DESIGN (DES)
College of Letters & Science

DES 001 — Introduction to Design (4 units)
Course Description: Introduction to design discipline through readings, writing, visual problem solving, and critical analysis. Topics: design principles and elements, vocabulary, color theory, Gestalt principles, conceptualization strategies. Role of designer and products in contemporary culture including social responsibility and sustainability.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 014 — Design Drawing (4 units)
Course Description: Drawing as a tool for design. Basic skills in objective observation and representation, including line, shape, tone, and space. Drawing as a tool for formulating and working through design problems.
Prerequisite(s): DES 001 (can be concurrent); students who have prior unarticulated college level credit in design drawing are encouraged to submit a course equivalency review; this can include classes that have been granted Advanced Placement or International Baccalaureate credits; please see Design Department website for submission requirements and deadlines.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 015 — Form & Color (4 units)
Course Description: Understanding color, form and composition as ways of communicating design concepts and content. Color theory, color mixing, interaction of color. Design principles and elements. Gestalt theory. Explores a variety of materials, media and presentation techniques.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 016 — Graphic Design & Computer Technology (4 units)
Course Description: Introduction to digital tools with emphasis on graphic design including theory, practice and technology. Includes principles of color, resolution, pixels, vectors, image enhancement, layout, visual organization, visual hierarchy, typography.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 021 — Drafting & Perspective (4 units)
Course Description: Introduction to mechanical drafting, including scaled drawing, orthogonal projection, isometric, axonometric and perspective. Includes basic rendering techniques.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 040A — Energy, Materials, & Design Over Time (4 units)
Course Description: Global history of design across time, viewed through the lens of the effects of the creation and discovery of new energy sources, processes, and materials on design.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Cross Listing: SAS 043.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); World Cultures (WC).

DES 040B — Ideologies of Design (4 units)
This version has ended; see updated course, below.
Course Description: Introduction to the history and theory of design in particular relation to political, philosophical, cultural, economic, and environmental debates and objectives.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Writing Experience (WE).

DES 040B — Ideologies of Design (4 units)
Course Description: Introduction to the history and theory of design in particular relation to political, philosophical, cultural, economic, and environmental debates and objectives.
Prerequisite(s): DES 001.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Writing Experience (WE).
This course version is effective from, and including: Winter Quarter 2024.
DES 040C — Design for Aesthetics & Experience (4 units)
Course Description: Global historical survey of design’s engagement with changing notions of aesthetics and experience. Relates transformations in the theory, production, and reception of all aspects of design (objects, landscapes, architectures, etc.) to larger cultural, social, and political contexts.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Grade Mode: Letter.
General Education: Arts & Humanities (AH). 

DES 040D — Designed Geographies: Environment, Containment, Sanctuary (4 units)
Course Description: Historical survey of the role of design in the production of geographic location. Role of design in the choreography or enforcement of bodies in geographic space. Global exploration of the design imagination in the creation of alternatives to built space in the present.
Learning Activities: Lecture 2 hour(s), Lecture/Discussion 1 hour(s), Independent Study.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); American Cultures, Governance, & History (ACGH); Domestic Diversity (DD); Writing Experience (WE). 

DES 050 — Introduction to Three-Dimensional Design (4 units)
Course Description: Design concept development and detailing as it relates to the making of objects, structures and models using form, scale and materials. Product design and rapid prototyping methods using a range of techniques for advancing the design process.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL). 

DES 051 — Computer-Assisted Drawing for Designers (4 units)
Course Description: Computer-assisted drawing (CAD) and modeling using a mid-level, multi-use CAD program. Basic architectural drawing and modeling technique in both two-dimensional and three-dimensional CAD environments.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 6 hour(s).
Credit Limitation(s): Not open for credit to students who have taken DES 150A.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL). 

DES 070 — Introduction to Textile Design Structures (4 units)
Course Description: Introduction to diverse methods for creating textile structures. Exploration of the creative potential of hand-constructed textiles, manipulation of fabric to create dimensional surfaces, and the basics of building and joining fabric structures.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Credit Limitation(s): Only 2 units of credit to students who have completed DES 023 or DES 024; not open for credit to students who have completed both DES 023 & DES 024.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL). 

