and Literatures
B.A., Boston University; M.A., Ph.D., University of Michigan-Ann Arbor

Rajpoot, Subhash (1990)............................................... Professor
Physics and Astronomy
B.Sc., Ph.D., Imperial College, London.

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Learning Assistance Center
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Chicano and Latino Studies
B.A., M.A., Rosary College, Illinois; Ph.D., University of California, Los Angeles.

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Social Work
B.S., M.S.W., California State University, Long Beach; Ph.D., University of Southern California.
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Communication Studies
B.A., Dakota Wesleyan; M.A., University of Wyoming; Ph.D., University of Colorado, Boulder.
Reddy, Harnatha C. (1987) ........................................... Professor

## Electrical Engineering

B.E., Sri Venkateswara University, India; M.S., University of Baroda, India; Ph.D., Osmania University, India.
Reddy, Sabine B. (2001) ................................ Assistant Professor
Management/Human Resources Management
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Civil Engineering and Constructon Engineering Management
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B.A., FACLIP, Paris, France; M.A., Universite Laval, Quebec, Canada; M.A., Ph.D.,

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Professor
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B.S., Miami University, Ohio; M.S. and Ph.D., Ohio State University.

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Director
Equity and Diversity
B.A., Tufts University, MA; M.A., University of Massachusetts, Amherst; J.D., Loyola Law School, Los Angeles, CA.
Reis, Raul F. (2000)...................................... Associate Professor
Journalism
B.A.,Universidad Federal do Para, Belem, Brazil; M.S.,Kansas State University,

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Reyes, G. Mitchell (2004) .............................. Assistant Professor
Communication Studies
B.S., Willamette University, Salem, Oregon; M.A.,Ph.D., Pennsylvania State University, University Park.
Reynolds, Larry (1976)............................................... Head Coach
Men's Basketball
B.A., University of California, Riverside; M.E.d., Azusa Pacific University.

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B.S., M.S., Shiraz University, Iran; Ph.D., University of Calgary, Canada.

Rhee, Thomas A. (1988) ................................................. Professor
Finance
B.A., Hankuk University of Foreign Seoul, Korea; M.A., Kent State University; M.A.,

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Rhoads, Thomas J. (1976)
Professor
College of Business Administration
B.S., M.B.A., University of Southern California; J.D., Western State University.

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Assistant Professor
Communication Studies
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Richards, Catherine R. (2004)....................... Assistant Professor
Educational Psychology, Administration, and Counseling
B.A., M.A., University of California, Riverside; Ph.D., University of California, Santa Barbara.
Richesson, Robin A. (2002) ......................... Assistant Professor
Art
B.A., M.F.A., California State University, Long Beach.

Riedel, Kyle (2003).......................................... Assistant Professor
Art
B.S., Portland State University, Oregon; M.F.A., University of Texas, Austin.

Rintoul, Richard R. (2001).
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Music
B.F.A., California Institute of the Arts; M.M., University of Southern California.

Riosellis, Britt K. (1994) ............................. Associate Professor
Health Science
B.A., M.S., Ph.D., University of Oregon.

Riposa, Gerry (1989)
Dean
College of Liberal Arts

Political Science
B.A., Old Dominion University; Ph.D., University of California, Riverside.

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Design
B.F.A., Catholic University; M.A., The Ohio State University.

Roberts, Pamela K. (1989)
Professor
Human Development
B.A., University of California, San Diego; M.A., Notre Dame; M.A., Western Michigan; Ph.D., University of Wisconsin.
Roberts, Sharon L. (1974) ............................................ Professor
Nursing
B.S., M.S., University of California, San Francisco; Ph.D., University of Southern California. Emerita. 2005.
Robinson, Douglas W. (1989) ................................. Vice President
Student Services
B.S., M.S., Iowa State University, Ames; Ph.D. Claremont Graduate University.

Robinson, James C. (1972)
Professor
Black Studies
B.A., M.A., California State University, Long Beach; M.A., Ph.D., Stanford University.

