

# DESIGN

College of the Arts

**Department Chair:** Dorothy Ottolia

**Department Office:** Design (DESN), Room 101

Telephone / FAX: (562) 985-5089 / (562) 985-2284

Website: <http://www.csulb.edu/depts/design/>

**Undergraduate Advisor:** B.A./B.F.A./B.S.: Rachael Ryan  
(562) 985-4368; Design (DESN), Room 107

**Faculty:** Heather Barker, John Kleinpeter, Dorothy Ottolia, Eduardo Perez, José Rivera-Chang, David Teubner, Wesley Woelfel

**Administrative Coordinator:** Pamela Sample

## Career Possibilities

Industrial Designer • Interior Designer • Display/Exhibit Designer • Environmental Graphic Designer • Furniture Designer • Car Designer • Model Maker • Package Designer • Technical Illustrator • Teacher • Consultant • Commercial Artist • Architectural Illustrator • Product Designer • 3-D Graphic Illustrator (Some of these, and other careers, require additional education or experience. For more information, see [www.careers.csulb.edu](http://www.careers.csulb.edu).)

## Introduction

Today's designer must achieve sufficient educational breadth to adapt successfully to the varying demands imposed on their work by economic, social and psychological factors. A methodology for encouraging the creative problem solving process and the skill to express visual ideas with clarity must be obtained. A competitive portfolio review is held each year to identify students whose work has reached a level of competence necessary to advance to junior- and senior-level courses in Industrial Design and Interior Design. After passing portfolio requirements, selected students are officially admitted to the B.S. and B.F.A. programs. The B.A. program is open to all students.

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).

## Programs at a Glance

Bachelor of Arts in Design

Bachelor of Fine Arts in Interior Design

Bachelor of Science in Industrial Design

---

## Undergraduate Programs

---

### Bachelor of Arts in Design (120 Units)

This liberal arts degree provides the opportunity for the student to gain a broad exposure to the discipline. In addition to receiving a foundation through the core courses, the curriculum will also enable students to tailor their studies with electives from inside or outside of the college.

Students interested in the BA program in Design should apply as early in their academic career as possible, but no later than 60 units.

## Admission Under Impaction

Refer to the following website for additional impaction criteria: [http://www.csulb.edu/depts/enrollment/admissions/impacted\\_major.html](http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html).

## Requirements

120 units; a minimum of 40 units from Upper Division; and a minimum of 48 units from General Education.

Lower Division:

Take all of the following courses:

AH 111A Foundation Art History I (3)  
Prerequisite: One GE Foundation course

AH 111B Foundation Art History II (3)  
Prerequisite: One GE Foundation course

DESN 120A Fundamentals of Design (3)  
Prerequisite: None

DESN 120B Fundamentals of Design (3)  
Prerequisite: 120A or consent of instructor

DESN 132A Perspective and Rendering Systems (3)  
Prerequisite: None

DESN 132B Perspective and Rendering Systems (3)  
Prerequisites: 132A or consent of instructor

DESN 151 Industrial Design Materials and Tools (2)  
Prerequisite: None

DESN 232A Visualization Techniques (3)  
Prerequisites: DESN 120B, 132B or consent of instructor

DESN 255 2D Computer-Aided Graphics (3)  
Prerequisites: DESN 150 or 141 or consent of instructor

Choose one from the following:

DESN 141 Interior Architectural Drafting (3)  
Prerequisite: None

DESN 150 Design Drafting (3)  
Prerequisite: None

Choose one of the following:

DESN 156 3D Computer-Aided Design (3)  
Prerequisite: DESN 150 or consent of instructor

DESN 246 Computer-Aided Drafting (3)  
Prerequisite: DESN 141 or consent of instructor

Upper Division:

Choose one of the following:

DESN 346 Computer-Aided Design - 3D Modeling (3)  
Prerequisites: DESN 120B, 151, 232A, 246; and for BFA: DESN 242; and for BA: DESN 255; or consent of instructor

DESN 356 Advanced 3D Computer-Aided Design (3)  
Prerequisites: DESN 120B, 150, 151, 156, 232A, and 255

Take all of the following courses:

DESN 360A Environmental Communication Design (3)  
Prerequisites: AH 111A, 111B; DESN 156 or 246, 232A, 255 and 346 or 356 or consent of instructor.

