

NUTRITION AND DIETETICS

College of Health and Human Services
Department of Family and Consumer Sciences

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Career Possibilities

Clinical Dietitian • Private Practice Dietitian • Research Dietitian • School Foodservice Director • Food Products Sales Representative • Food Technologist • Food Service Supervisor • Restaurant Manager • Public Health Nutritionist • Food and Drug Inspector • Public Health and Wellness Educator • Community Nutrition Programs • Health Clubs • Private Consulting • Health and Welfare Agencies • Program Administration • Health Promotion. (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Degrees

Bachelor of Arts in Family and Consumer Sciences

This degree offers six options:

- Child Development and Family Studies
- Consumer Affairs
- Family and Consumer Sciences Education
- Family Life Education
- Fashion Design
- Fashion Merchandising

Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Science in Hospitality Management

Degree and certificate information and 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 Dietetics and Food Administration with two option areas of study:

- Nutrition and Dietetics
- Food Science (suspended)

Degree and certificate information and requirements are listed under each option alphabetically in this *Catalog*.

Requirements for the major include a minimum of 120 units for Nutrition and Dietetics. In addition to general education requirements (48 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

This degree option has two concentrations- Dietetics and Nutritional Science. Students will focus their studies in nutritional science, medical nutrition therapy, community nutrition, food production and management of foodservice operations (Dietetics concentration only), chemistry, physiology, plus a variety of supporting course work in related disciplines.

Dietetics Concentration

The Dietetics Concentration fulfills the Academy of Nutrition and Dietetics (AND) academic requirements for eligibility to apply for qualifying experiences required to become a Registered Dietitian/Nutritionist.

Becoming a Registered Dietitian/ Nutritionist

Registered Dietitians/Nutritionists (RDs/RDNs) are considered food and nutrition experts. They have met the following criteria to earn the RD/RDN credential:

- Completion of a minimum of a bachelor's degree at a U.S. regionally accredited university or college and course work accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), the credentialing agency of the Academy of Nutrition and Dietetics (AND).
- Completion of a supervised practice program accredited by ACEND.
- Passed a national examination administered by the Commission on Dietetic Registration (CDR).

In order to maintain registration, the RD/RDN must provide evidence of fulfilling continuing professional educational requirements to maintain registration. Some RDs/RDNs hold additional certifications in the specialized areas of practice, such as pediatric or renal nutrition, nutrition support, and

diabetes education. These certifications are awarded through CDR and/or other medical and nutrition organizations and are recognized within the profession, but are not required.

In addition to RD/RDN credentialing, many states have regulatory laws for dietitians and nutrition practitioners. Frequently these state requirements are met through the same education and training required to become an RD/RDN.

Alternative pathway- Becoming an NDTR (Nutrition & Dietetic Technician)

Dietetic technicians, registered (DTRs) are educated and trained at the technical level of nutrition and dietetics practice for the delivery of safe, culturally competent, quality food and nutrition services. DTRs are an integral part of healthcare and food service management teams.

DTRs work under the supervision of a registered dietitian nutritionists (RDNs) when in direct patient/client nutrition care in practice areas as:

- **Hospitals, clinics, nursing homes, retirement centers, hospices, home health-care programs and research facilities** conducting patient/client screens, gathering data and performing assigned tasks to assist RDNs in providing medical nutrition therapy.

DTRs may work independently in providing general nutrition education to healthy populations in a variety of settings as:

- **Schools, day-care centers, correctional facilities, restaurants, health-care facilities, corporations and hospitals**, managing employees, purchasing and food preparation and maintaining budgets within foodservice operations.
- **Women, Infants, Children (WIC) programs, public health agencies, Meals on Wheels and community health programs**, assisting registered dietitians with the implementation of programs and presentation of classes for the public.

- **Health clubs, weight management clinics and community wellness centers**, helping to educate clients about the connection between food, fitness and health.

- **Food companies, contract food management companies or food vending and distributing operations** developing menus, conducting nutrient analysis and data collection, and overseeing foodservice sanitation and food safety.

DTRs are nationally credentialed food and nutrition technical practitioners who have met the following criteria to earn and maintain the DTR credential.

"Successful completion of coursework in an ACEND-accredited Didactic Program in Dietetics and completion of at least a bachelor's degree at a U.S. regionally accredited college or university.