DES 077 — Introduction to Structural Design for Fashion (4 units)
Course Description: Study and practice of designing clothing for the human body. Emphasis on flat pattern development, structural joining sequences and the development of three-dimensional garments from two-dimensional drawings.
Prerequisite(s): DES 001 (can be concurrent); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Credit Limitation(s): Not open for credit to students who have completed DES 077A.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL). 

DES 099 — Special Study for Undergraduates (1-5 units)
Course Description: Special study for undergraduates.
Prerequisite(s): Consent of instructor.
Learning Activities: Variable.
Grade Mode: Pass/No Pass only.
DES 107 — Advanced Structural Design for Fashion (4 units)
Course Description: Advanced study and practice of designing clothing for the human body through pattern development and structural joining. Emphasis on draping techniques and advanced conceptualization for fashion design.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 077; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 111 — Coding for Designers (4 units)
Prerequisite(s): DES 001; DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Credit Limitation(s): Not open for credit to students who completed DES 037.
Grade Mode: Letter.
General Education: Science & Engineering (SE); Visual Literacy (VL).

DES 112 — UI/UX Design: Principles & Practices (4 units)
Course Description: Principles and practices of User Interface (UI) and User Experience (UX). Design for digital, interactive media. Iterative design processes, audience research.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Repeat Credit: May be repeated 1 time(s).
Grade Mode: Letter.
General Education: Arts & Humanities (AH).

DES 113 — Photography & Digital Imaging (4 units)
Course Description: Digital imaging techniques using black/white and color. Critical analysis of photographs and the role of photography in society. Explore use and meaning of single, sequence and single composite images.
Prerequisite(s): DES 001; DES 015; DES 016.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Credit Limitation(s): Not open for credit to students who have taken DES 031.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 115 — Letterforms & Typography (4 units)
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Credit Limitation(s): Not available for credit to students who have completed DES 022.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 116 — Visual Communication: Graphic Design Studio (4 units)
Course Description: Multiple, conceptually-linked assignments focusing on the fundamental choices designers make in translating concepts into effective graphic form. Problem finding and analysis of audience needs. Design process from research and initial concepts to project prototypes. May be taught abroad.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 115; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Credit Limitation(s): Not open for credit to students who have completed DES 152 or DES 152A.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 117 — Interactive Media I (4 units)
Course Description: Practice of creating interactive visual media for network-based applications and principles of human computer interaction. Responsive design. User-centered research, information architecture, interface and interaction. Analysis of usability. Development and presentation of design production materials and completed interactive projects.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 126 — Design Ethnography (4 units)
Course Description: Practical introduction to design ethnography through project-based work. Tools and methods, observation, interviews, fieldnotes, and synthesis of qualitative data. Exploration of participatory design. Examination of the ethical questions.
Prerequisite(s): DES 001; or consent of instructor.
Learning Activities: Lecture/Lab 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH).
DES 131 – Global Fashion & Product Design (4 units)
Course Description: Exploration of materials, embellishments, and structural techniques derived from historic and contemporary world cultures. Emphasis on unique qualities of individual expression applied to handmade textiles, fashion and textile products. May be taught abroad.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 132A – Textile Design: Woven Structures (4 units)
Course Description: Foundation in handwoven textile structure and design, emphasizing yarn identification, basic drafting, basic weaves and their derivatives explored in context of original color effects and yarn combinations.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Repeat Credit: May be repeated 1 time(s) with consent of instructor.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 133 – Furniture Design & Detailing (4 units)
Course Description: Development of designs for contemporary furniture. Consideration of behavioral and physical requirements, cultural and historic expression, and structural and aesthetic qualities. Process includes research, drawings, and construction of scale models. Required field trip.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).
DES 135B – Furniture Design & Prototyping (4 units)
Course Description: Design and construction of full size prototype furniture based on preliminary work completed in DES 135A. Material technology, construction methods, and finishes discussed. Development of shop drawings and furniture construction. Required field trip.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 136A – Lighting Technology & Design (4 units)
Course Description: Introduction to lighting design and technology. Understanding the role of lighting and vision in the development of functional and aesthetically pleasing environments.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Laboratory 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 136B – Designing with Light–Industrial Design (4 units)
Course Description: Design and manipulation of light sources, luminaires, and lighting controls to enhance the functional and aesthetic impact of interior and exterior spaces. Industrial design projects explore lighting effects, light distribution characteristics, and luminaire design.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 136A; or consent of instructor.
Learning Activities: Laboratory 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 137A – Daylighting & Interior Design (4 units)
Course Description: Emphasis on understanding the effect of daylight on the perception of interior designs as well as on vision, luminous and thermal comfort, health and energy efficiency.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 137B – Daylighting Design Studio (4 units)
Course Description: Introduction to daylighting through observation of its effects on interior designs using scale models of interior designs of choice and photographing them outdoors and in CLTC’s Heliodon to understand year-round performance.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 138 – Materials & Methods in Interior Design (4 units)
Course Description: Introduction to the finish materials used for interior design with special emphasis on sustainable and recycled products. Performance factors, relative costs and energy impacts, installation conditions and construction details, and design potential for a full range of interior materials.
Prerequisite(s): DES 001; or consent of instructor.
Learning Activities: Lecture/Discussion 3 hour(s), Project 1 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL); Writing Experience (WE).