DESN 360B Advanced Environmental Communication Design (3)  
Prerequisites: DESN 360A or consent of instructor. For Art majors: ART 149, 327 or consent of instructor.

DESN 367 History and Theory of Architecture (3)  
Prerequisite: Completion of GE Foundation requirements.

DESN 368 History and Theory of Design (3)  
Prerequisite: Completion of GE Foundation requirements.

DESN 369 History of Furniture and Decorative Arts (3)  
Prerequisite: Completion of GE Foundation requirements.

DESN 370 Design in Contemporary Society (3)  
Prerequisite: GE Foundation requirements.

DESN 450 BA Senior Project (3)  
Prerequisites: DESN 346 or 356, 360A, and 6 units of  
DESN History or consent of instructor.

#### Additional Requirements

Select a minimum of 22 additional units from inside  
or outside the department. 7 units must be upper-  
division.

A total of 120 units is required for degree completion.  
Students must achieve "C" or better in each course  
required by the major.

## Bachelor of Fine Arts in Interior Design

This degree prepares students who will eventually  
seek a master's degree or a position as a professional  
designer. The BFA program is a rigorous and competitive  
one. Portfolios are reviewed in the spring semester for fall  
admission to Junior standing in this degree program.

Applicants to the BFA program must receive a positive  
recommendation following review of a portfolio submitted  
by the applicant. For BFA portfolio review consideration, a  
student must be enrolled in or have successfully completed  
DESN 241, 242, 245 and 255 with a "C" or better. Students  
may apply to the BFA program when they have completed  
a minimum of 53 units, but may not apply after they have  
completed more than a maximum of 96 units.

Contact department for details of portfolio submission  
and review process.

### Admission Under Impaction

Refer to the following website for additional impaction  
criteria: [http://www.csulb.edu/depts/enrollment/admissions/  
impacted\\_major.html](http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html).

### Requirements

132 units, including 90 units for the major.

#### Lower Division:

Take all of the following courses:

AH 111A Survey of Western Art I (3)  
Prerequisite: One GE Foundation course

AH 111B Survey of Western Art II (3)  
Prerequisite: One GE Foundation course

DESN 120A Fundamentals of Design (3)  
Prerequisite: None

DESN 120B Fundamentals of Design (3)  
Prerequisite: 120A or consent of instructor

DESN 132A Perspective and Rendering Systems (3)  
Prerequisite: None

DESN 132B Perspective and Rendering Systems (3)  
Prerequisites: 132A or consent of instructor

DESN 141 Interior Architectural Drafting (3)  
Prerequisite: None

DESN 142 Beginning Space Planning (3)  
Prerequisites: DESN 120A, 132A and 141 or consent of  
instructor.

DESN 143 Materials of Interiors (3)  
Prerequisites: DESN 142 or consent of instructor.

DESN 151 Industrial Design Materials and Tools (2)  
Prerequisite: None

DESN 232A Visualization Techniques (3)  
Prerequisites: DESN 120B, 132B or consent of instructor

DESN 241 Design Drawing and Processes (3)  
Prerequisites: DESN 142 and 232A or consent of instructor

DESN 242 Interior Architectural Model Building (3)  
Prerequisites: DESN 120B, 132B, 142 and 151 or consent  
of instructor.

DESN 244 Lighting Design for Interior Architecture (3)  
Prerequisites: DESN 120B, 132B and 142 or consent of  
instructor.

DESN 245 Building Systems for Interior  
Architecture (3)  
Prerequisites: DESN 142 or consent of instructor.

