
Course Descriptions

Department Environmental Design

AD100 Drawing in Place

Drawing has a long and rich history, and this course is an attempt to encourage students to create a vocabulary of skills. Through looking and practice, each student learns tools to apply to their individual creative work in order to develop a coherent language of expression. Cross-disciplinary in nature, drawings are a means of communication - of ideas, objects, and places. Working from direct observation, students begin with small sketches at a human scale and build upon their work in diverse contexts.

Prerequisites: None

critique(4hrs)

departmental required

AD102 Technical Drawing for Environmental Designers

Development of technical drawing skills through exploration in various media using architectural or industrial design contexts. Introduces various drawing techniques. Attention is given to 3D material rendition, construction means, and form characteristics through measuring, documentation, and transformation into 2D drawing. Freehand and hard line drawing including plan, section, elevation, axonometric, isometric, and perspective.

Prerequisites:

critique(4hrs)

departmental elective

AD200 Pattern Language & Morphology in Architecture

The course will address the preliminary design skills and the process of design associated with basic issues in architecture presented as a series of projects that each connect patterns of use, specific building materials, formal aspects of materials in context, space and meaning. Issues will include building and ground, building and light, definition of the edge and screens, programs and sizes of use, material frameworks and organization, orientation and context.

Prerequisites:

critique(4hrs)

departmental required

AD202 Methods and Materials

The studio introduces students to the origins, properties, working methods, and assembly techniques of the major materials that comprise the built environment.

Prerequisites: None

hybrid studio/critique(5hrs)

departmental required

AD203 3D Modeling

An exploration of current 3D modeling programs using simple design projects as the basis for learning the software for developing design concepts in three dimensions, expanding upon 2D AutoCAD and other drawings into 3D models, rendering, lighting, shadow studies and transformations. This course will also explore simple transformations of images in PhotoShop. Includes an investigation of a wide variety of applications in these skills.

Prerequisites: AD102 Technical Drawing for Environmental Designers

hybrid studio/critique(5hrs)

departmental elective

AD219 AutoCAD Space Planning

Current professional architectural design and drafting software is introduced in the context of space planning for domestic, educational, commercial and industrial uses. The process of planning space is covered from interviewing the client, measuring and documenting existing space and equipment, understanding the needs of users, applying building codes, ergonomic requirements, and accessibility laws, producing several logical preliminary schemes, to finally developing a complete set of working drawings for the scheme selected, using the 2D features of AutoCAD. Typical projects include space use, reflected ceiling, dimensions and details, and material and color plans.

Prerequisites: Technical Drawing; freshmen with permission of instructor

hybrid studio/critique(5hrs)

departmental elective

AD223 Architectural Design I

An introduction to architecture as a social art involving responsibility to inhabitants, form, and material within public and private contexts. Projects demonstrate evaluation of program choices, building systems, methods, and craft. Students develop skills in transforming design ideas into built form.

Prerequisites: AD200, AD202

studio(6hrs)

departmental required

AD227 Architectural Structures I

Introduces construction at a domestic scale through lectures, slides and field trips. Structural calculations include safe selection of building parts by stress analysis, beam equations and column computations. Students learn sufficient wood and masonry building techniques to design a small wood frame building. Assignments include structural models and calculations.

Prerequisites: None

lecture/seminar(3hrs)

departmental required

AD300X Design/Build/Artisanry

Students participate in the design and construction of community based projects. Projects vary each year and may be local for non-profit groups, or they may be abroad, participating in historical restoration using traditional tools. Each project involves understanding the needs of the client, research of precedents, design concepts, materials and discoveries originating from design intentions, design and construction drawings and models, presentations to client and faculty, and some construction. Building and fabrication may occur in the MassArt wood, metal and glass shops and/or on the client site, under the supervision of experienced professionals. Depending on the project scope, credits earned may be 3 or 6.

Prerequisites: Woodworking course or life experience in construction, or permission of instructor

hybrid studio/critique(5hrs)

departmental elective

AD301 Design Works at MassArt

Design Works is a multi-disciplinary critique and seminar class in current design topics. This semester the class investigates lighting. Invited experts in the lighting and research field provide essential tools, background and demonstrations in a lecture and presentation format, with the class culminating in a final project that solves a particular design issue. Each project is pre-selected based upon the actual needs of a corporate or community partner, and the students address specific component solutions that are covered in the course content. Typical topics include but are not limited to investigations of built form, analysis of precedent, daylighting, product design, line and low voltage systems, the science of light, experimentation of light as material, sustainability, lighting loads, solar energy systems, and physical applications.