Emeritus, 2003.

| Robinson, Thomas L. (1989) ..................................... Professor | Sample, James C. (1990).......................................... Professor |
| :---: | :---: |
| Mechanical and Aerospace Engineering | Geological Scien |
| B.S., San Jose State University; M.B.A., Pepperdine; Ph.D., Nova Southeastern University. | A.B., Cornell University; Ph.D., University of California, Santa Cruz. |
| Emeritus, 2005. | Samuelson, David N. (1966) ..................................... Professor |
| Rodrigue, Christine M. (1999).................................... Professor | English |
| Geography | B.A., Drew University; Ph.D., University of Southern California. Emeritus 2002. |
| B.A., M.A., California State University, Northridge; Ph.D., Clark University, Worcester, Massachusetts. | Sanchez-H., Jose (1988)............................................ P. Professor |
| Rodriguez, Jose I. (1995) ........................... Associate Professor | Film and Electronic Arts <br> B.A., Universidad Autonoma de Guadalajara, Mexico; M.A., Ph.D., University of Michigan. |
| Communication Studies <br> B.A., M.A., California State University, Long Beach; Ph.D., Michigan State University. | Sandoval, Anna M. (1998) .......................... Associate Professor |
| Rodriguez, Victor M. (2000) ...................... Associate Professor | Chicano and Latino Studies <br> B.A., University of California, Santa Barbar |
| Ch | Cruz. |
| B.A., University of Puerto Rico, Rio Piedras, Puerto Rico; M.A., Ph.D., University of California, Irvine. | Sanfilippo, David (1978)............................................... Director |
| Roe, Mathew (2004) $\qquad$ Assistant Track and Field/ Cross Country Coach | Disabled Student Services B.A., San Jose State University. |
|  | Santhiveeran, Janaki (1999) ...................... Associate Professor |
| M.S., Western Illinois University | Socia |
| Rojas, Maythee G. (2001) ............................ Assistant Professor | B.S., M.S.W., Madurai Kamaraj University, Madurai, India; Ph.D., Barry University, Miami, Florida. |
| Women's Studies <br> B.A., Pomona College; Ph.D., Arizona State | Sauceda, James S. (1988) ............................................ Director |
| Rosenkrantz, Max Langan (2003)................ Assistant Professor | Multicultural Center |
| Philosophy |  |
| B.A., Johns Hopkins University; Ph.D., University of Texas, Austin. Rourke, Bryan C. (2004)............................ Assistant Professor | B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California. |
| Biological Sciences <br> B.S., College of William and Mary, VA; Ph.D., University of Californ | Saunders, Cynthia M. (2000)...................... Assistant Professor |
| Rozee, Patricia D. (1987)............................................... Professor | Health Care Administration Program <br> B.B.A., University of Cinncinati; M.P.H., University of Rochester, Rochester, New York; |
| Psychology/Women's Studies | Ph.D., Columbia University. |
| B.A., California State University, Long Beach; M.A., Ph.D., University of California, | Schefski, Harold K. (1986) ......................................... Professor |
| Rozenek, Ralph (1988) .................................................. Professor | Romance, German, Russian Languages and Literatures |
| Kinesiology | B.A., University of California, Davis; M.A., Ph.D., Stanford University. |
| B.S., M.S., University of California | Schmidt, Ronald J. (1972) ........................................ Professor |
| Rubio, Olga G. (1997) ................................................ Professor | Political Science |
| Teache | B.A., M.A., University of California, Berkeley; Ph.D., University of California, Riverside. |
