

## CAD Undergraduate Electives Courses

**Please note: List is subject to change**

Subject	Catalog	Course Title	Course Description	Requirement or Prerequisite
ARTH	135	History of Western Art: Ancient to Medieval	In this course students will examine the forms, styles, functions, and meanings of important objects and monuments dating from prehistory through the Middle Ages, and consider these works of art in their social, historical and cultural contexts. The primary goals of this course are to learn how to look, how to describe and analyze what we see, and how to use these skills to understand and explain how art visually expresses meaning. At the end of the term, students will have gained a foundational knowledge of the object, scope and methods of the discipline of art history. The knowledge obtained in this introductory course will also guide students in their own creative endeavors.	
ARTH	136	History of Western Art: Renaissance to Modern	In this course students will examine the forms, styles, functions, and meanings of important objects and monuments dating from the European Renaissance through the beginning of the twentieth century, and consider these works of art in their social, historical and cultural contexts. The primary goals of this course are to learn how to look and how to describe and analyze what we see, and to use these skills to understand and explain how art visually expresses meaning. At the end of the term, students will have gained a foundational knowledge of the object, scope and methods of the discipline of art history. The knowledge obtained in this introductory course will also guide students in their own creative endeavors.	
ARTH	369	20th Century Art: Since 1950	A critical study of the art and visual culture of the second half of the twentieth century. Major stylistic movements in Europe and America are examined with special attention to innovations in materials, subject matter, and philosophy. Central themes include: Abstract Expressionism, Pop Art, West Coast Junk, Funk and Beat, Nouveau Réalisme, CoBRA and Situationism, Arte Povera, Earthworks, Site Specificity, Allegory, Conceptualism, Minimalism, Feminism, Performance, Happenings, Installation, and New Media. Part II of a two semester historical sequence devoted to 20th century art.	Prerequisites: ARTH-136 or equivalent course.
ARTH	521	The Image	The image remains a ubiquitous, controversial, ambiguous and deeply problematic issue in contemporary critical discourse. This course will examine recent scholarship devoted to the image and the ideological implications of the image in contemporary culture. Topics will include: the modern debate over word vs. image, the mythic origins of images, subversive, traumatic, monstrous, banned and destroyed images (idolatry and iconoclasm), the votive and effigy, the mental image, the limits of visibility, the moving and projected image, the virtual image, image fetishism, the valence of the image, semiotics and the image, as well as criteria by which to assess their success or failure (their intelligibility) and their alleged redemptive and poetic power.	Prerequisites: ARTH-136 or equivalent course.

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ARTH	555	Topics in Medieval Art and Architecture: Body in Medieval Art	The medieval concept of the body differed radically from that of the modern world, and was substantially informed by theology, religious practices, and evolving traditions of classical philosophy and medicine. Students in this course will examine how complex and sometimes contradictory medieval ideas of the body determined its presence and depiction in the visual arts. Subjects to be considered include the interpellation of the body in architectural settings; ideals of physical beauty and ugliness; the body and the apocalypse; medieval naturalism and expression; saintly bodies; metaphors of the body; relics and reliquaries; portraits and presence; representing gender; medieval medical and anatomical depictions; and the monstrous body. Students will research medieval uses of the body in works of art found in Rochester collections, and will leave the course with a critical understanding of how medieval culture conditioned bodily representation.	
ARTH	568	Art and Technology: from the Machine Aesthetic to the Cyborg Age	Students will explore the link between art and technology in the 20th century with special focus on the historical, theoretical, and ideological implications. Topics include the body in the industrial revolution, utopian, dystopian, and fascist appropriations of the machine, engendering the mechanical body and machine-eroticism, humanism, the principles of scientific management, the paranoiac and bachelor machine, multiples, mass production, and the art factory, industrial design and machines for living, the technological sublime, cyborgs, cyberpunk and the posthuman. Key theorists to be discussed include: Karl Marx, Norbert Weiner, Reyner Banham, Siegfried Gideon, Marshall McLuhan, Michel Foucault, Deleuze and Guattari, Donna Haraway, and Martin Heidegger, as well as examples from film (Modern Times, Metropolis, Man with the Movie Camera and Blade Runner) and literature (Shelley's Frankenstein, and Zamyatin's We). Artists covered include: Tatlin, Rodchenko, Malevich, Moholy-Nagy, Léegr, Sheeler, Picabia, Duchamp, Calder, Ernst, Le Corbusier, Klee, Tinguely, Oldenburg, Rauschenberg, Warhol, Beuys, Kiefer, Lewitt, Fischli and Weiss, Acconci, Nam June Paik, Survival Research Laboratories, Bureau of Inverse Technology, Stelarc, Orlan, Dara Birnbaum, Roxy Paine, Marina Abramovic, Kac and Bill Viola.	Prerequisites: ARTH-136 or equivalent course.
ARTH	572	Art of the Americas	This is a survey course of native north and South American visual arts within an historical and anthropological framework. Included will be an examination of the development of principal styles of Ancient American architecture, sculpture, painting, and ceramics up to the 16th century when the Spanish conquistadors defeated the Aztec and Inca empires and imposed colonial rule. Consideration is also given to materials used, techniques of construction, individual and tribal styles, as well as to the meaning and function of various art forms within Native American societies.	