Prerequisites: Open to Freshmen with Permission of Instructor

hybrid studio/critique(5hrs)

departmental elective

AD307 Furniture Design I

This studio is designed as an introduction to the basic principles of furniture design as it relates to history, methods of production and style. The projects are structures for the student to develop a design method that is based upon content, idea and a rigorous examination of preconceived conventions.

Prerequisites: AD202 Methods and Materials or TDA201 Projects in Wood

hybrid studio/critique(5hrs)

all college elective

AD310 Architectural Design II

Development of tools and fundamental skills to form a primary competence in the development of preliminary and final designs for required programs, building and site propositions. They include the acts of integration, exploration, projection and the ability to think critically about how concepts and methods can influence the forms of building and the built environment.

Prerequisites: AD 223

hybrid studio/critique(5hrs)

departmental required

AD311 Interior Architecture I

Students are introduced to the basic principles of interior architecture, seen as an extension of the built environment. Through documentation, research in modular frameworks, program interpretation, the nature of renovation, the interpretation of materials and the development of color and texture assemblages, students are exposed to the processes of visual communication using a variety of forms. Interior spaces must satisfy both the artistic and functional requirements of place making for inhabitation. Projects require skills in form and program development, building systems, code requirements and space planning.

Prerequisites: None

hybrid studio/critique(5hrs)

required & elective

AD315 3D Computer Modeling

An exploration of form.Z for computer-aided designing and PhotoShop for manipulation of images created with form.Z. Includes investigation of a wide variety of applications of these skills.

Prerequisites: None

lecture/seminar(3hrs)

departmental elective

AD317 Architectural Structures II

Continues structural design of wooden buildings and computations for generic or special extra load applications requiring compound wood sections. Introduces steel construction and calculation for steel beams and columns. Plumbing, heating and insulation are covered and students design a domestic plumbing system.

Prerequisites: AD227 or equivalent approved by instructor

lecture/seminar(3hrs)

departmental required

AD320 Architectural Design III

Students are exposed to design exercises that both increase in complexity and scale as a means to investigate larger scale programming issues, complex and/or mixed social groups within the same or related buildings, and experiment with structure, form and frameworks as they support use, program and spaces for people. Students will be exposed to basic issues of sustainable design, community building through design, and manipulation of complex program elements. Research in the issues, materials and methods of construction applicable to these issues are explored including analysis of building precedents.

Prerequisites: AD310, AD317, AD350

hybrid studio/critique(5hrs)

departmental required

AD321X Interior Architecture II

Students are required to think critically about the concepts and methods that influence the form and function of interior environments. Current design problems are utilized to understand relevant issues employing restoration techniques, period style, history, decorative details, space planning, sound control, lighting, mechanical systems, furniture, material, texture, and color.

Prerequisites: AD311

hybrid studio/critique(5hrs)

departmental required

AD327 Architectural Structures III

Introduces structural design of compound steel beams and columns and long span trusses of steel or wood. Topics in building science include electricity, wiring, lighting and day lighting, long span roofing, and foundation and site methods.

Prerequisites: AD317 or equivalent approved by instructor

lecture/seminar(3hrs)
departmental required

AD350 Building Components and Details

Construction and detailing of architectural elements for industrial, architectural, and interior designers. Lectures and assignments using drawing and modeling techniques to design and detail elements such as modular furniture, cabinetry, hardware, partition systems, wall infill systems, and greenhouse systems.

Prerequisites:

hybrid studio/critique(5hrs)
departmental required

AD356 Exhibit Design

The intent of this class is to discover and explore the basic principles of designing exhibits: frameworks, the act of exhibiting, issues in ergonomics relevant to exhibits, scale and the exploration of materials, form, material and fabrication. Students are exposed to concepts of time - selling and celebration, drama and exposition, cause and effect.