DESN 246 Computer-Aided Drafting (3)  
Prerequisite: DESN 141 or consent of instructor

DESN 255 2D Computer-Aided Graphics (3)  
Prerequisites: DESN 150 or 141 or consent of instructor

#### Upper Division:

Take all of the following courses:

DESN 341A Interior Design (4)  
Prerequisites: DESN 241, 242, 244, 245, 246 and Junior  
standing in the Interior Design program or consent of  
instructor.

DESN 341B Interior Design (4)  
Prerequisites: DESN 341A and Junior standing in the  
Interior Design program or consent of instructor.

DESN 342 Interior/Architectural Presentations (3)  
Prerequisites: DESN 232A, 241, Junior standing in the  
Interior Design program and concurrent enrollment in DESN  
341A or consent of instructor.

DESN 343 Advanced Drafting and Detailing (3)  
Prerequisites: DESN 242, 245 and Junior standing in the  
Interior Design program or consent of instructor.

DESN 346 Computer-Aided Design – 3D Modeling (3)  
Prerequisites: DESN 120B, 151, 232A, 246; and for BFA:  
DESN 242; and for BA: DESN 255; or consent of instructor

DESN 367 History and Theory of Architecture (3)  
Prerequisite: Completion of GE Foundation requirements.

DESN 369 History of Furniture and Decorative Arts (3)  
Prerequisite: Completion of GE Foundation requirements.

DESN 440 Prof Practices for Interior Architecture (3)  
Corequisite: DESN 441A or consent of instructor.

DESN 441A Advanced Interior Design (4)  
Prerequisites: DESN 341B, 343 or consent of instructor.

DESN 441B Advanced Interior Design (4)  
Prerequisite: DESN 441A or consent of instructor.

Take a minimum of 6 units chosen from the following:

DESN 300, 333A, 344A/B, 351A/B, 352A/B, 360A/B,  
366, 368, 370, 435A/B, 490, 495, 499H

A total of 132 units is required for degree completion.  
Students must achieve "C" or better in each course  
required by the major.

## Bachelor of Science in Industrial Design (132 units)

This degree program is concerned with the relationship  
between technology and the visual arts. It includes  
background courses in engineering and sciences. Portfolio  
review is required for admission to the professional BS  
program. Portfolios are reviewed in the spring semester for  
fall admission to Junior standing in this degree program.

Applicants to the BS program must receive a positive  
recommendation following review of a portfolio submitted  
by the applicant. For BS portfolio review consideration, a  
student must be enrolled in or have successfully completed  
DESN 280, 320 and 356 with a "C" or better. Students

may apply to the BS program when they have completed a minimum of 53 units, but may not apply after they have completed more than a maximum of 96 units.

Contact department for details of portfolio submission and review process.

### Admission Under Impaction

Refer to the following website for additional impaction criteria: [http://www.csulb.edu/depts/enrollment/admissions/impacted\\_major.html](http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html).

### Requirements

132 units, including 94 units for the major.

Lower Division:

Take all of the following courses:

AH 111A Foundation Art History I (3)

Prerequisite: One GE Foundation course

AH 111B Foundation Art History II (3)

Prerequisite: One GE Foundation course

DESN 120A Fundamentals of Design (3)

Prerequisite: None

DESN 120B Fundamentals of Design (3)

Prerequisite: 120A or consent of instructor

DESN 132A Perspective and Rendering Systems (3)

Prerequisite: None

DESN 132B Perspective and Rendering Systems (3)

Prerequisites: 132A or consent of instructor

DESN 150 Design Drafting (3)

Prerequisite: None

DESN 151 Industrial Design Materials and Tools (2)

Prerequisite: None

DESN 154 Modeling and Prototyping Techniques (2)

Prerequisites: DESN 150 and 151 or consent of instructor.

DESN 156 3D Computer-Aided Design (3)

Prerequisites: DESN 150 or consent of instructor.

DESN 232A Visualization Techniques (3)

Prerequisites: DESN 120B, 132B or consent of instructor.

DESN 232B Visualization Techniques (3)

Prerequisite: DESN 232A or consent of instructor.

DESN 254 Production Materials and Techniques (3)

Prerequisites: DESN 154 and 156 or consent of instructor.