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CCER	124	Clay Studio Survey	This elective course will introduce students to ceramics as an artform. Subjects will include basic hand-building techniques, a variety of finishing processes, surface development, and historical and contemporary perspectives. Through assigned projects, students will demonstrate their enhanced understanding of ceramics. **Fee: There is a lab fee required for this course*.	Prerequisites: This class is restricted to students with 1st or 2nd year standing.
CCER	207	Mold Mechanisms	This course will concentrate on the fundamentals of mold making for the production of vessel-oriented objects. The student will focus on the technical experience and challenges of working with plaster, making single piece press molds to multiple piece complex molds. The students will also study clay materials and clay chemistry, to better understand composition in relation to firing and surface development. Supporting information relating to historical, cultural, and scientific concerns will be provided to broaden the students' perspectives of ceramic art, design, and industry, as well as its relationship to the larger world of art. **Fee: There is a lab fee required for this course**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CCER	212	Thrown Sculptural Forms	This course will introduce students to intermediate forming techniques used in the ideation and creation of both utilitarian and sculptural vessels. There will be a focus on form, surface development, and aesthetics. The student will gain experience with firing methodologies. The students will also work with material science to better understand clay and glaze chemistry. The historical, cultural, and technical concerns of ceramics will be explored. These experiences will broaden the students' perspectives of ceramic art and its relationship to the larger world of art. Students will be expected to research areas of interest within ceramic history or the field at large. This course will introduce students to the skills that are necessary for creating a variety of forms through assigned projects. **Fee: There is a lab fee required for this course**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CCER	530	Ceramics 3 Credit Elective: Handbuilding	This course is designed to give the student an understanding of a variety of processes involved in creating hand-built ceramic objects/sculpture. There will be an emphasis on manipulating clay using forming techniques such as pinch, coil building, slip casting and building solid and press molding. Supporting information relating to historical, cultural, and scientific concerns will be provided to broaden the students' perspectives of ceramic art and its relationship to the larger world of art. The student will be involved in many aspects of the clay process including making their own clay. Additional focus will be given to glaze application as well as firing and finishing processes. The historical, cultural and technical concerns of ceramics will be augmented with digital lectures, videos and critiques. . **Course fee of \$100 via student account**	

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CGLS	124	Glass Studio Survey	This open elective course will introduce students to the glass studio and to glass as a creative material. The content of the course will focus on introductory tools, techniques, and experimentation. The students will learn basic skills and safety procedures for the Hot Shop, Flame Shop, Kiln Shop, and the Cold Shop. **Fee: There is a lab fee for materials required for this course**	Prerequisites: This class is restricted to students with 1st or 2nd year standing.
CGLS	207	Molten Glass Practice II	This introductory hot glass course will allow students to discover and/or rediscover fundamental solid and blown techniques through a fresh lens of instruction and ideas. The cold shop will be an additional studio where students will learn to use the equipment to further their projects. Contemporary themes surrounding material experimentation, problem-solving and making a mess will be the springboards for prompted assignments.  There is a required out-of-class work time in glass studio at a minimum of 6-9 hours per week **Course fee of \$225 via student account**	Prerequisites: FDTN-132 or FDTN-232 or ILLS-209 or equivalent course.
CGLS	212	Kinetic Glass Practice	This course will introduce students to basic flame working processes. Solid working techniques with borosilicate glass will be covered as ways to activate ideas about making glass move. Basic processes of finishing and further manipulating annealed glass in the cold shop will also be introduced. Students will build technical understanding and material comprehension in the application of these skills within personally developed projects motivated by themes regarding mechanics, the experimental, and absurdity.  There is a required out-of-class work time in glass studio at a minimum of 6-9 hours per week **Course fee of \$225 via student account**	Prerequisites: FDTN-132 or FDTN-232 or ILLS-209 or equivalent course.
CGLS	530	Glass Processes	This course will introduce the beginner to the glass studio and to glass as a creative material. **Course fee of \$225 via student account**	
CMTJ	124	Metals and Jewelry Studio Survey	This course is an introduction to the field of metals and jewelry design. It is designed to develop fundamental skills in working with nonferrous metal through various metalsmithing processes and techniques. The course will focus on the understanding of materials and processes for the fabrication of small objects and jewelry. Decorative surface texture, pattern and forming techniques will be studied as well as cold connection, soldering and hollow construction. The course will also explore the use of alternative materials as a medium to create work along an assigned theme or conceptual framework. The student will learn to evaluate new techniques, materials and concepts to succeed in more advanced Studio Arts course.  **Fee: There is a materials fee required for this course and an additional course fee applied via SFS bill.	

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CMTJ	207	Design, Fabrication, and Forming	This course will introduce the student to intermediate silver soldering and gem setting. Students will explore forming techniques used in the fabrication of jewelry and functional objects. Students will acquire technical understanding and demonstrate the comprehension of materials through assigned projects motivated by current themes in contemporary art and jewelry design. Students will be instructed on the proper use and maintenance of the metals shop. Students will be required to conduct research on a historical metals topic, write a paper and give a presentation. Fee: There is a lab fee required for this course**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CMTJ	212	Fabrication, Casting, and Mold Making	The course focuses on the fundamentals of jewelry and metal design. Current styles and formal characteristics of jewelry and metal objects will be studied through a series of design problems. Students will learn casting and mold-making techniques for small scale objects and jewelry. Instruction will include vacuum assisted and centrifuge casting, sand casting, wax carving, replica casting, and silicone rubber mold making. Students will acquire technical understanding and demonstrate the comprehension of materials through assigned projects motivated by current themes in contemporary art and jewelry design. Students will be instructed on the proper use and maintenance of the metals shop. Students will be required to conduct research on a historical metals topic, write a paper and give a presentation. **Fee: There is a lab fee required for this course**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CMTJ	530	Form and Fabrication: Metals and Jewelry Design	This is an elective course providing an opportunity for introductory study in metals: either hollowware or jewelry. Development of metals techniques, design fundamentals and encouragement of personal expression will be encouraged. The student will learn to evaluate new techniques, materials and concepts. Slide lectures, technical demonstrations, field trips, hands-on experience and critiques will be used. **Course fee of \$100 via student account**	
CWFD	124	Woodworking / Furniture Design Studio Survey	This open elective course will introduce students to the furniture design studio and to wood as creative material. The content of the course will focus on the introduction of tools and techniques in woodworking and the creative design process. Students will learn basic skills and safety procedures for using hand tools and machine tools. **Fee: There is a materials fee required for this course and an additional course fee applied via SFS bill.**	