After completing the degree and dietetics coursework, successful completion of the Registration Examination for Dietetic Technicians, a national credentialing examination, administered by the Commission on Dietetic Registration (CDR) is required. CDR's DTR certification program is fully accredited by the National Commission for Certifying Agencies (NCCA), the accrediting arm of the Institute for Credentialing Excellence (ICE). Accreditation by the ICE reflects achievement of the highest standards of professional credentialing. For more information regarding DTR credentialing, refer to CDR's website at www.cdnet.org.

Compliance with the CDR Professional Development

Portfolio (PDP): Requirements to maintain DTR registration include 50 hours of continuing education every five years.

Nutritional Science Concentration

The Nutritional Science Concentration focuses on nutrition as part of medical and health issues and is suitable for students wishing to apply for graduate school, medical school or other health-related programs. Students who select the Nutritional Science Concentration as a pre-professional degree should check with the appropriate programs to verify specific requirements.

Option in Nutrition and Dietetics (120 units)

Take all of the following courses:

MATH 113 Precalculus Algebra (3)

* C or better

Prerequisite: Appropriate ELM score, ELM exemption

BIOL 207 Human Physiology (4)

* C or better

Prerequisite: GE Foundation requirements.

CHEM 111A General Chemistry (5)

**C" or better required.

Prerequisite: A passing score on the Chemistry Placement Examination.

Corequisite: MATH 109 or higher.

CHEM 448 Fundamentals of Biological Chemistry (3)

**C" or better required.

Prerequisite: CHEM 220B or CHEM 227 either with a grade of "C" or better.

CHEM 449 Nutritional Biochemistry Laboratory (1)

Prerequisite: CHEM 448 with a grade of "C" or better. Can be taken concurrently with CHEM 448.

BIOL 201 General Microbiology for Health Professionals (4)

Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.

SOC 335 Social Psychology (3)

Prerequisite: Upper division standing.

CAFF 321 (GE) Family and Consumer Resource Management (3)

Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

FCS 299 Introduction to Family & Consumer Sciences (1)

Prerequisites: None.

Not open for credit to students with credit in FCSE 299.

FCS 499 Professionalism and Leadership in Family and Consumer Sciences Professionals (1)

Prerequisites: FCS 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.

Not open for credit to students with credit in FCSE 499.

NUTR 132 Introductory Nutrition (3)

* C or better

Prerequisite/Corequisite: One Foundation course.

NUTR 331 Nutrition through the Life Cycle (3)

Prerequisites: For the Dietetics Concentration BIOL 207, NUTR 132, NUTR 234; For the Nutritional Sciences Concentration BIOL 207, NUTR 132.

NUTR 336 Social and Cultural Aspects of Food and Health (3)

Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

NUTR 436 Advanced Nutrition (3)

Prerequisites/Corequisites: NUTR 331; CHEM 448.

NUTR 335 Nutrition Assessment (2)

Prerequisites: NUTR 331.

NUTR 438A Medical Nutrition Therapy I (3)

Prerequisites: NUTR 335, NUTR 436

NUTR 438B Medical Nutrition Therapy II (3)

Prerequisite: NUTR 438A

Complete one of the following concentration areas:

A. Dietetics Concentration

Take all of the following courses:

CHEM 227 Fundamentals of Organic Chemistry (3)

**C" or better required.

Prerequisite: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

FSCI 332 Food Science (3)

Prerequisites: CHEM 227; HFHM 176; MICR 200 or equivalent.

HFHM 176 Fundamentals of Food Preparation (3)

Prerequisites: None.

HFHM 343 Food Production Systems for Nutrition and Dietetics Professionals (3)

Prerequisites: NUTR 132 and HFHM 176.

HFHM 345 Food Service Operations for Nutrition and Dietetics Professionals (2)

Prerequisites: HFHM 343; California Food Handler's Card valid for at least one year.

HFHM 447 Foodservice Administration for Dietetic and Nutrition Professionals (3)

Prerequisites: HFHM 343.

NUTR 234 Orientation to Dietetics and Food Administration (1)

Prerequisites: Open only to Nutrition and Dietetics majors.

NUTR 334 Nutrition Education (2)

Prerequisites: NUTR 331, SOC 335.

NUTR 437 Nutrition Counseling and Motivational Techniques (2)

Prerequisites: NUTR 334, NUTR 335, NUTR 436.