Prerequisites: Slots open to Freshmen with permission of instructor

critique(4hrs)
all college elective

AD391 Rendering

Architectural rendering using traditional and digital media of interior and exterior views of the built environment for all students of Architecture and Interior Architecture. Students work with various media, techniques, in black-and-white and color media to produce renderings from actual sites, photographs, drawings and plans. Perspective and axonometric techniques are discussed.

Prerequisites: DE214 or DE215; Open to sophomores with permission of instructor

critique(4hrs)
departmental elective

AD392 AD Course Assistantship

Prerequisites:

AD398 AD Internship

Prerequisites:

AD399 AD Independent Study

Prerequisites:

AD3X0 Sustainable Architecture

This course is a proposition, a guided field-trip in the exploration of the relationships between human-designed environments and the ecology and environment of the landscapes in which we live. It is intended to contribute to the students' understanding and appreciation of design as integral to the environment and sustainable within the world community. The course will be a workshop in which professionals in fields of architecture, and the design of ecological and human environments and systems (such as solar, water, waste, recycling, alternative communities, etc.) present and explore the nature of inhabitation and its effects on the quality of our built landscapes.

Prerequisites: Open to Freshmen with permission of instructor

lecture/seminar(3hrs)
departmental elective

AD3X4 Lighting Design: First Light

First Light is a multi-disciplinary course in light and lighting design. Invited experts in the lighting and research field provide essential tools, background, and demonstrations in a lecture and presentation format, with the class culminating in a final project that solves a particular design issue. Each project is pre-selected based upon the actual needs of a corporate or community partner, and the students address specific component solutions that are covered in the course content. Typical topics include but are not limited to investigations of built form, analysis of precedent, day lighting, product design, line and low voltage systems, the science of light, experimentation of light as material, sustainability, lighting loads, solar energy systems, and physical applications. This course is open to all levels of students, with permission of the instructor, who are interested in light and relevant problem solving. Field trips to local lighting design centers, actual state of the art projects, fabrication shops, and research by local design firms included. Study models, drawings, research and presentation boards in traditional and digital media.

Prerequisites: Open to all levels with permission of the instructor

critique(4hrs)
departmental elective

AD3X5 Berlin: Cutting-edge Contemporary Architecture and Public Art

This elective studio will lead students on a ten-day study tour of Berlin, the capital of Germany, and provide opportunity for cross-disciplinary, collaborative, project-based learning. Study emphasis will be placed on recent developments in architecture and public art following the fall of the Berlin Wall in 1989. The educational theme will particularly stress sustainable architecture and design, because there is substantial new development that showcases best practices, and the most advanced work in sustainability is occurring in Europe. The Berlin program will consist of three main components: 1) visit and study important sites of contemporary architecture, public art, and planning; 2) meet with professionals in the fields of public art and architecture; and 3) create a hands-on, interdisciplinary, collaborative art project.

Prerequisites:

travel
all college elective

AD3X7 Architecture and Urban Planning

This course introduces students to a broad range of current and historic theories while also introducing the means and methods of generating architecture and urban design. Material presented covers issues of urban design, city evolution, as well as the social, economic and political forces shaping urban life. Current topics in urban design are discussed including sustainable cities, information architecture, density, urban transport and active communities. Related disciplines and policies relevant to urban projects are reviewed for a comprehensive investigation.

Prerequisites: None
critique(4hrs)
all college elective

AD406 Sustainable Site Design

This course is a guided experience through solving the riddle of a site. It proposes that the first objective in design is to understand the social and environmental history as well as the ecology of a place as a means to understand its natural systems, taking full advantage of this information in the service of creating a seamless harmony between building and place. It requires the learning of the language of ecology to serve in the communication between design professionals including land architects and building architects, land surveyors, wetland ecologists, science professionals, and the federal, state and local regulatory agencies (EPA, Executive Office of Environmental Affairs, local Conservation Commissions, etc.). As a topic, this course will marry the science and the art of place and place-making.

Prerequisites: AD2X0, AD320
critique(4hrs)
departmental elective

AD407 Furniture Design II

This studio is designed as a continuation of many of the principles of Furniture Design I with an emphasis on production furniture. The projects are structured for the student to develop a design method that is centered on issues of design related to production, manufacture and industry. The course will examine the history of production pieces, processes of fabrication focusing on wood as the primary material.