| B.S., Texas A \& I University; M.S., University of Texas at San Antonio; Ph.D., University of Pennsylvania. | Schrank, Sarah L. (2002)........................... Assistant Professor |
| Rueda, Alfonso (1989) .................................................. Professor | History <br> Baccalaureate de Francais, Lycee Marcelin Berthelot, France; B.A., McGill University, |
| Electrical Engineering | Canada; Ph.D., University of California, San Diego. |
| B.S., M.S., Massachusetts Institute of Technology; M.A., Ph.D., Cornell University. | Schroeder, Jan M. (1999) ........................... Associate Professor |
| Runyon, Lowell R. (1968) ........................................ Professor |  |
| Finance <br> B.S., University of Colorado; M.B.A., D.B.A., University of Southern California | B.A., Chapman College, Orange, California; M.S., California State University, Fullerton; Ph.D., The University of Kansas. |
| Rush, George E. (1973) ......................................... Professor | Schürer, Norbert E. (2003) .......................... Assistant Professor |
| Criminal Justice <br> B.S., M.S., California State University, Long Beach; Ph.D., Claremont Graduate School. Emeritus 2002. | English <br> B.A., Hochschule der Künste, Berlin; M.A., Freie Universität, Berlin; Ph.D., Duke University. |
| Russo, Albert C. (1988) .............................................. Professor | Schwartz, Donald (1987) ........................................ Coordinator |
| Physical Therapy <br> B.S., M.S., Ph.D., Louisiana State University, Baton Rouge. | Secondary Education Single Subject Credential Program College of Liberal Arts |
| Ruwedel, Mark A. (2002) ............................ Assistant Professor | History |
| Art <br> B.F.A., Kutztown University of Pennsylvania; M.F.A., Université Concordia. | B.A., City College of New York; M.A., Indiana University; Ph.D., New York University. Emeritus, 2005. |
| Ruyle, Eugene E. (1976)............................................ Professor | Schwartz, Howard J. (1969) ....................................... Professor |
| Anthropology <br> B.A., University of California, Berkeley; M.A., Yale University; Ph.D., Columbia University. | Mathematics and Statistics <br> B.S., M.S., Ph.D., University of Toledo. Emeritus, 2001. |
| Emeritus 2002. | Schwartz, Morton D. (1970) ....................................... Professor |
| Sachdeva, Darshan (1973)....................................... Professor | Computer Engineering and Computer Science |
| Finance | B.S., M.S., Ph.D., University of California, Los Angeles. Emeritus 2002. |
| B.A., Panjab University; M.S., Florida State University; Ph.D., University of California | Sciortino, Antonella (2004) ........................ Assistant Professor |
| Safer, Alan M. (2000).................................. Associate Professor | Civil Engineering and Construction Engineering Management |
| Mathematics and Statistics | B.S., Politecnico di Bari, Italy; M.S., Ph.D., University of California, Los Angeles. |
| B.S., Syracuse University; M.S., Ohio State University; M.S., Southern Illinois University; Ph.D., University of Wyoming. | Scoates, Christopher J. (2005) ..................................... Director |
| Saint-Germain, Michelle A. (1995) ............................... Professor | University Art Museum <br> B.F.A., University of Florida; M.F.A., Cranbrook Academy of Art. |
| Public Policy and Administration <br> B.A., University of California Berkeley; M.S., M.P.A., California State University, Hayward; Ph.D., University of Southern California. | Scott, George M. (1990). Associate Professor <br> Anthropology |
| Saltzman, William R. (2001) ....................................... Professor | B.A., University of Texas, Austin; M.A., Ph.D., University of California, San Diego. |
| ucational Psychology, Administration, and Counseling A., Ph.D., University of Maryland College Park. |  |