DES 141 – Cultural Studies of Fashion (4 units)
Course Description: Cultural studies theories and methods used to explore an inclusive approach to design studies. Fashion in dress and other areas of design in society. Race, ethnicity, gender, sexuality, class, national identity, disability, age/generation, and religion, and the intersectionalities among these subject positions in the transnational design, production, circulation, and consumption of fashion.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Credit Limitation(s): Not open for credit to students who have taken TXC 007.
Grade Mode: Letter.
General Education: Arts & Humanities (AH) or Social Sciences (SS); Visual Literacy (VL); World Cultures (WC); Writing Experience (WE).

DES 142A – World Textiles: Eastern Hemisphere (4 units)
Course Description: Social contexts, meanings, aesthetics, stylistic developments, and methods significant in eastern hemisphere textiles. Emphasis on Japan, China, Indonesia, Oceanica, Southern and Central Asia, Africa.
Learning Activities: Lecture 4 hour(s).
Grade Mode: Letter.
General Education: Arts & Humanities (AH).

DES 142B – World Textiles: Western Hemisphere (4 units)
Course Description: Social context, aesthetics, stylistic developments and methods significant in western hemisphere textiles. Emphasis on the Middle East, Europe, and the Americas up to contemporary times. Two required field trips.
Learning Activities: Lecture 4 hour(s).
Grade Mode: Letter.
General Education: Arts & Humanities (AH).

DES 143 – History of Fashion (4 units)
Course Description: History of fashion design from the earliest times to the present focusing on the ancient Middle East and Common Era North America and Europe. Emphasis on aesthetic, functional, social, economic, political and cultural aspects of clothing and personal adornment.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).
DES 144 — History of Interior Architecture (4 units)
Course Description: Thematic survey of interior architecture. Emphasis on dwellings in their cultural settings and development of modern interior design theories. Interiors considered in relation to buildings’ exteriors, sites, and uses.
Prerequisite(s): Consent of instructor.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Pass One priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Writing Experience (WE).