DESN 255 2D Computer-Aided Graphics (3)

Prerequisites: DESN 150 or 141 or consent of instructor

DESN 280 Industrial Design Processes (3)

Prerequisites: DESN 154, 156, 232B, and 255 or consent of instructor.

Upper Division:

Take all of the following courses:

DESN 300 Designers in Their Own Words (3)

Prerequisites: AH 111A and 111B or consent of instructor.

DESN 320 Advanced Form Study (3)

Prerequisites: DESN 232A and consent of instructor.

DESN 331A Industrial Design (3)

Prerequisites: DESN 280 and Junior standing in the Industrial Design program or consent of instructor.

DESN 331B Industrial Design (3)

Prerequisites: DESN 331A and Junior standing in the Industrial Design program or consent of instructor.

DESN 333A Industrial Design Methodology (3)

Prerequisites: DESN 280 and Junior standing in the professional program or consent of instructor.

DESN 333B Industrial Design Methodology (3)

Prerequisites: DESN 333A and Junior standing in the Industrial Design program or consent of instructor.

DESN 356 Advanced 3D Computer-Aided Design (3)  
Prerequisites: DESN 120B, 150, 151, 156, 232A, and 255.

DESN 368 History and Theory of Design (3)

Prerequisite: Completion of GE Foundation requirements.

DESN 431A Advanced Industrial Design (4)

Prerequisite: DESN 331B, PHYS 100A, 100B or consent of instructor

DESN 431B Advanced Industrial Design (4)

Prerequisite: DESN 431A or consent of instructor.

DESN 432A Advanced Rapid Visualization (3)

Prerequisites: DESN 232B, 255; and for BS Industrial Design: DESN 156; and for BFA Interior Design: DESN 346; and for BA Design: DESN 156 or 346 or consent of instructor.

DESN 435A Furniture Design (3)

Prerequisites: DESN 151, 232A; and for BS: DESN 331A; and for BFA: DESN 341A; and for BA: DESN 255 and 346 or 356; or consent of instructor.

### Additional Requirements

Take a minimum of 7 units chosen from the following:

DESN 344A/B, 346, 360A/B, 366, 367, 369, 370, 442G, 440, 490, 495, 499C, 499G, 499H.

Take a minimum of 6 units chosen from the following:

PHSC 112; PHYS 100A, 100B, 151, 152; CHEM 100; GEOL 102, 110, 160; BIOL 200, 205, 207.

A total of 132 units is required for degree completion.

Students must achieve "C" or better in each course required by the major.

---

## Courses (DESN)

---

### LOWER DIVISION

#### 110. Foundation Design History (3)

General survey of the history of design and its evolution through various stages leading to its current expression, analyzing the social influences and contributions of prominent designers of various periods.

Letter grade only (A-F).

#### 120A-B. Fundamentals of Design (3-3)

Prerequisites: for 120A: none; for 120B: 120A or consent of instructor.

Systematic approach to process of designing two, three-dimensional 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 or consent of instructor.

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.

Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

#### 142. Beginning Space Planning (3)

Prerequisites: DESN 120A, 132A and 141 or consent of instructor.

Functional, human, aesthetic factors of space planning for interiors.

Letter grade only (A-F). (6 hours laboratory)

**143. Materials of Interiors (3)**

Prerequisites: DESN 142 or consent of instructor.

Materials, processes, resources related to interior architecture. Examination of technology, application through lecture, demonstration, field trips.

Letter grade only (A-F).

Not open for credit for students with credit in DESN 243.

**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). Course fee may be required. (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 (3)**

Prerequisites: DESN 150 and 151 or consent of instructor.

Materials, processes, techniques for creating mock-ups, models, prototypes used by industrial designers.

Letter grade only (A-F). (6 hours laboratory)

**156. 3D Computer-Aided Design (3)**

Prerequisites: DESN 150 or consent of instructor.

Computer aided modeling strategies techniques for depicting three-dimensional surfaces, solids.

Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

**232A. Visualization Techniques (3)**

Prerequisites: DESN 120B, 132B or consent of instructor.

Introduction to technical drawing, visual presentation of concepts using communication techniques employed by professional design studios.

Not open for credit to students with credit in DESN 232. Letter grade only (A-F). (6 hours laboratory)

**232B. Visualization Techniques (3)**

Prerequisite: DESN 232A or consent of instructor.

Further exploration of technical drawing, visual presentation of concepts using communication techniques employed by professional design studios.

Letter grade only (A-F). (6 hours of laboratory)

**241. Design Drawing and Processes (3)**

Prerequisites: DESN 142 and 232A or consent of instructor

Introduction to Design drawing, design processes. sketching, solving limited scale interior, architectural problems.

Letter grade only (A-F). (6 hours laboratory)

**242. Interior/Architectural Model Building (3)**

Prerequisites: DESN 120B, 132B, 142 and 151 or consent of instructor.

Building of interior/architectural models for construction, design analysis, presentation.

Letter grade only (A-F). (6 hours laboratory)

**244. Lighting Design for Interior Architecture (3)**

Prerequisites: DESN 120B, 132B and 142 or consent of instructor.

Use of conceptual practical design problems. Nature, properties of light and color are studied.

Letter grade only (A-F). (6 hours laboratory)

**245. Building Systems for Interior Architecture (3)**

Prerequisites: DESN 142 or consent of instructor.

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). (3 hours lecture)

**246. Computer-Aided Drafting (3)**

Prerequisite: DESN 141 or consent of instructor.

Principles, methods of computer graphic applications utilizing AutoCad. Computer drafting of commercial, residential projects.

Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. Course fee may be required. (6 hours of laboratory)

**254. Production Materials and Technical Processes (3)**

Prerequisites: DESN 154 and 156 or consent of instructor.

Study of production processes, industrial materials utilized in the manufacturing of products. Includes introduction to rapid prototyping.

Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

**255. 2D Computer-Aided Graphics (3)**

Prerequisites: DESN 150 or 141 or consent of instructor.

Introduction to computer-aided graphics and image manipulation. Composition with typography and image for presentation authoring. Technology and terminology for digital media processes.

Letter grade only (A-F). (6 hours laboratory) Course fee may be required. Not open for credit for students with credit in DESN 256.

**280. Industrial Design Processes (3)**

Prerequisites: DESN 154, 156, 232B, and 255 or consent of instructor.

Introductory course in the design processes utilized by industrial designers for product development.

Letter grade only (A-F). (6 hours laboratory)

**UPPER DIVISION****300. Designers in Their Own Words (3)**

Prerequisites: AH 111A and 111B or consent of instructor.

Prominent design professionals discuss their career experiences and offer advice through formal presentations to design majors and guests.

Letter grade only (A-F). May be repeated up to 6 units.

**320. Advanced Form Study (3)**

Prerequisites: DESN 232A and consent of instructor.

Development of 3D models as it relates to Industrial Design. Form generation with emphasis on structure, proportion, surface, transition, detail and trim.

Letter grade only (A-F). (6 hours laboratory)

**331A. Industrial Design (3)**

Prerequisites: DESN 280 and Junior standing in the Industrial Design program or consent of instructor.

Planning design of useful products for industrial production. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours laboratory)

**331B. Industrial Design (3)**

Prerequisites: DESN 331A and Junior standing in the Industrial Design program or consent of instructor.

Further explorations of planning design of useful products for industrial production. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours laboratory)

### **333A. Industrial Design Methodology (3)**

Prerequisites: DESN 280 and Junior standing in the professional program or consent of instructor.

Examination of methods, techniques in design problem solving. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours laboratory)

### **333B. Industrial Design Methodology (3)**

Prerequisites: DESN 333A and Junior standing in the Industrial Design program or consent of instructor.

Further examination of methods, techniques in design problem solving. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours laboratory)

### **341A. Interior Design (4)**

Prerequisites: DESN 241, 242, 244, 245, 246 and Junior standing in the Interior Design program or consent of instructor.