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CWFD	207	Intro to Woodworking and Furniture Design: Bench Seating	This course covers intermediate woodworking techniques associated with furniture design and construction. With a focus on aesthetics, structure, and functionality, students will design and construct furniture for seating such as a stools and benches. Topics covered will include intermediate joinery techniques, lathe turning, hand and power shaping, and the safe use of the multi-router, router table and rotary carving tools. These topics will support the focus on craftsmanship, technical knowledge and design development. **Fee: There is a materials fee required for this course and an additional course fee applied via SFS bill.**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CWFD	212	Intro to Woodworking and Furniture Design: Boxes and Containers	This course covers the fundamental techniques associated with the design and construction of wooden boxes. Students will design and build a series of functional containers giving careful consideration to the inherent properties of the material. Course topics will include lumber selection and processing, joinery layout and corner joint construction, as well as the safe use of hand and power tools. Lid and hinging options, as well as intermediate hand finishing techniques will also be introduced. Demonstrations, presentations, discussions, critiques, as well as individual meetings with students, will support the focus on craftsmanship, technical knowledge and design development. **Fee: There is a lab fee required for this course**	Prerequisites: FDTN-112 or FDTN-212 or FDTN-122 or FDTN-222 or FDTN-132 or FDTN-232 or FDTN-141 or IDDE-102 or ILLS-206 or ILLS-209 or INDE-102 or equivalent course.
CWFD	530	Furniture Design 3 Credit Elective	This is a class designed for non-majors, covering a fundamental introduction to techniques and aesthetics of woodworking. Topics covered include the use of select hand tools and woodworking power tools, wood as a material, its basic properties and fundamental processes of wood fabrication. The course includes a prescribed project based on five in-class contact hours. **Course fee of \$50 via student account**	
CWTD	530	Quilting Elective	This course will introduce the beginner to the textile studio and to quilting as a creative process. This can be repeated to allow students to develop additional skills. **Fee: There is a lab fee required for this course**	

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DDDD	101	Introduction to Modeling and Motion	This course is an introduction to the representation of form and motion in three-dimensional software. The course focuses on the development of visual and verbal vocabulary as a means of exploring, developing, and understanding composition and motion with digital geometry and in virtual spaces. Topics include the basics of lines, planes, contour, transforming lines into form, composing images with a software camera, interaction of light and surface, perspective, resolution of geometry, and rendering. Perception and visual thinking are emphasized in the development of projects. Projects will include modeling organic and inorganic forms, composition, level of detail, creation of spaces and motion. Structured assignments develop skills in concept generation, basic form making, techniques for creating motion, and craftsmanship. Emphasis is placed on workflow, teamwork, and the technical and aesthetic aspects of each project.	
DDDD	102	Introduction to Visual Design	This course is an introduction to the development of surface materials in three- dimensional software, using the basic concepts covered in Intro to Modeling and Motion. Principles of additive and subtractive color are developed as they relate to the interpretation of physical phenomena within a virtual world. The vocabulary expands to include the interaction of light and surface attributes including: color, relief, specularly, transparency, and more. Projects focus on using color, value and texture to enhance the representation of form and space. The basics of node based materials design is introduced. Additional techniques for UV layout are introduced. Concepts are introduced through lectures, discussions, demonstrations, research, assigned projects, and critiques. Assignments develop skills in surface design, lighting and rendering.	Prerequisites: This class is restricted to students who have completed DDDD-101 with a C or better or equivalent course.
DDDD	208	Anatomical Figure Drawing	Lessons introduced in lecture will be applied during figure drawing sessions. These lessons describe a proportion system developed by Robert Beverly Hale to define the human skeleton. After studying the skeleton, the course focuses on all major muscle groups and their influence on the human form.	
DDDD	526	Physical Interface Design	This course covers the use of basic electronics so that students can develop embedded systems or controllers for games, design environments with ambient intelligence, design interactive museum exhibits and point of purchase installations, or embed electronics in clothing. Students use micro controllers, sensors, switches, lights, and motors to implement their designs.	