DES 145 — History of Visual Communication (4 units)
Course Description: Historical developments of visual communication, concentrating on the technological and aesthetic development of graphic design; origins and manifestations of current issues in visual communication; provide framework for analysis of current and future trends in visual communication.
Prerequisite(s): DES 001; or consent of instructor.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 146 — Mobilities (4 units)
Course Description: Mobilization of social space through ships, trains, bicycles, cars, planes, and skate parks. Exploration of the impact of driverless vehicles and civilian space travel on the safety, enjoyability, sustainability, and accessibility of social space. Critical, historical, aesthetic and political understanding of how humans move.
Learning Activities: Lecture/Discussion 3 hour(s), Term Paper.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 148 — Trend Research & Forecasting in Design (4 units)
Course Description: Short term and long term trends, micro and macro trends. Theories of adoption and diffusion of trends. Economic, political, technological and psychological indicators in trend forecasting. Future trends in design using cultural brailing, cross-cultural analysis methods and ethnographic research.
Learning Activities: Lecture/Discussion 4 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 149 — Information Design: Principles & Practice (4 units)
Course Description: Design principles and visual strategies for effective information display; analysis of contemporary and historical examples of visual representations and visual narratives in science, humanities, and the arts; emergence of digital methods for interactive data presentation.
Prerequisite(s): Upper division standing or consent of instructor.
Learning Activities: Lecture 3 hour(s), Discussion 1 hour(s).
Enrollment Restriction(s): Restricted to students with upper division standing.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 150 — Computer-Assisted Presentations for Interior Architecture (4 units)
Course Description: Computer-assisted architectural presentation including the development of complex 3D models, techniques of photorealistic rendering and computer simulation of movement through architectural and interior space.
Prerequisite(s): DES 051 or DES 150A.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Open to Design Majors only.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 151 — Type in Motion (4 units)
Course Description: Fundamentals of creating motion-based, screen-based typography. Consideration of narrative structures, movement assemblage, and other visual languages, synthesized within a nuanced understanding of typography within digital space. May be taught abroad.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor. DES 115 recommended.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 154 — Visual Communication: Message Campaign Design (4 units)
Course Description: Principles and application of visual design strategies for projects that address a broad public audience. Emphasis on design for social awareness/interaction/benefit. Creation of public visual-media campaign.
Prerequisite(s): DES 115; DES 116; DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Credit Limitation(s): Not open for credit to students who have completed DES 152B.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 155A — Pattern, Form & Surface (4 units)
Course Description: Experimental approaches to form-making through an examination of pattern, form, and surface in historical and contemporary contexts. Explorations of alternative design processes, methods, and materials that open up new possibilities for content creation and invention in design practice.
Prerequisite(s): DES 001; DES 115; (DES 014 or DES 021); DES 015; DES 016; (DES 031 or DES 113); or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority given to Design majors.
Grade Mode: Letter.
General Education: Visual Literacy (VL).
DES 156 — Graphitecture: Architecture in the Age of New Media (4 units)
Course Description: New media and its impact on environmental design; analysis of contemporary projects at the intersection of architecture and new media; time-based strategies of representation; digital narrative. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Priority to Design majors. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 157A — Interactive Media II (4 units)
Course Description: Technical practice for interactive media using the front-end stack (html, css, js). Conceptual framework, user experience, visual interface and interaction design. Research and written pre-production materials required. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 111; DES 117; or consent of instructor. Learning Activities: Studio 5 hour(s), Practice 1 hour(s). Enrollment Restriction(s): Open to Design majors only. Grade Mode: Letter. General Education: Visual Literacy (VL).

DES 157B — Interactive Media III (4 units)
Course Description: Capstone interactive media course that furthers understanding of and experimentation with the front-end stack with libraries, databases, sensors and microcomputers. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 021; DES 111; DES 112; DES 117; (DES 157 or DES 157A); or consent of instructor. Learning Activities: Studio 5 hour(s), Practice 1 hour(s). Enrollment Restriction(s): Pass One open to Design majors only. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 158 — Data & Large-Scale Installation (4 units)
Course Description: Design of large-scale installations using data for engagement with sites, systems, phenomena, or situations that promote interaction between information, narrative, media, and space. Data literacy tools and methods in data acquisition, visualization, and analytics for designers. Data discoveries, formulating narratives, and building large-scale installations as critical design. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; (DES 111 or DES 135A or ART 005); or consent of instructor. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Pass One open to Design majors; enrollment restricted to upper division students. Repeat Credit: May be repeated 2 time(s). Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 159 — Design for Understanding (4 units)
Course Description: Principles of effective information display including aspects of language, structure, legibility, sequencing, and context. Analysis of historical examples of typographic, diagrammatic, and cartographic excellence. User-centered research. Development and presentation of iterative design prototypes. Design that informs, connects, and inspires. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 115; DES 116; or consent of instructor. DES 117 recommended. Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s). Enrollment Restriction(s): Pass One open to Design majors. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 160 — Textile Surface Design: Patterns & Resists (4 units)
Course Description: Use of traditional and contemporary processes to create images and patterns on fabric using a variety of dyes, including direct applications, bound and mechanical resists, and surface additives. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; or consent of instructor. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Pass one restricted to Design majors. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 161 — Textile Surface Design: Screen & Digital Printing (4 units)
Course Description: Design of textiles and screen printing on fabrics; soft-product development; integration of hand-produced and digitally generated imagery on cloth. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Pass One restricted to Design majors. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 165 — Studio Practices in Industrial Design (4 units)
Course Description: 3D studio methods for design, including: historic and contemporary developments in industrial design; innovation in material and fabrication technology; design based projects for everyday objects including soft goods, electronics, transportation. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; (DES 050 or DES 150), or consent of instructor. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Pass One restricted to Design majors. Grade Mode: Letter. General Education: Science & Engineering (SE); Visual Literacy (VL).