Design of interior environments emphasizing interrelationships between interior space, architectural form, and human factors in design. Course may require laptop computer. See Department of Design website current laptop hardware and software specifications.

Letter grade only (A-F). (8 hours laboratory)

### **341B. Interior Design (4)**

Prerequisites: DESN 341A and Junior standing in the Interior Design program or consent of instructor.

Further exploration of design of interior environments emphasizing interrelationships between interior space, architectural form, and human factors in design.

Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

### **342. Interior/Architectural Presentations (3)**

Prerequisites: DESN 232A, 241, Junior standing in the Interior Design program and concurrent enrollment in DESN 341A or consent of instructor.

Exploring, using various techniques, methods of visually, verbally presenting design concepts, ideas, finished projects.

Letter grade only (A-F). (6 hours laboratory)

### **343. Advanced Drafting and Detailing (3)**

Prerequisites: DESN 242, 245 and Junior standing in the Interior Design program or consent of instructor.

Advanced drafting, detailing skills of architectural interior design related to light frame, other construction processes.

Letter grade only (A-F). (6 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

### **344A. Display and Exhibition Design (3)**

Prerequisites: AH 111A, 111B; DESN 120B, 141 or 150 and 232A or consent of instructor.

Use of materials, processes, design concepts in planning preparation of displays, exhibits.

Letter grade only (A-F). (6 hours laboratory)

### **344B. Display and Exhibition Design (3)**

Prerequisites: 344A or consent of instructor.

Use of materials, processes, design concepts in planning preparation of displays, exhibits.

Letter grade only (A-F). (6 hours of laboratory)

### **346. Computer-Aided Design – 3D Modeling (3)**

Prerequisites: DESN 120B, 151, 232A, 246; and for BFA: DESN 242, and for BA: DESN 255; or consent of instructor.

Computer-aided drawing, rendering, 3D drawing, solid modeling. Includes lighting, animation techniques for spatial/architectural modeling, design.

Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. Course fee may be required. (6 hours lab)

### **351A. Process of Architectural/Interior Lighting Design (3)**

Prerequisites: DESN 232A, 244 or consent of instructor.

Exploration of processes used to conceptualize, present, develop architectural lighting designs.

Letter grade only (A-F). (6 hours laboratory)

### **351B. Applications of Architectural/Interior Lighting Design (3)**

Prerequisites: 351A or consent of instructor

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). (6 hours laboratory)

### **352A. Specialty Equipment (1)**

Prerequisite: DESN 156 or 346; or consent of instructor.

Theory and demonstration of specialty equipment (Rapid Prototyping, the Computer Numeric Control machine and the 3D Scanner).

Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters. (2 hours of laboratory)

### **352B. Advanced Specialty Equipment (1)**

Prerequisite: DESN 352A or consent of instructor.

Advanced training in the operation of specialty equipment (Rapid Prototyping, the Computer Numeric Control machine, and 3D Scanner.)

Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters. (2 hours of laboratory)

### **356. Advanced 3D Computer-Aided Design (3)**

Prerequisites: DESN 120B, 150, 151, 156, 232A, and 255.

Advanced computer aided modeling techniques and strategic exercises created to assist, improve and accentuate the design process.

Letter grade only (A-F). (6 hours laboratory)

### **360A. Environmental Communication Design (3)**

Prerequisites: AH 111A, 111B; DESN 156 or 246, 232A, 255 and 346 or 356 or consent of instructor.

With new tools and methodology, design and present experimental, dynamic and interactive environments through use of form, color, light, sound, materials, and movement. Create systems for audience experience within virtual and physical environments. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours laboratory) Not open for credit for students with credit in DESN 360.

### **360B. Advanced Environmental Communication Design (3)**

Prerequisites: DESN 360A or consent of instructor. For Art majors: ART 149, 327 or consent of instructor.

Further exploration of audience experience. Design and present identification and information. Create systems for navigation within virtual and physical environments. See Department of Design website for current laptop hardware and software specifications.