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FDTN	111	Drawing I	This course is an introduction to the visualization of form, thought and expression through the drawing process. Concepts are introduced by lectures, discussions, demonstrations, research, and assigned projects. Designed to provide a broad introductory experience, students will experiment with a wide variety of media, tools, techniques and subjects to develop drawing expertise and problem solving skills related to design and composition. Course work will be assessed through critique, facilitating self-assessment, and the growth of both a visual and verbal vocabulary. The focus of the course is to provide awareness of the full range of ways in which drawing is used as a tool for both self-expression and communication.	
FDTN	112	Drawing II	This course is an introduction to the visualization of form, thought and expression through the drawing process. Concepts are introduced by lectures, discussions, demonstrations, research, and assigned projects. Designed to provide a broad introductory experience, students will experiment with a wide variety of media, tools, techniques and subjects to develop drawing expertise and problem solving skills related to design and composition. Course work will be assessed through critique, facilitating self-assessment, and the growth of both a visual and verbal vocabulary. The focus of the course is to provide awareness of the full range of ways in which drawing is used as a tool for both self-expression and communication.	Prerequisites: FDTN-111 or ITDI-211 or equivalent course.
FDTN	121	2D Design I	This course is a structured, cumulative introduction to the basic elements and principles of two-dimensional design. Organized to create a broad introductory experience, the course focuses on the development of both a visual and a verbal vocabulary as a means of exploring, developing and understanding two-dimensional compositions. Concepts are introduced through lectures, discussions, demonstrations, research, assigned projects and critiques. The course addresses a wide variety of media, tools, techniques both traditional and technological, and theoretical concepts to facilitate skill development and experimentation with process. Visual comprehension, the ability to organize perceptions and horizontal thinking that crosses other disciplines and theories, are key foundational components to the development of problem solving skills. Accumulative aspects of the curriculum included the exploration of historical and cultural themes and concepts intertwined with aspects of personal interpretation and experience. **Course fee of \$25 via student account**	



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FDTN	122	2D Design II	This course is the second semester of a sequential, structured introduction to the basic elements and principles of two-dimensional design. Organized to create a broad introductory experience, students will build upon the visual and a verbal vocabulary, media, techniques, skill development and processes acquired during the fall semester. This term will also focus on the comprehensive exploration of color theory as well as dealing with conceptualization and more advanced issues related to problem solving. Accumulative aspects of the curriculum included the exploration of historical and cultural themes and concepts intertwined with aspects of personal interpretation and experience. <b>**Course fee of \$25 via student account**</b>	Prerequisites: FDTN-121 or equivalent course.
FDTN	131	3D Design I	This course presents a progressive study over two-semester in terminology, visual principles, exploration, concept generation, process, and techniques of three-dimensional design. Using hands-on problem solving, student will develop an informed understanding of the 3D form and space with an emphasis on the elements and principles of visual design and their function as the building blocks and guidelines for ordering a 3D composition. A heightened awareness of form and space will be developed through lecture, assigned projects, and critiques. Students will also develop a personal awareness of problem seeking and solving, experimentation, and critical analysis. <b>**Note: May be taken as a one-semester offering**    **Course fee of \$50 via student account**</b>	
FDTN	132	3D Design II	This is the second-semester of a sequential course. The focus is on composing three-dimensional form and its relationship to space. Students will build on their prior term experiences, which include the introduction to 3D principles, materials, and building processes. Students will develop the sophisticated skill of conceptualization. More advanced problems will be assigned and students will have the opportunity to explore a wide range of material and process possibilities for their resolution. A heightened awareness of idea development and design research will be explored. Inclusion of 21st century themes in the arts of social cultural and community. <b>**Course fee of \$50 via student account**</b>	Prerequisites: FDTN-131 or equivalent course.

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FDTN	141	4D Design	4D Design introduces students to the basic concepts of art and design in time and space. Computers, video, photo, sound, and lighting equipment are used to create short-form time-based work. Students learn video, audio, camera, lighting, composite animation, and other skills relevant to all students in majors and programs required to take this course. The course explores elements of moving images, such as serial, narrative ordering, still and moving image editing, transitions and syntax, sound and image relations, and principles of movement. The course addresses the both historical conventions of time in art and recent technological advances, which are redefining the fields of fine art and design. In focusing on the relations between students' spacing and timing skills, 4D Design extends and supplements the other foundation courses, and prepares students for further work with time-based media.	
GRDE	106	Graphic Design Studio I	Introduction to basic visual communications in the field of graphic design. Lectures will cover graphic design topics and information ranging from typographic terminology and design principles to methods of visual organization. Assignments will be undertaken in the studio where hands-on introduction to graphic design studio skills and practices will occur. Through formal studies and perceptual understanding, including aesthetics, graphic form and structure, concept development problems and visual organization, students will design solutions to visual communication problems. Assignments will explore aspects of graphic imagery, typography, hierarchy, and layout. Students will refine their computer skills through applications requiring digital formats.	Prerequisites: FDTN-111 and FDTN-121 or equivalent courses.
GRDE	107	Motion Design	This course will introduce the concepts, principles and techniques of motion design and animation. Topics covered are planning and organization methods in the form of storyboards, kinetics, animation principles, sequencing, composition, visual variables, and forms of narrative storytelling. Focus is on the integration of time and media, such as illustration, photography, video, audio, animation and type, to communicate a moving message. This course will emphasize design from a problem-solving point of view and explores the production-timeline.	Prerequisites: FDTN-111 and FDTN-121 or equivalent courses.
IDDE	102	Design Drawing	This course will introduce students to drawing objects and three-dimensional space. Students will use the basics of perspective sketching, developing grids and mechanical perspective and orthogonal views. Students learn to depict various materials such as glass, metals, plastics, fabrics, wood, and other natural materials consistent with professional standards.	Prerequisites: FDTN-111 or equivalent course.
IDDE	206	ID Form	This course will emphasize the cognitive and technical skills necessary to manipulate material for the accurate three-dimensional communication of design intent. Projects focus on understanding the relationship of materials, manufacturing processes, products and the user. Special emphasis is placed on using non-toxic materials.	Prerequisites: FDTN-132 or FDTN-232 or equivalent course.