DES 166 — Human Centered Design (4 units)
Course Description: Human-centered approach to problem solving, ethnography, ideation, project framing, rapid prototypes, visual communication, and experiential learning. Creative approaches to graphic design, industrial design, fashion, business, and entrepreneurship. Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015. Learning Activities: Studio 6 hour(s). Enrollment Restriction(s): Pass One restricted to Design majors. Grade Mode: Letter. General Education: Arts & Humanities (AH); Visual Literacy (VL).
DES 167 — Prototyping: From Objects to Systems (4 units)
Course Description: Exploration of rapid prototyping techniques for objects, interactive experiences, services and organizations. Understanding of additive manufacturing, foam models, digital interfaces and business models.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; or consent of instructor.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Grade Mode: Letter.
General Education: Science & Engineering (SE); Visual Literacy (VL).

DES 168 — Interactive Objects (4 units)
Course Description: Introduction to Physical Computing through a hands-on experience. Concepts, techniques and technologies required to conceptualize, design and prototype interactive devices by the merge of digital fabrication, computer programming, and electronics.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or Consent of instructor.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One open to Design majors only.
Grade Mode: Letter.
General Education: Arts & Humanities (AH) or Science & Engineering (SE); Visual Literacy (VL).

DES 169 — Advanced Explorations in Textile Design (4 units)
Course Description: Advanced exploration of textile design aimed at developing unique textiles for a specific end product such as a fashion collection, functional interior design, art textile or surface design competition.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; DES 160 or DES 161; or consent of instructor. DES 070 recommended.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Repeat Credit: May be repeated 1 time(s) with consent of instructor; topics and themes change yearly; criteria is: (1) space with first priority to students not previously taken the course and (2) course content must be sufficiently different from the previous time the student took the course.
Grade Mode: Letter.
General Education: Arts & Humanities (AH).

DES 170 — Experimental Fashion & Textile Design (4 units)
Course Description: Experimental approaches to fashion and textile design. Emphasis on developing conceptual ideas and translating them into one-of-a-kind garments and soft products. Exploration of a variety of current topics including sustainability, pattern design, new technologies, and social activism.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Repeat Credit: May be repeated 1 time(s) with consent of instructor.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 171 — Fashion Drawing: Technical & Illustration (4 units)
Course Description: Exploration of fashion design processes for industry within the social and physical context. Emphasis on two-dimensional conceptualization of ideas, garment construction, and ideation processes utilizing commercial textiles. Field trip required.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor; DES 014 recommended.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 175 — Functional Apparel Design (4 units)
Course Description: Application of hands-on & theoretical human-centered design processes and methods to functional apparel. Materials and methods for designing functional apparel for extreme environments and activities, performance and bodily function enhancement, health and wellbeing of users. Dynamics of the human body that interact with clothing during environmental and activity-based challenges.
Prerequisite(s): DES 001; DES 014; DES 015, and consent of instructor.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 177 — Computer-Assisted Fashion Design (4 units)
Course Description: Advanced exploration of apparel design processes for industry and personal expression with emphasis on computer-assisted design applications. Field trip required.
Prerequisite(s): DES 077; DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.
Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).
Enrollment Restriction(s): Priority to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 178 — Design & Wearable Technology (4 units)
Course Description: Introduction to wearable technology and related technologies. Emphasis on designing, and fabricating prototypes of wearable technology for value-added designs and to improve quality of life.
Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; (DES 037 or DES 111); or consent of instructor.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Pass One restricted to Design majors.
Grade Mode: Letter.
General Education: Arts & Humanities (AH); Visual Literacy (VL).
DES 179 — Fashion Design: Signature Collection (4 units)

Course Description: Advanced exploration of fashion design with an emphasis on professional portfolio development and presentation. Emphasis on conceptualizing, designing, and fabricating a cohesive line of wearable garments suitable for presenting in a public fashion show.