| Speirs, Susanna B. (2004).......................... Assistant Professo | Sun, Dee Bruce (1990) |
| :---: | :---: |
|  | Information Systems |
| B.F.A., Syracuse University, NY; M.F.A., University of Washington, WA. | M.A., The Ohio State University; Ph.D., The University of Texas, Austin. |
| Springer, Arnold R. (1968) ........................................ Pr | Swatek, Cheryl (2001) .....................................Assistant Coach |
| History <br> B.A., Ph.D., University of California, Los Angeles. Emeritus, 2001. | Water Polo <br> B.S., California State University, Long Beach; M.A., National University. |
| Ssensalo, Bede (1977).............................................. Professo | Swigart, Leslie K. (1971) ..........................................Librarian |
| Black Studies <br> B.A., Makerere University, Uganda; M.A., Ph.D., University of California, Los Angeles. | B.A., University of Southern California; M.L.S., University of California, Los Angeles. M.A., California State University, Long Beach. |
| Stanley, M. Sue (1986) ............................... Associate Professo | Sy, Thomas (2002) .................................... Assistant Professor |
| Family and Consumer Sciences <br> B.A., California State University, Chico; M.S., University of Arizona; Ph.D., Oklahoma State University. | Management/Human Resources Management <br> B.A., University of California, Riverside; M.A.,Ph.D., The University of Michigan, Ann Arbor. |
| Stanton, Roger R. (1966) ........................................ Profe | Symcox, Linda S. (2000) ........................... Associate Professor |
| Management/Human Resources Management <br> B.S., San Jose State University; M.B.A., California State University, Long Beach; M.P.A., Harvard University; D.B.A., University of Southern California. | Teacher Education <br> B.A., University of California, Los Angeles; M.A., University of California, Santa Barbara; Ph.D., University of California, Los Angeles. |
| Stanton, Toni L. (1987) .......................................... Professor | Sythe, Andrew (1988) ............................................ Head Coach |
| Biological Sciences/Women's Studies <br> B.S., M.S., University of Maryland; Ph.D., Thomas Jefferson University, Pennsylvania. | Track and Field/Cross Country B.A., San Diego State University. |
| Stefani, Raymond T. (1971)....................................... Professo | Takemoto, Mary Ann M. (2005) .................................... Director |
| Electrical Engineering <br> B.S., Notre Dame University; M.S., Ph.D., University of Arizona. Emeritus, 2004 | Counseling and Psychological Services <br> B.A., Columbia University; Ph.D., Indiana University. |
| Steimetz, Seiji (2005)................................. Assistant Professo | Talberg, Jonathan (2000) ............................ Assistant Professor |
| Economics <br> B.S., M.A., San Jose State University; Ph.D., Unive | Music <br> B.M., Chapman University, Orange, California; M.M., D.M.A., University of Cinncinati. |
| Steigerwald, Diane T. (2001) | Tan, Peng-Hock Philip (2001) .................... Associate Professor |
| Institute for the Study of Judeo-Christian Origins | Social Work <br> B.A., College of Wooster; M.A., M.S.W., Ph.D., The Ohio State University. |
| Religious S | Tang, Paul C. L. (1986) .............................................. Pr. Professor |
| B.S., University of Montreal; M.A., Ph.D., McGill Univers | Philosophy |
| Stein, James D. (1989) ............................................. Professor | B.S., University of British Columbia; M.A., Simon Fraser University, Canada; M.A., Ph.D., Washington University, Missouri. |
| Mathematics and Statistics <br> B.A., Yale; M.A., Ph.D., University of California, Berkeley. | Tartre, Lindsay A. (1985) ......................................... Professor |