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IDDE	221	History of Industrial Design	This course explores the history of the industrial design profession as it evolved in response to the Industrial Revolution and industry's need for standardized approaches to aesthetics and design for the end user. Significant designers and their work are reviewed in the context of the economics and politics of the times. This course also surveys the history of modern furniture design from the late 19th Century to the present, including important design movements, individual designers and their significant furniture designs.	
IDDE	223	History of Modern Furniture	A study of Modern furniture and its most significant designers. Factors of style, materials, construction and ergonomics are examined in the context of time, place and purpose.	
IDEA	216	Calligraphy	This course will introduce students to a calligraphic hand for the purpose of acquiring a comprehensive understanding of letterform design and application for personal and professional application. Students will learn to letter using traditional and current tools and techniques. This course is open to anyone who is interested in learning more about lettering, the historical evolution of calligraphy as a precursor to typography and about past, present and emerging styles and practitioners in the fields of lettering, calligraphy and typography.	
IDEA	550	Experimental Workshop: Queer Sensibility	Whether subtle, obvious, blatant or subversive, "queer" influences have informed pop culture and the visual arts with a specific brand of creativity, vitality and spirit. The course will outline and explore the richness and variety of historical contributions to the arts and our culture in general by queer artists and thinkers. We will also link this to our evolving sense of traditional aesthetics. Students will engage in a range of activities including viewing videos, listening to music, reading, writing responses and essays relating to course topics, making and critiquing photographic work, field trips, and most of all discussion.	
IDEA	550	Experimental Workshop: Contemporary Artist Book Exploration	In this course undergraduate students will: learn to explore contemporary processes with photography through the form of the artist book, and be introduced to methods of incorporating photography into their artwork. Undergraduate students with all levels of experience are welcome.	
ILLM	507	Computer Applications in Medical Illustration	Students will learn to use industry-standard raster and vector illustration software to create images of assigned medical subjects. Students will also use page layout applications to combine digital images with text and other graphic elements. Course work emphasizes creation of illustrations to support medical education and publishing.	Prerequisites: FDTN-112 and FDTN-122 and MEDG-102 or equivalent courses.
ILLS	206	2D Composition and Color	This course will provide students with instruction and assignments to practice and apply compositional picture plane dynamics using representational subject matter. Students will explore the principles of composition through the use of formal visual elements such as line, shape, value and color to achieve effective two-dimensional compositions.	Prerequisites: FDTN-111 or ITDI-211 or SOFA-108 or equivalent course.

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ILLS	209	3D Applications: The Figure	Students will build upon their experience in 3D Design I including materials, and building processes, while constructing the human figure. Sculpted figures will portray accurate human anatomic structure, inference of function, and balance. **Course fee of \$30 via student account**	Prerequisites: FDTN-131 or equivalent course.
ILLS	213	Illustration I	Illustration I is the primary core course for illustration majors in their sophomore year. The students approach major elements of technique, application, and theory in relation to becoming illustrators. Studio sessions involve basic problem solving, anatomy, pictorial composition, media applications, figurative expression, use of reference tools, and illustrative techniques. Class structure allows demonstrations of processes and experimentation for assignment development. Group and individual critiques will be used to evaluate work.	Prerequisites: FDTN-111 or ITDI-211 or equivalent course.
ILLS	214	Anatomical Illustration	This course will provide an in-depth anatomical approach to drawing the figure. Students will obtain instruction and practice at drawing human anatomy including body and head postures, facial expressions, and hand gestures. Students will learn anatomical proportioning while drawing from observation from models to convey emotions such as anger, sadness, fear, disgust, etc. Students will also learn to use photo support references. Works will be created in black and white and in color media using light and dark, and warm and cool effects. **Course fee of \$30 via student account**	Prerequisites: FDTN-112 and FDTN-122 or ILLS-206 or equivalent courses.
ILLS	218	Dimensional Illustration I	This course will introduce students to an alternative style of illustration that will expand their thinking into the third dimension. Emphasis will be placed on planning and preparation of compositional elements in three-dimensional sculptural form and creative problem solving. Students will be encouraged to explore a variety of materials and techniques to complete projects.	Prerequisites: FDTN-112 and FDTN-122 or ILLS-206 or equivalent courses.
ILLS	219	Digital Illustration I	This course will provide students with methods of conceptualizing, organizing and executing illustrations using the computer. Projects will expose students to various types of digital techniques using vector and raster-based software applications, and a variety of input and output devices for the creation of professional level assignments. The course will emphasize conceptual problem-solving methodology and the language of visualization while providing a consistent foundation for digital illustration as it relates to professional illustration production. Color systems, digital terminology and pre-press file formats will be covered.	Prerequisites: FDTN-111 or ITDI-211 or SOFA-108 or equivalent course.
ILLS	468	Fantastic Illustration	This course will focus on the visual interpretation of subject matter specific to these specialized genres of illustration. Emphasis will be placed on creating a wide variety of finished illustrations. Critical thinking, visual criticism, and rhetoric will also be a required component of work generation and imaginative conceptualizing. Stylistic options and technical approaches to the subject matter will be emphasized.	