Prerequisite(s): DES 077; (DES 107 or DES 177); DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Credit Limitation(s): Not open for credit to students who have taken more than 8 units of DES 191A.

Repeat Credit: May be repeated 1 time(s).

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 180A — Advanced Interior Design: Institutional Spaces (4 units)

Course Description: Advanced interior design problems focused on complex institutional spaces. Introduction to building codes related to interior design. Integration of building systems with interior design solutions.

Prerequisite(s): DES 001; (DES 021 or DES 051 or DES 150A); or consent of instructor.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 180B — Advanced Interior Architecture (4 units)

Course Description: Advanced problems in interior architectural design emphasizing space planning for corporate and institutional environments. Field trips required.

Prerequisite(s): (DES 180A or DES 134B); DES 134A; or consent of instructor.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 185 — Exhibition Design (4 units)

Course Description: Design of cultural and commercial exhibition environments, including exhibition development and object selection, spatial planning and architectural finishes, object placement and staging, interpretive strategies, exhibition and promotional graphics.

Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor; DES 051 or DES 150A recommended.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 186 — Environmental Graphic Design (4 units)

Course Description: Design of informational and directional graphics for the built environment. Application and integration of typography, imagery, and symbols into the architectural landscape. Development of universal wayfinding and graphic navigational systems to help people find their way.

Prerequisite(s): DES 001; (DES 014 or DES 021); DES 015; DES 016; or consent of instructor; DES 115 recommended.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 187 — Narrative Environments (4 units)

Course Description: Design of storytelling environments and multisensory experiences for cultural, commercial, entertainment and public spaces. Interpretive planning and design for specific exhibit audiences. Manipulation of objects and the communication of complex ideas in the exhibition environment. May be taught abroad.

Prerequisite(s): (DES 185 or DES 186); (DES 014 or DES 021); DES 001; DES 015; DES 016; or consent of instructor.

Learning Activities: Studio 4 hour(s), Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Priority to Design majors.

Grade Mode: Letter.

General Education: Arts & Humanities (AH); Visual Literacy (VL).

DES 190 — Proseminar (1 unit)

Course Description: Philosophies of design explored through discussion and presentation of research results.

Prerequisite(s): Design major or consent of instructor.

Learning Activities: Seminar 1 hour(s).

Repeat Credit: May be repeated 3 time(s).

Grade Mode: Pass/No Pass only.

DES 191A — Workshops in Design (4-12 units)

Course Description: Faculty initiated workshops featuring advanced studies and applications of original work in Design: Costume. Letter grading by contract. Field trips included.

Prerequisite(s): DES 014; DES 015; and consent of instructor; upper division standing.

Learning Activities: Seminar 1 hour(s), Studio 3 hour(s).

Credit Limitation(s): Credit limited to 12 units in one section or a combination of sections.

Repeat Credit: May be repeated.

Grade Mode: Letter.

DES 191B — Workshops in Design (4-12 units)

Course Description: Faculty initiated workshops featuring advanced studies and applications of original work in Design: Environment. Letter grading by contract. Field trips included.

Prerequisite(s): DES 014; DES 015; and consent of instructor; upper division standing.

Learning Activities: Seminar 1 hour(s), Studio 3 hour(s).

Credit Limitation(s): Credit limited to 12 units in one section or a combination of sections.

Repeat Credit: May be repeated.

Grade Mode: Letter.
DES 191C — Workshops in Design (4-12 units)
Course Description: Faculty initiated workshops featuring advanced studies and applications of original work in Design: Graphics. Letter grading by contract. Field trips included.
Prerequisite(s): DES 014; DES 015; and consent of instructor; upper division standing.
Learning Activities: Seminar 1 hour(s), Studio 3 hour(s).
Credit Limitation(s): Credit limited to 12 units in one section or a combination of sections.
Repeat Credit: May be repeated.
Grade Mode: Letter.

DES 191D — Workshops in Design (4-12 units)
Course Description: Faculty initiated workshops featuring advanced studies and applications of original work in Design: Textiles. Letter grading by contract. Field trips included.
Prerequisite(s): DES 014; DES 015; and consent of instructor; upper division standing.
Learning Activities: Seminar 1 hour(s), Studio 3 hour(s).
Credit Limitation(s): Credit limited to 12 units in one section or a combination of sections.
Repeat Credit: May be repeated.
Grade Mode: Letter.