| Steiner, Barry H. (1968) .......................................... Professor | Mathematics and Statistics <br> B.A., M.A., San Diego State University; Ph.D., University of Wisconsin, Madison. |
| Political Science <br> B.A., University of Southern California; Ph.D., Columbia University. | Taylor, Linda Tiggs Thomas (1989).............. Executive Director |
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| Politic | B.A., M.B.A., J.D., University of California, Los Angeles. |
| B.S., Brigham Young University; M.A., Ph.D., University of Maryland. Emeritus 2002. Stoltenberg, Clyde (2003) ........................................ Professor | Taylor, Matthew (2001) ............................... Assistant Professor Communication Studies |
| College of Business Administration <br> B.A., University of Iowa; M.A., Columbia University, NY; J.D., Harvard Law School. | B.S., Pacific Lutheran University; M.S., University of Oregon; Ph.D., University of Southern California. |
| Stone, Craig (1994) ................................. Associate Professor | Teng, Robert K. F. (1989) .......................................... Professor |
| American Indian Studies/Art <br> B.A., M.A., M.F.A., California State University, Long Beach. | Electrical Engineering <br> B.S., Mississippi State University; M.S., Ph.D., Purdue. |
| Stone, Jon R. (2004) ................................... Assistant Profes | Teubner, David C. (2005) ........................... Assistant Professor |
| Religious Studies <br> B.A., Jessup University, San Jose, CA; M.A., Pacific Christian College, Fullerton, CA; M.A., Ph.D., University of California, Santa Barbara. | Design <br> B.A., California State University, Long Beach; M.A., California State University, Fullerton. |
| Stone, Joshua (2005).........................Assistant Athletic Trainer |  |
| Athletics <br> M.A., San Jose State University | B.A., University of Redlands; Ph.D., University of Rochester. |
| Strahl, Ronald J. (1986) .......................................... Professor | Theurer, Joan L. (2001) $\qquad$ Assistant Professor <br> Teacher Education |
| English <br> B.A., DePauw University; M.A., Ph.D., Indiana University, Bloomington. | B.S., Concordia Teachers College; M.A., Concordia University; Ph.D., University of Arizona. |
| Straits, William (2005) ............................... Assistant Professor | Thibeault, Marie C. (1989) ........................................ Professor |
| Science Education <br> B.S., University of California, Irvine, CA; M.A., California State University, Fullerton, CA; M.Ed., Ph.D., University of Texas, Austin. | Art <br> B.F.A., Rhode Island School of Design; M.A., San Francisco State University; M.F.A., University of California, Berkeley. |
| Strauss, Judith P. (2000) ............................ Assistant Professor | Thomas, Cher C. (1982) ............................................ Professor |
| Management/Human Resources Management B.A., Ph.D., University of lowa. | Psychology <br> B.A., University of Illinois, Champaign-Urbana; M.A., Ph.D., University of California, Davis. |
| Strybel, Thomas Z. (1987) ....................................... Professor | Till, James A. (1999) ................................................. Professor |
| Psychology <br> B.A., Wayne State University; M.A., California State University, Los Angeles; Ph.D., University of Arizona, Tucson. | Communicative Disorders <br> B.A., M.S., University of Washington; Ph.D., University of Iowa. <br> Timboe, Richard (1978) $\qquad$ Assistant Vice President |
| Suaray, Kagba (2005) ............................... Assistant Professor | Information Technology Services |
| Mathematics and Statistics <br> B.S., California State University, Long Beach; Ph.D., University of California, San Diego. | B.S., United States Military Academy; M. Eng., Boston University; J.D. Western State University, College of Law. |