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INDE	346	History of Architecture, Interiors and Furniture II	A survey of the history of western architecture, interiors, and furniture. An overview of the components of style, construction, and material as represented by architecture, interior environments and furnishings from the Industrial Revolution to current day.	
ITDI	211	Drawing for Non-Majors	This class is devoted to developing basic skills in drawing. Formal art elements, mark making, observational skills, and personal expression will be stressed. Students will engage in issues of representation and abstraction through relationships of marks, lines and other graphic notations.	This course is open to all undergraduate students except those in FNAS-BFA, ILLM-BFA, ILLS-BFA, NMDE-BFA, GRDE-BFA, IDDE-BFA, INDE-BFA, 3DDG-BFA, CCER-BFA, GLASS-BFA, METAL-BFA, WOOD-BFA, PHIMAG-BFA, STAR-BFA and PHTILL-BFA.
ITDI	236	Figure Drawing	Figure drawing skills are taught in a traditional life drawing class format with emphasis on dynamic line quality, visual perception and contemporary approaches to figure drawing.	This class is open to all undergraduate students except for those in the FNAS-BFA or STAR-BFA major.
ITDI	242	Painting	Students begin a personal exploration of techniques in painting to advance their understanding, using color theory, building compositions and effective use of painting materials. Individual approaches to content range from abstraction through representational art, as students address contemporary visual arts issues.	This class is open to all undergraduate students except for those in the FNAS-BFA or STAR-BFA major.
ITDI	246	Painting and Collage	Students will be encouraged to experience and explore painting and collage processes and methods in this studio-based course. A study of the history, methods and materials of painting and collage will be presented and explored. Students establish strategies toward solving problems of composition, materiality and ideas related to successful imaging making.	
ITDI	301	Introduction to 3D Digital Creation	This course is an introduction to the creation of three-dimensional art and design in the digital realm. The course focuses on the development of visual and verbal vocabulary as a means of exploring, developing, and understanding composition and motion with digital geometry and in virtual spaces in three-dimensional software.	
PAIT	201	Introduction to Painting	This course will explore techniques in painting to advance students' understanding, such as color theory, building compositions and effective use of painting materials. Individual approaches to content range from abstraction through representational art, as students address contemporary visual arts issues. **Course fee of \$70 via student account**	Prerequisites: FDTN-111 or equivalent course.
PAIT	233	Painting for Non-Majors	This course will allow students to experience and explore the properties of oil painting and establish strategies toward solving problems of composition related to successful form content. **Fee: There is a lab fee required for this course**	This class is open to all undergraduate students except for those in the FNAS-BFA, ILLM-BFA, ILLS-BFA, GRDE-BFA, INDE-BFA, IDDE-BFA, NMDE-BFA, CCER-BFA, GLASS-BFA, METAL-BFA, STAR-BFA, and WOOD-BFA majors.
PAIT	460	Watercolor	This course will focus on the exploration of watercolor concepts and techniques to enhance skills and personal expression of the individual student.	Prerequisites: FDTN-111 or equivalent course.

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PAIT	571	Painting the Figure	This course will explore materials and techniques used in painting the human form. Theory and practice of color and drawing will be used to develop an understanding of how to portray the figure. Traditional and contemporary approaches to figurative painting will be explored. **Course fee of \$70 via student account**	Prerequisites: FDTN-111 or equivalent course.
PHAR	150	Introduction to Film Photography	An introduction to black-and-white still photography – technical, aesthetic, conceptual – for non-photography majors. Through weekly assignments, students will become familiar with the operation of a 35mm camera body/lenses and film processing/printing, while exploring basic principles of lighting, depth of field, principles of design, blur/stop motion, accurate exposure, and tone control. Lectures will address photographic aesthetics, in addition to historical, contemporary and innovative practices. Students will engage in the language of the critique through participation in discussions of photographic shooting assignments. Students are required to provide their own 35mm camera, film and processing, and photo paper. Non-Photo majors only. **Fee: Photo fee required**	
PHAR	160	Intro to Digital Photography	An introduction to digital photography – technical, aesthetic, conceptual – for non-photography majors. Through weekly assignments, students will become familiar with the operation of a DSLR camera body/lens, while exploring the basic principles of lighting, depth of field, design, blur/stop motion, accurate exposure, and image manipulation. Lectures will address photographic aesthetics, contemporary and historical practices, and professional applications. Students will learn to critique work through participation in discussions of photographic assignments. Students are required to have their own DSLR (digital single-lens reflex) camera. Non-photo majors only. This course maybe repeated. "Fee – There is a lab fee required for this course**	This course is open to all undergraduate students except those in PHTILL-BFA, PHIMAG-BFA , VISMED-BFA, PHIMTEC-BS, PHBM-BS and IMPT-BS.
PHAR	161	Intermediate Digital Photography for Non-Majors	This is the first required course for students enrolled in the photography minor. This course will reinforce and build upon the skills learned in Introduction to Digital Photography. It will emphasize aesthetics, craft, visual problem solving, skill development, and critical thinking skills. In this course, students will work in the studio and be introduced to the skills needed to use, create, and control artificial lighting as well as develop skills for modifying found light on location. Students will also make photographic prints. The curriculum will emphasize both craft and visual problem-solving skills necessary to achieve industry standards and prepare students for other courses available in the minor. Fee required for non-majors.	PHAR-160 or equivalent course.