Prerequisites: AD202 Methods and Materials, AD307 Furniture Design I
hybrid studio/critique(5hrs)

AD410 Architectural Design IV

Architectural design projects of increasing complexity, emphasizing understanding architecture as the essence of place and place-making. The course provides a framework for design decisions related to complex programs in community or urban design requiring long span or taller structures in steel or concrete.

Prerequisites: AD320
hybrid studio/critique(5hrs)
departmental required

AD411X Interior Architecture IV

Interior Architecture IV includes projects of increasing complexity, emphasizing understanding space as the essence of place. The course provides a framework for design decisions related to complex programs, systems and planning of public and private large-scale interior spaces.

Prerequisites: AD321X
hybrid studio/critique(5hrs)
departmental required

AD417 Architectural Structures IV

Introduces structural design of 3-hinged arches and concrete buildings including computations for safe selection of beams, joists, slabs, and columns. Topics in building science include active and passive solar design, HVAC, acoustics, concrete methods, and critical path method job planning.

Prerequisites: AD327 or equivalent approved by instructor
lecture/seminar(3hrs)
departmental elective

AD430 Architectural Design V

Students are introduced to design projects increasing in complexity. The focus in this studio will be on a community based project with a focus on urban design issues. Students will focus on issues of mixed use, frameworks for urban design, and social and political issues of urban structures. The studio will have a basis in sustainable design issues as they affect transportation, mixed use, materials, alternative power and urban systems.

Prerequisites: AD410, AD3X7 and formal admission into the M. Arch. Program, or permission of instructor

critique(4hrs)

departmental elective

AD450 Degree Project I/Portfolio

A major architectural design project of some complexity is proposed and undertaken during this first semester of a two-part exploration. In this semester, the student develops a thesis/design issue for research, conducts research on the thesis proposition, including finding and utilizing a professional in the field relevant to their project. The student proposes a program for the project work, researches and documents a local site, and develops a site plan for building and landscape, taking into consideration existing site location, use, landscape, ecology and community.

Prerequisites: AD320
lecture/seminar(3hrs)
departmental required

AD451 Degree Project II

In this second half of a two-part studio, students take their programs, research, design concepts and issues, as well as preliminary design drawings, site plans and models and/or other work from their proposed thesis developed in the first semester, and develop these preliminary plans and propositions into a final thesis presentation.

Prerequisites: AD450
hybrid studio/critique(5hrs)
departmental required

**AD452X Interior Architecture Degree
Project I/Portfolio**

The student proposes a complex interior architecture project during this first semester of a two-part exploration. In this semester, the student develops a thesis for research, conducts research on the thesis proposition, including finding and utilizing a professional relevant to their selected project. The student researches, documents and develops a program, taking into consideration existing building conditions, location and user program needs, and develops preliminary drawings, models, prototypes as relevant to their design.

Prerequisites: AD321X
hybrid studio/critique(5hrs)
departmental required

**AD453X Interior Architecture Degree
Project II**

This is the second semester of a dedicated studio that combines the research and preliminary designs from the first studio with in-depth study of materials, techniques, volume sequences, furniture and building details from their proposed thesis developed in the first semester, and continue to elaborate and develop these ideas into a final thesis presentation.

Prerequisites: AD452X
hybrid studio/critique(5hrs)
departmental required

AD4X1 Professional Practice

Students are introduced to the responsibility of the practice through social and community design issues, fiduciary responsibility, design and construction contracts and contract law, regulations and codes governing design and construction, ethics, sustainability and environmental issues and requirements for both building and site design.

Prerequisites:
critique(4hrs)
departmental elective

FD1X2 Color, Line, and Design

This is a hands-on class using innovative 2D and 3D projects and field trips to explore basic design elements and color theory which have direct application across all areas of Design. The student will develop skills to communicate ideas through bold and deliberate use of color, pattern and shape and follow those ideas through to create a variety of end products with awareness of the past and an eye to the future.

Prerequisites:
hybrid studio/critique(5hrs)
all college elective

FD201X Textiles and U4ia

Students use advanced industry applications in U4ia (CAD system) for creating printed fabrics, knit, and woven presentation boards. Students develop knowledge for scanning, color reduction, creating and putting into repeat, original textile designs.