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| :---: | :---: |
| Asian and Asian American Stud | Dan |
| Los | B.A., California State University, Sacramento; M.F.A., University of California, Los Angeles. |
|  | Vail, Leland S. (1995) ............................... Associate Professor |
| Tolbert, Tracy (2005) .................................. Assistant Professor |  |
| Criminal Justice <br> B.A., Indiana University, South Bend; M.A., Ph.D., University of Southern California | B.M., M.A., California State University, Long Beach; D.M.A., Claremont Graduate School. |
| Toma, Ramses B. (1984) ..................................... Professor |  |
| Family and Consumer Scienc | D., Ohio State Unive |
| B.S., M.S., Ain Shams University, Egypt; M.P.H., University of Minnesota, Minneapo Ph.D., Louisiana State University, Baton Rouge. | Valerio-Jimenez, Omar (2002)................... Assistant Professor |
| Toossi, Reza (1991) .............................................. Professor | History <br> B.S. (2), Massachusetts Ins |
| Mechanical and Aerospace Engineering | M.A., Ph.D., University of California, Los Angeles. |
| University of Technology, Iran; M.S., Ph | Van Camp, Julie (1990).......................................... Professor |
| Torabzadeh, Jalal (1986) ....................................... Professor |  |
| Mechanical and Aerospace Engineering B.S., Abadan Institute of Technology, Iran; | A.B., Mount Holyoke College; J.D., Georgetown University; Ph.D., Temple University. |
| Torby, Bruce J. (1961) ..........................................Professor |  |
| Mechanical and Aerospace Engineering | M.A., University of Amsterdam; M.A., Ph.D., Rice University. |
| B.M.E., City College of New York; M.S., University of California, Los Angeles; Ph.D. University of Southern California. Emeritus, 2000. | Van Giffen, Katherine (1987)....................... Associate Professor |
| Torres, Sam M. (1995) ............................................ Professor | Human Development/Educational Psychology, Administration and Counseling B.A., University of Puget Sound, Washington; M.A., Ph.D., University of Denver. |
| Criminal Justic B.A., Californ | van Lent, Colleen E. (2005)....................... Associate Professor |
| Gradua | Computer Engineering and Computer Science |
| Tortorici-Luna, Joanne (2000) ................... Associate Professor | versity Honor College; N |
| Educational Psychology, Administration, and Counseling | Velcic, Vlatka (2001) ................................. Associate Professor |
| B.A., California State University, Los Angeles; M.A., University of California, Los Angeles; Ph.D., University of Southern California. | Comparative World Literature and Classics <br> B.A., University of Zagreb; M.A., Ph.D., University of California, Los Angeles. |
| Travis, Tiffini A. (1999)...............................Associate Librarian | Viera, Maria L. (1989) ..............................................Professor |
| University Library and Learning Resources | B |
| B.A., University of Californi, Berkeley; M.L..IS., University of California, Los Angeles. | B.A., University of Illinois, Chicago; M.A., Sangamon State University; Ph.D., University of Southern California. |
| Tsai, Chan-Feng (1982) ...................................... Professo |  |
| Civil Engineering and Construction Engineering Management ${ }_{\text {B }}$ Cheng Kung University Taiwan: M S University of Rhode Island, Kingston: Ph, |  |
| B.S., Cheng Kung University, Taiwan; M.S., University of Rhode Island, Kingston; Ph.D., University of California, Berkeley. | Mathematics and Statistics <br> B.S., University of Minnesota; Ph.D., University of California, Berkeley. |
| Tsai, Shirley C. (1983) .............................................Professor | Vipond, Dianne L. (1988)......................................... Professor |
| Chemical Engineering | English |
| B.S., National Taiwan University; Ph.D., California Institute of Technolog. | B.S., McGill University, Montreal; M.A., Concordia University, Montre |
| Tsang, Chit-Sang (1988)..........................................Professor | To |
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[^0]:    351B. Applications of Architectural/Interior Lighting Design (3)
    Prerequisites: DESN 246, 351A, or 256.
    Exploration of major categories of applications (e.g., residential, office, etc.) specific principles, conventions, codes that apply to them as well as the basic use of lighting equipment common to these applications.
    Letter grade only (A-F).

[^1]:    499. Environmental Science and Policy Directed Study (1-6)
    Prerequisite: Consent of instructor.
    Independent study under the supervision of a faculty member.
    May be repeated to a maximum of 6 units in different semesters.
[^2]:    *458. Managing Organizational Culture and Cultural Diversity (3)
    Prerequisites: HRM 360 or HRM 361, IS 301.
    Impact of diversity, culture, and ethnic origin on the work experience. Interaction of language, gender, race, tradition, education, economic structure, and organizational philosophy to create a set of rules for acceptable behaviors in complex organizations. Open dialogue, debate, outside research and group presentations.
    Letter grade only (A-F).

[^3]:    201. An Introduction to the Fundamentals of NanoTechnology (3)
    Broad overview of the key areas, applications, and emerging importance of nano-scale science and engineering in today's society. For lower-division students thinking of entering majors like physics, biology, and electrical engineering.
    (Lecture, 3 hrs.) Letter grade only (A-F).