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PHAR	212	Histories and Aesthetics of Photography II	The objective of this course, the second course of a two-semester sequence, is to present an overview of the multiple, intersecting histories and aesthetic practices of photography from the development of Modernism to the present, including the medium's transformation by digital imaging in the 21st century. Photography's applications within fine art, documentary, scientific, journalistic, commercial and vernacular practices will be investigated within a global perspective, but primary emphasis is placed upon developments and movements within the United States and Europe.	
PHAR	363	Black and White Photography I	This course, the first part of a two-semester sequence, will introduce students to the exposure and development of black and white film and the procedures for making high quality black and white photographic prints in a traditional darkroom with chemicals, safe lights and enlargers. Included in this course are 35mm, medium and large-format cameras, variables in making fine black and white prints and techniques for archival and museum quality processes and methods of display. Students must have access to a film camera with adjustable exposure controls. Each student will produce a finished portfolio of black and white fine prints.	Prerequisites: PHAR-101 or PHAR-160 or equivalent course.
PHFA	576	Preservation Care of Photographs	This course will expose students to the field of photographic conservation and professional practices. Even in the digital era, millions of film and paper images are in greater need of preservation and conservation than at any point in history. This course will be co-listed with graduate students also interested in this topic.	This class is restricted to undergraduate students with at least 2nd year standing.
PHPJ	307	Ethics and Law	This course will introduce students to the principles and theories of ethics and their application to editorial photography and photojournalism for mass communications. It will establish a basic understanding of philosophical ethics, social responsibility, and professional practices within protections and responsibilities of the First Amendment. The course will also review the legal issues relating to photographic practices and access to subjects. The course will examine a wide range of case examples used in classroom discussion and analysis to build a foundation for professional practice.	
PHPJ	375	Interactive Narrative Storytelling	This course will enable students to develop a strong foundation in elements of web production including learning basic mark-up and programming languages commonly used in web development, UI/UX design, typography and content editing. Students will complete the course by working collaboratively with students in other art, design, photographic, digital humanities or visual storytelling courses to develop effective and innovative ways to display and narrate content in digital environments. Students will learn usability testing, how to prepare images and video for online environments as well as understanding the importance of storytelling on mobile devices.	

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**Please note: List is subject to change**

PHPS	107	Photographic Technology II	This is the second course in a two-semester course based in the study of the technology of photography, with emphasis on applications to real world photographic problems. Among the topics studied will include color vision, Munsell color system, CIELAB system, color theory, color management, digital color balance during post-processing, digital tone reproduction, and digital workflows.	Prerequisite: PHPS-106 or equivalent course.
PHPS	207	Vision, Perception and Imaging	This course will explore the anatomical structure, function, and physiology of the human eye and brain and their relationship to vision, color, visual perception and imaging systems. The biology and physiology of the eye and psychology of visual perception will be explored. The concepts of depth perception in human vision as they relate to both two-dimensional and three-dimensional contexts will be examined. Relationships of image brightness, contrast and how visual processes lead to seeing will be addressed.	
PHPS	211	Photographic Optics	This required course will investigate advanced photographic technology, with an emphasis on the study of the components of photographic imaging systems. Geometrical optics, color management, printing technologies and video standards will also be studied. Working in a lab environment, students will evaluate how technology can be optimized and where its limitations might be found.	Prerequisites: PHPS-107 or equivalent course.
PHPS	217	Media Production & Technology	Media Technology explores the design, production and delivery of instructional media and marketing materials used in various industries. Students will plan and produce the content for media projects that integrate video, audio, still images, interactivity, two-dimensional animation and video. The course also explores the technology and production techniques involved in delivering digital content today. Additionally, the course will provide an introduction to basic instructional technology concepts that influence design, development and assessment decisions. The focus of classwork will be the production of media used in support of training and marketing activities commonly found in corporate, governmental, industrial, and scientific communities.	Prerequisites: PHBM-316 or FDTN-141 or equivalent course.
PHPS	336	e-Sensitometry	This course provides students with immersive experiences investigating the design of imaging systems and related technology with an emphasis on device characterization and image quality metrics and standards. Input and output standards including photographic and video systems will be covered in detail. Additionally, the course will explore measurable and subjective evaluations required for image quality.	Prerequisite: PHPS-106 or equivalent course.



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PRNT	201	Introduction to Printmaking	This course is a comprehensive introduction to non-toxic printmaking concepts and techniques. Organized to create a broad introductory experience, the course will focus on the expansion of problem solving and skill building within the context of printmaking. The course addresses a wide variety of media, tools, techniques both traditional and technological, and theoretical concepts to facilitate skill development and experimentation with process. Accumulative aspects of the curriculum include the exploration of historical and cultural concepts of materiality and the multiple intertwined with aspects of personal interpretation and experience. ** Fee: There is a lab fee required for this course**	Prerequisites: FDTN-111 or equivalent course.
PRNT	501	Printmaking	This course is designed to introduce advanced non-toxic printmaking concepts and techniques. The focus will be on non-toxic intaglio printmaking research and how to creatively apply techniques that will result in sophisticated works of art. Course may be repeated. **Fee: There is a lab fee required for this course**	Prerequisites: PRNT-201 or equivalent course.
SCUL	201	Introduction to Sculpture	This course is designed for students to develop ideas through investigation of basic sculpture practices, processes, and materials. Introduction to additive, subtractive, assemblage, and substitution processes of making sculpture are covered with expectations that students will develop these skills in relation to individual concepts and directions. **Course fee of \$160 via student account**	Prerequisites: FDTN-131 or equivalent course.
SCUL	211	Introduction to Expanded Forms	This course will focus on the diverse new forms of expression that have emerged in contemporary art including: installation, performance, video, light, sound, and numerous digital media. Students will research and produce artwork utilizing some of these new forms of personal expression. ** Fee: There is a lab fee required for this course**	Prerequisites: FDTN-141 or equivalent course.
SCUL	269	Sculpture for Non-Majors	This course will offer an introduction to sculpture and will expose students to basic concepts, forms, methods, and materials of the art form. The principles of space, volume, surface texture, multiple viewpoints, and gravity will be explored in three-dimensional projects. Students will learn how to use different processes, materials, and tools to create finished sculptures. **Course fee of \$160 via student account**	This class is open to all undergraduate students except for those in the FNAS-BFA, ILLM-BFA, ILLS-BFA, GRDE-BFA, INDE-BFA, IDDE-BFA, NMDE-BFA, CCER-BFA, GLASS-BFA, METAL-BFA, STAR-BFA, and WOOD-BFA majors.
SCUL	543	Foundry Practices	This course is designed to introduce or develop students' skills in casting metals with an emphasis on cast iron and the use of a cupola. Advanced pattern-making, mold-making, spruing, patination, and casting techniques will be introduced. Students will develop their concepts through cast metal sculpture. **Course fee of \$160 via student account**	Prerequisites: FDTN-131 or SCUL-269 or equivalent course.