NUTR 461 Community Nutrition (3)

Prerequisites: NUTR 331, NUTR 334, NUTR 336.

NUTR 498A Senior Seminar for Dietetics I (1)

Prerequisites: NUTR 436.

NUTR 498B Senior Seminar for Dietetics II (1)

Prerequisites: NUTR 498A.

Take one of the following courses:

STAT 108 Statistics for Everyday Life (3)

* C or better required

Prerequisites: None.

BIOL 260 Biostatistics (3)

* C or better required

Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

EDP 419 Educational Statistics (3)

* C or better required

Prerequisites: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower-division statistics course.

PSY 110 Introductory Statistics (4)

* C or better required

Prerequisites: Eligible to take a General Education Mathematics course.

B. Nutritional Science Concentration

Take all of the following classes

BIOL 208 Human Anatomy (4)

Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

CHEM 111B General Chemistry (5)

**C" or better required.

Prerequisite: CHEM 111A with grade of "C" or better.

CHEM 220A Organic Chemistry I (3)

**C" or better required.

Prerequisite: CHEM 111B with a grade of "C" or better. Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

CHEM 220B Organic Chemistry II (3)

**C" or better required.

Prerequisite: CHEM 220A with a grade of "C" or better. Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.

CHEM 223A Organic Chemistry Laboratory I (1)

**C" or better required.

Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.

CHEM 223B Organic Chemistry Laboratory (1)

* C or better required

Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better. Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Take one of the following courses

STAT 108 Statistics for Everyday Life (3)

Prerequisite: None.

* C or better required

BIOL 260 Biostatistics (3)

* C or better required

Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

EDP 419 Educational Statistics (3)

* C or better required

Prerequisites: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower-division statistics course.

PSY 110 Introductory Statistics (4)

* C or better required

Prerequisites: Eligible to take a General Education Mathematics course.

The Academy of Nutrition and Dietetics (AND) Didactic Program in Dietetics accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND)

The ACEND, the accrediting agency for the AND 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 currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the AND, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, phone: 312-899-0040, ext. 5400. This Council is 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 DPD Director to verify current ACEND requirements to become a Registered Dietitian.

Students who choose to meet DPD requirements must select the following as electives:

HFHM 375 Food Production Systems II (3)
Prerequisite: HFHM 276.

HFHM 477 Restaurant and Dining Management (3)
Prerequisite: HFHM 276.

Students must receive a grade of "C" or better in DPD courses to receive verification of completion of the DPD. Approval of a student's academic program by the CSULB DPD Director requires that the student complete HFHM 477, and NUTR 335 at CSULB. Upon completion of the Bachelor of Science in Dietetics and Food Administration with the Option in Nutrition and Dietetics, all students' transcripts are audited by the CSULB DPD Director to verify completion of course and grade requirements in order to receive the verification statement of completion of the DPD. Students can view details of the DPD program at www.csulb.edu/dpd.

Courses (NUTR)

LOWER DIVISION

132. Introductory Nutrition (3)

Prerequisite/Corequisite: One Foundation course.

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. (Lecture-discussion 3 hours)

234. Orientation to Dietetics and Food Administration (1)

Prerequisite: Open only to Nutrition and Dietetics majors.

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.

UPPER DIVISION

331. Nutrition through the Life Cycle (3)

Prerequisites: For the Dietetics Concentration BIOL 207, NUTR 132, NUTR 234; For the Nutritional Sciences Concentration BIOL 207, NUTR 132.

Nutritional needs with emphasis on changes through the life cycle, including pregnancy and lactation, infancy, childhood, adolescence, adulthood, and aging.

Letter grade only (A-F).

333. Latino Nutrition, Health and Chronic Disease Prevention (3)

Prerequisites: GE Foundation requirement, one or more Exploration courses and upper division standing.

Explores nutrition-related and contextual factors associated with the high rates of chronic disease among diverse Latino-specific subpopulations and provide culturally-relevant strategies for prevention.

Letter grade only (A-F). Same course as HSC 333. Not open for credit to students with credit in HSC 333.

334. Nutrition Education (2)

Prerequisites: NUTR 331, SOC 335

Develop effectiveness as a nutrition educator by applying behavior change theories and techniques. Develop critical thinking, research, and presentation skills through the design, implementation and evaluation of nutrition education for a variety of nutrition issues and audiences.