DES 192 — Internship (1-12 units)
Course Description: Supervised internship, off and on campus, in areas of design including graphics, fashion, information, museum, interaction, interiors, lighting, product and textiles.
Prerequisite(s): Consent of instructor.
Learning Activities: Internship 3-36 hour(s).
Repeat Credit: May be repeated 12 unit(s).
Grade Mode: Pass/No Pass only.

DES 194HA — Special Study for Honors Students (3 units)
Course Description: Preparation and presentation of a culminating project. Supervision of an instructor in one of the creative or scholarly areas of Design.
Prerequisite(s): Consent of instructor; qualification for Letters and Science Honors Program; senior standing; approval of Design Honors Program proposal by the Curriculum Committee and major advisor.
Learning Activities: Independent Study 9 hour(s).
Enrollment Restriction(s): Limited enrollment.
Grade Mode: Letter.

DES 194HB — Special Study for Honors Students (3 units)
Course Description: Preparation and presentation of a culminating project. Supervision of an instructor in one of the creative or scholarly areas of Design.
Prerequisite(s): DES 194HA; and consent of instructor; qualification for Letters and Science Honors Program; senior standing.
Learning Activities: Independent Study 9 hour(s).
Enrollment Restriction(s): Limited enrollment.
Grade Mode: Letter.

DES 197T — Tutoring in Design (1-5 units)
Course Description: Leading of small discussion groups or studio meetings affiliated with one of the department's regular courses.
Prerequisite(s): Consent of instructor; upper division standing.
Learning Activities: Discussion 3-15 hour(s).
Grade Mode: Pass/No Pass only.

DES 198 — Directed Group Study (1-5 units)
Course Description: Directed group study. May be taught abroad.
Prerequisite(s): Consent of instructor. Upper division standing.
Learning Activities: Variable.
Grade Mode: Pass/No Pass only.

DES 198F — Student-Taught Course (1-4 units)
Course Description: Student-facilitated (taught) course intended for upper division students.
Learning Activities: Variable 1-4 hour(s).
Grade Mode: Pass/No Pass only.

DES 199 — Special Study of Advanced Undergraduates (1-5 units)
Course Description: Special study of advanced undergraduates.
Learning Activities: Variable.
Grade Mode: Pass/No Pass only.

DES 199FA — Student Facilitated Course Development (1-4 units)
Course Description: Planning and development for student led DES 198F under the supervision of a faculty member.
Prerequisite(s): Consent of instructor.
Learning Activities: Variable 1-4 hour(s).
Grade Mode: Pass/No Pass only.

DES 199FB — Student Facilitated Teaching (1-4 units)
Course Description: Student-facilitated course under the supervision of a faculty member, an undergraduate student teaching a course under 098F/198F.
Prerequisite(s): DES 199FA; and consent of instructor.
Learning Activities: Variable 1-4 hour(s).
Grade Mode: Pass/No Pass only.

DES 221 — Theory & Issues in Design (4 units)
Course Description: Perspectives on theoretical and aesthetic issues related to the design professions such as methodology in historical and contemporary contexts, implications of technology on design theory and practice, and design relationships to environmental sustainability, recycling, and other social issues.
Prerequisite(s): Graduate standing in Design or consent of instructor.
Learning Activities: Seminar 3 hour(s), Independent Study.
Grade Mode: Letter.
DES 222 — Research Methods & Critical Writing for Design (4 units)
Course Description: Focused on research methods and critical writing related to design topics including case studies, original and secondary sources, critical reviews. Expectation of a paper meeting professional standards suitable for publication from each student at end of course.
Prerequisite(s): DES 221; graduate standing in Design or consent of instructor.
Learning Activities: Seminar 3 hour(s), Independent Study.
Repeat Credit: May be repeated 1 time(s).
Grade Mode: Letter.