Letter grade only (A-F). (6 hours of laboratory) Not open for credit for students with credit in DESN 360.

### **366. Advanced 3D Digital Modeling (2)**

Prerequisite: DESN 346 or consent of instructor.

Advanced texturing, and rendering techniques in 3D digital modeling for interior design.

Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. Course fee may be required. (4 hours laboratory)

### **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.

Letter grade only (A-F). Not open for credit to students with credit in ART 417. (3 hours lecture)

### **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.

Letter grade only (A-F). Not open for credit to students with credit in ART 418. (3 hours lecture)

### **369. History of Furniture and Decorative Arts (3)**

Prerequisite: Completion of GE Foundation requirements.

Study of the history of furniture, finish materials, accessories.

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

### **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). (3 hours lecture)

### **431A. Advanced Industrial Design (4)**

Prerequisite: DESN 331B, PHYS 100A, 100B or consent of instructor

Advanced planning, design of projects in area of mass produced objects, packaging, traffic, transportation, mechanical design, shelter.

Letter grade only (A-F). ( 8 hours laboratory )

### **431B. Advanced Industrial Design (4)**

Prerequisite: DESN 431A or consent of instructor.

Further explorations of advanced planning, design of projects in area of mass produced objects, packaging, traffic, transportation, mechanical design, shelter.

Letter grade only (A-F). (8 hours laboratory)

### **432A. Advanced Rapid Visualization (3)**

Prerequisites: DESN 232B, 255; and for BS Industrial Design: DESN 156; and for BFA Interior Design: DESN 346; and for BA Design: DESN 156 or 346 or consent of instructor.

Advanced idea generation, visualization for designers.

Letter grade only (A-F). Course fee may be required. (6 hours of laboratory)

### **432B. Advanced Rapid Viz (3)**

Prerequisites: DESN 432A or consent of instructor

Further explorations of advanced idea generation and visualization for designers.

Letter grade only (A-F). (6 hours of laboratory)

### **435A. Furniture Design (3)**

Prerequisites: DESN 151, 232A; and for BS: DESN 331A; and for BFA: DESN 341A; and for BA: DESN 255 and 346 or 356; or consent of instructor.

Design of public, private interior furnishings with in-depth study of potentials of contemporary production methods, materials.

Letter grade only (A-F). (6 hours of 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). (6 hours laboratory)

### **440. Professional Practices for Interior Architecture (3)**

Corequisite: DESN 441A or consent of instructor.

Examination of professional practices for commercial (corporate) institutional/public interior architectural design.

Letter grade only (A-F). (6 hours laboratory)

### **441A. Advanced Interior Design (4)**

Prerequisites: DESN 341B, 343 or consent of instructor.

Advanced interior design and space planning problems emphasizing relationships between built environment and human factors with a focus on social and environmental issues in design.

Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

### **441B. Advanced Interior Design (4)**

Prerequisite: DESN 441A or consent of instructor.

Further exploration of advanced interior design and space planning problems emphasizing relationships between built environment and human factors with a focus on social and environmental issues in design.

Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

### **442G. Internship in Industrial Design (3)**

Prerequisite: DESN 331A or 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.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (6 hours laboratory)

### **442H. Internship in Interior Design (3)**

Prerequisite: DESN 341A or 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.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (6 hours laboratory)

### **450. BA Senior Project (3)**

Prerequisites: DESN 346 or 356, 360A, and 6 units of DESN History or consent of instructor.

To identify and refine an area of interest through the development of a senior project. Should be taken in the last semester before graduation.

Letter grade only (A-F). (6 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

**490. Selected Topics in Design (1-3)**

Prerequisite: Consent of instructor.

Special topics of current interest in design will be selected for intensive study.

Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics will be announced in the *Schedule of Classes*. (2-6 hours laboratory)

**495. Field Studies in Design (1-6)**

Prerequisite: Consent of instructor.

An opportunity to study design movements, objects, theories, techniques at appropriate off-campus locations.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester.

**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.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (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.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (6 hours 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.

Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (6 hours laboratory)