Prerequisites: None
critique(4hrs)
departmental required

FD202X Handbag Design I

Accessories are a major part of the fashion industry. Explore handbag design accessory specialization in this course that includes a brief history of the handbag, researching present trends and creating your own handbag designs. Using industry standards, students will design and construct a clutch, soft shoulder and other handbags.

Prerequisites:
critique(4hrs)

FD205X Fashion History II

In the second half, the survey continues on as we explore the glamorous fashions of the Rococo period. Magnificent architecture, artworks, and portraits painted by English and French artists set the tone for the early part of the course. The rigid garments are a reflection of the social structure and class system that will come undone with the rise of the French Revolution. "The Age of Napoleon" (or French Empire as it is more typically known) will be depicted in all of its contrived glory by Jacques Louis David in paintings elevating the newly formed French court in 1804. This section will also cover the rise of the new middle class, the elongated and romantic span of the Victorian era (1837-1901), and the development of machinery to speed up textile production, mechanical looms, and the sewing machine. The changes in masculine and feminine roles will also play a part in the reaction to fashion for the people who lived in those times. Paris, as the new center of fashion, with the development of the French Couture and the designer salon, will take us from the 1850's through to the 1960's. Art, culture, music, and the "Silver Screen" will provide a backdrop for the direction of fashion throughout the 20th century.

Prerequisites: None
lecture/seminar(3hrs)
all college elective

FD220 Fashion Illustration I

An introduction to the methods of Illustration for the Fashion Designer. Basic anatomy and analysis of the idealized fashion female and male figures will be emphasized through demonstrations and in-class exercises. Students will illustrate Color Fashion Plates with apparel details, fashion silhouettes, and textile rendering using magic marker, watercolor, acrylic, and gouache. Basic layout skills, critique and editing processes are critical foundation teachings. Flat sketch, technical drawing skills are taught.

Prerequisites: None
critique(4hrs)
departmental required

FD221 Fashion Illustration II

An advanced course in rendering Fashion Illustration for the Fashion Designer both by hand and Adobe Photoshop. The fashion figures will be manipulated in multi-figure fashion spreads for collection and portfolio building. Demonstrations by instructor on layout and composition variables incorporating interactive movement of both the figure and the clothing. Anatomy studies, exaggeration of the garment silhouette, volumizing and creative style stressed. Advanced textile rendering and detailed flat sketching. Instructor led combination techniques of both hand and computer-aided fashion rendering.

Prerequisites: FD 220
critique(4hrs)
departmental required

FD254 Fashion and U4ia

An introduction to the creative, technical and research skills needed in designing apparel. Projects develop sketching techniques and use of apparel software, U4ia, for design and execution of presentation boards.

Prerequisites: None
critique(4hrs)
departmental required

FD255 Creative Fashion Design I

Communication of original ideas using geometric principles in design as well as master block pattern structure. Students learn fundamental draping and development. Basic garment construction and the experience in translating creative designs into 3D form. Work in fabric and non-textiles.

Prerequisites: FD 256
hybrid studio/critique(5hrs)
departmental required

FD256 Pattern Drafting and Construction I

An introduction to the principles and procedures in the development and use of the flat pattern. The course introduces basic master block patterns with design changes.

Prerequisites:
hybrid studio/critique(5hrs)
departmental required

FD257 Pattern Drafting and Construction II

Development of master block patterns to include dress and pant with additional design options. Introduction to machine stitching for basic garment construction.

Prerequisites: FD 256
critique(4hrs)
departmental required

FD260 Fashion Industry Production/Gerber

Designing for mass-production using CAD - Gerber Garment Technology. Production methods of design and pattern/marker making utilizing the Accumark Silhouette System.

Prerequisites: FD 256
critique(4hrs)
departmental elective

FD301X Brazil: Global Community Fashion Design Partnership

A small team of advanced students will be offered the opportunity to live and work with the artisans of Terra Prometida, in Fortaleza, Brazil.

The Design Partnership will directly address the goal of sustainable employment for a group of women who are perfecting their apparel and accessory design skills focusing on renda de bilro or Brazilian Bobbin-Lace. The groundwork for this exchange is the work of a non-profit organization, Fairloom. The challenge is to find products that can be marketed in the United States, yielding enough of an income for the women to support themselves as well as continue to support their on-going business endeavor. Students will have projects to complete on their own as well as participate in the required workings of a small fashion/ textile business. The first half of the trip will be spent finding inspiration in the surroundings. Along with starting the design process of their own concepts, students will help the women with some fashion production elements. The second half of the trip will be used to collaborate with the women on design ideas for garments and accessories. The real privilege of this situation is being invited into a community so different and yet with such shared values and interests.