Letter grade only (A-F). (1 hour lecture activity and 2 hours technical activity and lab)

335 (formerly 436L). Nutrition Assessment (2)

Prerequisites: NUTR 331.

This course provides training in nutrition assessment as part of the Nutrition Care Process. Students will learn and practice laboratory methods for collection and interpretation of demographic, dietary, anthropometric, biochemical and clinical data.

Letter grade only (A-F). (1 hours lecture discussion and 3 hours technical activities and lab) Course fee may be required.

336. Social and Cultural Aspects of Food and Health (3)

Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

Social and cultural impacts on food and nutrition around the world. Global food patterns, culturally competent care, global hunger and food aid, and trends in food production.

Letter grade only (A-F). (Lecture 3 hours)

339. Nutrition for Nursing Professionals (3)

Prerequisites: CHEM 140, BIOL 207, admission to the School of Nursing or consent of instructor.

Metabolic role of nutrients in the human body; practical application of nutrition to patient care.

Open to Nursing Majors only. Letter grade only (A-F). (Lecture-activity 3 hours)

436. Advanced Nutrition (3)

Prerequisites/Corequisites: NUTR 331; CHEM 448

Metabolism of proteins, fats, carbohydrates, minerals and vitamins; interrelationship of nutrients; principles of determining nutritional requirements of individuals.

Letter grade only (A-F). (2 hours lecture activities and 2 hours technical activities and lab)

437. Nutrition Counseling and Motivational Techniques (2)

Prerequisites: NUTR 334, NUTR 335, NUTR 436.

Provides training in basic evidence-based nutrition interviewing and counseling strategies that are characterized by a collaborative counselor-client relationship to establish food/nutrition priorities, goals and individualized action plans. Supervised counseling is conducted at sites on and off campus.

Letter grade only (A-F). (2 hours seminar, 3 hours clinical activity.)

438A. Medical Nutrition Therapy I (3)

Prerequisites: NUTR 335, NUTR 436

The Nutrition Care Process and evidence-based practice are applied to specific pathophysiological conditions. The application of this process includes nutrition assessment, nutrition diagnosis, nutrition intervention, and nutrition monitoring and evaluation.

Letter grade only. (A-F). (2 hours of lecture activities and 2 hours of technical activities and lab)

438B. Medical Nutrition Therapy II (3)

Prerequisites: NUTR 438A.

The Nutrition Care Process and evidence-based practice are applied to specific pathophysiological conditions. The application of this process includes nutrition assessment, nutrition diagnosis, nutrition intervention, and nutrition monitoring and evaluation.

Letter grade only (A-F). (2 hours of lecture activities and 2 hours of technical activities and lab)

439. Nutrition and Aging (3)

Prerequisites: NUTR 132 or BIOL 207 or BIOL 301 or GERN 400 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 adults.

Letter grade only (A-F). Same course as GERN 439. Not open for credit to students with credit in GERN 439. (Lecture-discussion 3 hours)

461. Community Nutrition (3)

Prerequisites: NUTR 331, NUTR 334, NUTR 336.

Survey of nutrition programs in the community. Techniques of program planning, implementation, management and evaluation.

Letter grade only (A-F). (Lecture-activity 3 hours)

468. Nutrition for Exercise and Performance (3)

Prerequisites: NUTR 132, KIN 301 for the KIN Fitness option and the KIN Exercise Science option or BIOL 207 for the Nutrition and Dietetics option.

Explores the role nutrients play in exercise and performance enhancement. Topics include evaluation of energy needs during physical activity, examination of weight management practices, assessment of nutritional status, and investigation of contemporary dietary issues related to exercise.

Letter grade only (A-F). Same course as KIN 468. Not open for credit to students with credit in KIN 468. Open to Kinesiology undergraduate students in the Fitness and Exercise Science options and to the Nutrition and Dietetics option in Family and Consumer Sciences.

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 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)

498A. Senior Seminar for Dietetics I (1)

Prerequisite: NUTR 436.

Designed to prepare dietetic students for the transition from student to internship, graduate school, and/or career and to develop selected professional skills.

Letter grade only. (A-F). (1 hour seminar)

498B. Senior Seminar for Dietetics II (1)

Prerequisite: NUTR 498A.

Designed to showcase the outcomes of the nutrition program by presenting students' portfolios, engaging in networking, and completing the senior assessment and survey of the DPD program.

Letter grade only. (A-F). (1 hour seminar).