DES 223 — Professional Practice & Ethics in Design (4 units)
Course Description: Introduce students to issues of professional design practice; business ethics, contracts and business practices, social responsibility through case studies, guest lectures and field trips, and readings. Short written assignments and presentations will be required.
Prerequisite(s): DES 221; DES 222; graduate standing in Design or consent of instructor.
Learning Activities: Seminar 3 hour(s), Independent Study.
Grade Mode: Letter.

DES 224 — Seminar in Design Research & Teaching (4 units)
Course Description: Work closely with instructor on a research and writing project related to subject matter of undergraduate history courses noted above with the goal of introducing student to advanced historical research processes and development of writing skills.
Prerequisite(s): DES 221; DES 222; DES 223; and consent of instructor; concurrent academic appointment (TA) in DES 142A, DES 142B, DES 143, DES 144, DES 145; graduate standing in Design.
Learning Activities: Independent Study 6 hour(s), Extensive Writing 4 hour(s), Discussion 2 hour(s).
Repeat Credit: May be repeated 2 time(s).
Grade Mode: Letter.

DES 225 — Studio Practice in Design (4 units)
Course Description: Students work together on a collective project to experience the multiple phases of design through an iterative process. Design projects will be geared towards relevance in contemporary social, cultural and political contexts.
Prerequisite(s): DES 221.
Learning Activities: Studio 6 hour(s).
Enrollment Restriction(s): Restricted to graduate standing in Design or consent of instructor.
Repeat Credit: May be repeated 2 time(s).
Grade Mode: Letter.

DES 226 — Studio Practice & Critique (4 units)
Course Description: Development of design mastery through individual design process and projects. Risk taking and development of the ability to add form to ideas both speculative and practical. Various design methodologies and creative making. Presentation of works in progress. Communication of effective feedback.
Prerequisite(s): Graduate status in the Department of Design or consent of instructor.
Learning Activities: Studio 5 hour(s), Practice 1 hour(s).
Enrollment Restriction(s): Open to Design Graduate students only.
Repeat Credit: May be repeated 2 time(s) no more than once per year.
Grade Mode: Letter.

DES 227 — Thesis Exhibition Studio & Critique (4 units)
Course Description: Development of final thesis exhibition. Focus on audience engagement and accessibility. Ideation, content selection, formal development, spatial planning sketches, scaled models, mockups, material testing, sequencing, staging, technical riders, maintenance requirement write-ups. Individual statement writing, collective catalog writing, exhibition promotion.
Prerequisite(s): Consent of instructor.
Learning Activities: Studio 5 hour(s), Practice 1 hour(s).
Enrollment Restriction(s): Open to second year Design MFA students only.
Grade Mode: Letter.

DES 290 — Seminar in Design (4 units)
Course Description: Selected topics in design methodology, research, communication, and education.
Prerequisite(s): Graduate standing in Design or consent of instructor.
Learning Activities: Seminar 4 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Letter.

DES 292 — Practicum in Design (1-12 units)
Course Description: Interaction with a working professional in the student's field of interest to apply theories and concepts to working practice.
Prerequisite(s): Graduate standing in Design or consent of instructor.
Learning Activities: Variable 3-36 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

DES 298 — Directed Group Study for Graduate Students (1-5 units)
Course Description: Directed group study for graduate students.
Prerequisite(s): Consent of instructor.
Learning Activities: Studio.
Grade Mode: Satisfactory/Unsatisfactory only.

DES 299 — Individual Focused Study (1-12 units)
Course Description: Advanced study in studio practice on independent projects with faculty consultation.
Prerequisite(s): Graduate standing in Design or consent of instructor.
Learning Activities: Variable 3-36 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.

DES 299D — Project Concentration (1-12 units)
Course Description: Student creates a body of original work at a professional level, with written and visual documentation of process and concepts underlying the project, culminating in public presentation.
Prerequisite(s): Graduate standing in Design or consent of instructor; minimum of 22 units must be taken in Project Concentration and Individual Focused Study.
Learning Activities: Variable 3-36 hour(s).
Repeat Credit: May be repeated.
Grade Mode: Satisfactory/Unsatisfactory only.
DES 396 — Teaching Assistant Training Practicum (1-4 units)

Course Description: Teaching assistant training practicum.
Prerequisite(s): Graduate standing.
Learning Activities: Variable.
Repeat Credit: May be repeated.
Grade Mode: Pass/No Pass only.