Brazil: Global Community Fashion Design Partnership
Meets Thursdays 11:30-1:00 Room 655
February 21, April 3, April 17, May 8, May 22, Travel May 26-June 11

Brazil: Global Community Fashion Design Partnership
Leaders: Renee Harding + Annie Doran
Travel dates: May 26-June 11, 2008

Prerequisites:
travel
all college elective

FD302X Paris to Antwerp: Crossing the Fashion Spectrum

This course will examine both the historical heritage of couture design as found through the textiles, techniques and craftsmanship of the designers as well as a contemporary view of the globalization of fashion and where designers are heading in the future. We will examine how the old world techniques continue to shape and work within the technological advancements of the present day. Students will examine how Antwerp has surfaced as a leading innovative force in fashion and what this means in the larger global context. All of this will be accomplished through lectures and coursework throughout the semester and will culminate with a 2 week travel program to Antwerp and Paris in Jan. 2009. Students will complete a final project based on their research, exploration and travel experiences.

Prerequisites:
travel
all college elective

FD316X The Fashion Marketplace

Designing your first fashion collection is just the beginning. Reaching potential customers is equally important. This course is all about the business of fashion and how to pitch your creations to retailers, clients, and the media.

Topics will include understanding today's retail landscape (from pricing and merchandising to trade shows and key selling opportunities), as well as fashion marketing skills, such as brand building, capitalizing on trends, and public relations/advertising campaigns. For the final project, students will create, merchandize, and promote a temporary retail store at MassArt where their clothing designs will be sold to the public following the fashion shows in May.

Prerequisites: FD255, FD256, FD257
lecture/seminar(3hrs)
departmental elective

FD351 Textiles

An exploration of historic changes in fabrics, both natural and synthetic, and uses in today's market. Includes studies in fabric content, treatment and care, fibers and weaves, and methods of printing and painting on fabric.

Prerequisites:
hybrid studio/critique(5hrs)
departmental elective

FD353 Pattern Drafting and Construction III

A course in advanced pattern drafting and grading techniques that emphasize tailored silhouettes. Students create original patterns as a means to experiment with advanced tailoring.

Prerequisites: FD 256, FD 257
critique(4hrs)
departmental required

FD354 Creative Fashion Design II

Intermediate level fashion design. Students develop more intricate designs into finished projects. Emphasis is on personal interpretation of projects in Ready-to-Wear categories that include swimwear, sportswear and outerwear.

Prerequisites: FD 255
hybrid studio/critique(5hrs)
departmental required

FD355 Creative Fashion Design III

Students develop more intricate designs into finished projects. Emphasis is on personal interpretation of projects in Couture Design that include lingerie, bridal, eveningwear and theatrical costume.

Prerequisites: FD 354
hybrid studio/critique(5hrs)
departmental required

FD358 Fashion Marketing

An examination of the major considerations involved in buying, selling, and promoting fashion merchandise in wholesale and retail markets. Through an analysis of American and European industry, students learn research techniques and identify professional resources.

Prerequisites:
lecture/seminar(3hrs)
departmental required

FD359 Tailoring

Advanced construction techniques are used to develop knowledge of structure, shape, and tailoring to fit and style. Traditional methods of tailoring are utilized to create permanent shaping. Advanced principles of cut, seaming, hand-detailed construction and steam pressing help to develop a foundation to experiment with silhouettes.

Prerequisites: FD 356
critique(4hrs)
departmental required

FD392 FD Course Assistantship

Prerequisites:

FD398 FD Internship

Prerequisites:

FD399 FD Independent Study

Prerequisites:

FD450 Degree Project I

Students research and design a collection presenting a theme-oriented portfolio of finished work. Individual guidance in executing boards for original design ideas based on sources of inspiration that may include important artists, ancient cultures, historical eras, scientific resources or a specialized related technical design area. (two semesters)

Prerequisites: FD 355, FD 358
critique(4hrs)
departmental required

FD451 Degree Project II

Student research project - part II. Students present a theme-oriented formal collection of finished work based on their research. Sources of inspiration may include important artists, ancient cultures, historical eras, scientific resources, or a specialized related technical design area.

Prerequisites: FD 450
critique(4hrs)
departmental required

FD455 Creative Fashion Design IV

Students are encouraged to seek their personal direction in fashion design in order to develop their full potential while reaching professional standards in portfolio presentation. Students work on a collection of ensembles that represent advanced techniques in fashion design.

Prerequisites: FD 355
critique(4hrs)
departmental required

FD457 Specialized Fashion Study

An introduction to related fashion specialties of millinery, gloves, footwear, handbags, fur, leather, and cosmetics. Topics include origins, methods of production and finishing, construction, terminology and quality identification. Assignments include millinery and glove design.

Prerequisites: FD 355
lecture/seminar(3hrs)
departmental elective

FD458 Couture Techniques

Techniques and design details such as trapunto, couching, and quilting. Technical elements of the couture will include embroidery, pleating and advanced seam finishes.

Prerequisites: FD 357
lecture/seminar(3hrs)
departmental elective

ID1X0 Designer Drawing

This course stresses observation as the foundation for design innovation and communication. Visual innovation will be reinforced by "direct from life observation" and iterative manipulation of those observations. Drawing is a principal skill for designers.

Prerequisites:

all college elective

ID205 Drawing for Designers

The documentation and communication of ideas requires fluency with symbolic and illustrative methods, a language. This course develops and refines the basis of this language used to communicate the characteristics of objects and systems, through the exploration of various media using architectural or industrial design contexts, this language will be applied to objects and systems allowing them to be easily understood and reproduced.

Prerequisites:
hybrid studio/critique(5hrs)
departmental elective

ID215 Industrial Design Principles

An introduction to processes used in all areas of design and illustration, this course provides a foundation in the methods of concept, image, and form development. Using initial techniques such as brainstorming, mind mapping, and researching, ideas are developed for a variety of 2D and 3D solutions to applied projects. Tackling common issues of personal engagement, collaboration, and client interaction, students express a personal voice within the specific parameters of each assigned problem.

Prerequisites: SF 186 or transfer credit
hybrid studio/critique(5hrs)
departmental required

ID216 Introduction to CAD/Solid Modeling for ID

Course focuses on introducing industrial designers to the basics of solid modeling. Concepts and software tools for 2D and 3D visualization will be introduced. CAD modeling techniques, plastic design, and design process are also highlighted. Various illustrations will be explored for how CAD can be used throughout the design process, from creating underlays and final mechanical drawing to exporting files for photorealistic renderings in 3rd-party software.

Prerequisites: DE 215 or ID205
hybrid studio/critique(5hrs)
departmental elective

ID218 Product Rendering

An in-depth study of several product illustration and presentation styles. Many different drawing and rendering media are used to develop skills in product design presentation.

Prerequisites:
critique(4hrs)
departmental elective

ID220 Joinery

The class develops and refines craftsmanship and design process in the context of fine woodworking. Lectures and student research on the history of designing in wood, modern movements, and techniques.

Prerequisites:
hybrid studio/critique(5hrs)
departmental elective

ID224 Conceptual Drawing

The course stresses the process of working with dry media techniques (graphite, charcoal, pastel, colored pencil, scratchboard), basic drawing skills, and 2D principles to render concepts. Visual metaphors are explored by manipulating the contexts and relationships of objects and figures.

Prerequisites: None
hybrid studio/critique(5hrs)
departmental elective

ID225 Industrial Design Form

The purpose of this course is to endow students with a vocabulary of form with which to express the function and meaning of their ideas. This will be achieved through the exploration of the objects and object vocabulary, which surround us, and through the development of the students' skills to express ideas visually. The students will be required to develop their communication skills as well as refine their two-and three-dimensional concepts and project realization.

Prerequisites:
hybrid studio/critique(5hrs)
departmental required

ID235 Manufacturing Process I

A materials and manufacturing awareness production course in two parts. Part one includes casting, fabrication, and molding techniques for metals and plastics. Students discuss production techniques, selection and use of modern machine tools, dies, jigs, and fixtures. Part two includes product development documentation (three-view preliminary design layout drawings) for manufacturing processes such as sheet metal, casting, extrusion plastics, injection molding, vacuum form, blow molding, and fiberglass.

Prerequisites: ID215, ID225
lecture/seminar(3hrs)
departmental required

ID245 Human Factors I - Ergonomic

Review of current theory and practice in issues related to human/machine interface, ergonomics, universal design, etc. Methods and practice of human factors research applied to the re-definition of a product idea.

Prerequisites: ID215 & ID225
hybrid studio/critique(5hrs)
all college elective

ID314 Rapid Visualization and Perspective

Course focuses on sketching as the fundamental tool for communication for designers. Students will be required to maintain a sketchbook as well as complete various weekly sketching assignments. Fundamentals of perspective will be introduced and practiced throughout the class. Examples of how rapid viz techniques fit into the design process as a whole will be illustrated.

Prerequisites: DE 215
hybrid studio/critique(5hrs)
departmental elective

ID315 Industrial Design I

An introduction to the design process and problem solving techniques used in industrial design. The course presents the tasks required for research, preliminary concept sketching, design refinement, presentation, and fabrication possibilities. It also introduces the use of media and drawing techniques and basic scale model making.

Prerequisites: ID215, ID225, ID235, ID245
hybrid studio/critique(5hrs)
departmental required

ID316 Human Factors II - Culture

This course explores methods of observing human interaction within cultural contexts and focuses on the application of these methods and observations to product development.

Prerequisites: ID245
hybrid studio/critique(5hrs)
departmental elective

ID318 Branding - Product

This course examines brand development in Industrial Design through applied problems. It explores how industrial design is used to communicate and provoke "brand experiences" that resonate with consumers. The role of industrial design is recognized as a crucial tool in communicating and delivering an organization's brand value to end-users.

Prerequisites: ID245, ID315
hybrid studio/critique(5hrs)
departmental elective

ID320 Industrial Design III

Development of design projects in full four-phase programs: analysis and conceptual design refinement, final design and documentation, model, and presentation.

Prerequisites: ID345
hybrid studio/critique(5hrs)
departmental required

ID325 Manufacturing Process II

An investigation of specific problems in the manufacturing development of a product. The course uses a detailed case study of a new product from its inception to its completion. Topics include cost analysis and research into the technical problems of competitive manufacturing and marketing.

Prerequisites: ID235
lecture/seminar(3hrs)
departmental required

ID335 CAID Surface Modeling

The course explores visual communication through the use of 3D Computer Aided Industrial Design (CAID) surface-modeling programs. Design exploration and industry production tools are used to communicate design intent with clients, modelers, engineering departments, and manufacturers.

Prerequisites: ID225, ID205
hybrid studio/critique(5hrs)
departmental required

ID345 Industrial Design II

Integration of creative concepts with the development of visual communication skills, such as rendering and model making.

Prerequisites:
hybrid studio/critique(5hrs)
departmental required

ID355 Portfolio and Presentation

Directs students to develop a professional portfolio in this course. Basic elements of Illustrator, Photoshop, PowerPoint, Acrobat, web-based applications are introduced. Students are required to present complete portfolio piece at reviews.

Prerequisites: ID345
hybrid studio/critique(5hrs)
departmental required

ID365 Product Development Laboratory

Explores the process of bringing a product to fruition with special emphasis on the role of the industrial designer in new product development. The course will deal with the design and development of real products. Students work with local manufacturers and their product development groups.

Prerequisites: ID315, ID235, ID345, ID325
hybrid studio/critique(5hrs)
departmental required

ID392 ID Course Assistantship

Prerequisites:

ID398 ID Internship

Prerequisites:

ID399 ID Independent Study

Prerequisites:

ID3X8 Ethnography and Culture

This course explores methods of observing activities of human interaction within cultural context, and focuses on the applied use of these methods and observation activities to product development. The class looks at user culture within specific identifiable groups to aid in the development of design solutions for the needs of the end-user.

Prerequisites: ID245. ID315

hybrid studio/critique(5hrs)

departmental elective

ID425 Degree Project I - Research

A student selected and faculty approved project of significance.

Prerequisites: ID 320

hybrid studio/critique(5hrs)

departmental required

ID435 Degree Project II - Development

A student selected and faculty approved project of significance.

Prerequisites: ID 450

hybrid studio/critique(5hrs)

departmental required