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**Please note: List is subject to change**

SOFA	103	Introduction to Imaging and Video Systems	This course provides an introductory overview of the basic engineering and scientific principles associated with imaging systems. Topics covered include imaging physics, photographic science, human vision and perception, image capture and display technologies (both analog and digital), and digital image processing. This course is taught using both mathematical and phenomenological presentation and prepares students to proceed with more in-depth investigation of these fields in subsequent imaging science and motion picture science courses. Accompanying laboratory exercises provide hands-on experience with the presented concepts.	Co-requisite: MATH-171 or MATH-181 or MATH-181A or equivalent course.
SOFA	107	Principles of Animation	This course will introduce the concepts and mechanics of movement for animation, focusing on, but not limited to, character based movement. Animation principles will be introduced and applied using hand-drawn methods, which will serve as the foundation for their application in any desired medium. Weekly exercises will be recorded using standard animation software, and will be reviewed, discussed and open to group critique.	Prerequisite: SOFA-121 or equivalent course.
SOFA	108	Drawing For Animation	This course focuses on the mechanics of motion as applied to animated characters, both human and non-human. Working directly from a live model, costumed and nude, and also employing visualization techniques, students will apply figure-drawing skills along with gesture drawing, focusing on the correct representation of weight, energy and force in sequential poses. Specific attention is paid to improving drawing skills in order to create stronger storytelling poses for animated properties. A variety of drawn animation examples will be screened in class.	Prerequisite: SOFA-121 or equivalent course.
SOFA	121	Animation I	This class will introduce students to the gamut of animation thinking and making through classroom instruction and hands-on practical experience. Lecture and readings will emphasize the process, theory and practice of animated filmmaking with extensive film screenings to illustrate each technique and related aesthetics. Hands-on supervised studio sessions will guide students to an intuitive understanding of the process of producing animation and students will use this understanding to analyze various animated works. Each student will develop their personal vision through assigned projects utilizing the material discussed in class. Facilities fee required for non-majors.	
SOFA	127	Digital Filmmaking	Digital video is currently used in many fields. This course will teach the basic digital filmmaking skills (camera, editing, and sound) with an emphasis on storytelling skills using motion media. Students will work in small groups shooting and editing various projects in fiction, documentary, and experimental genres. Non-majors will be required to pay a facilities fee.	

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SOFA	227	Animation Pre-Production	This course will cover the planning process of an animated film from idea generation to the creation of a complete pre-production workbook and animatic. Students will also cover time management and production pipelines. Students will collect and produce short film ideas and learn to express them in a variety of methods.	Prerequisite: SOFA-121 or equivalent course.
SOFA	505	Acting for Film	A course in basic acting technique with an emphasis on the requirements of film production. Students are introduced to various approaches to acting through exercises and by performing in scenes from professional productions. Scenes are rehearsed outside of class, and then staged and critiqued during class time.	
SOFA	511	Film Sound Theory: Music	This course is one of three in the study of film sound theory. Through readings, focused group discussion, and the viewing of/listening to select films, the course promotes critical analysis of the varied and profound uses of music in sound design. Addressed is the history of music from the silent era to the modern score. The concepts studied include the modal changes in point-of-audition, and positioning across diegeses. Newer topics including audio-visualization and ventriloquism theory are also addressed.	
SOFA	541	History and Aesthetics of Animation	This course will explore the beginnings, the evolution, the creative and practical history of the animated film, including prehistory of animation, early film and animation history, major trends, artists, animation studios, theoretical distinctions and international identities in animation. Issues of animation aesthetics will also be elucidated through discussions, readings and reviews of exemplary films to emphasize the unique characteristics of the animated art form and how those characteristics are used as a means of interpretation and expression. Both orthodox and unorthodox animation will be highlighted. Films will be screened at every lecture.	Prerequisites: SOFA-121 or equivalent course and completion of First Year Writing (FYW) requirement.
SOFA	567	Digital Color Correction	This course offers project-based hands-on color correction with both da Vinci hardware and Adobe, da Vinci and Assimilate software. Introduction to basic color correction techniques and common tools in the industry will be provided. The course will progress from technical equipment setups and calibration to simple primary color correction to advanced secondary and color separation methods. Through assigned projects, students will be taught how to use tone and color to augment theatrical storytelling and add a dimension of professional finish to their films.	Prerequisites: SOFA-103 or NSSA-102 or equivalent course.

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SOFA	582	Alternative Frame by Frame	This course will give students a chance to explore three different approaches to stop-motion animation. The course will study and experiment with pixilation, time-lapse and relief animation with a "down-shooter." The techniques will expand the student's knowledge of traditional or character animation and present an alternative means of expression. Students will explore character or experimental approaches to animation with these non-traditional alternative approaches to single frame photographic animation. Students will study existing work with these techniques, analyze and discuss them with the instructor and then produce several examples of their own after instruction for each approach. A final project in the technique of the student's choice will be required.	This class is restricted to students with majors in CIAS and at least 3rd year student standing.
STAR	202	Crafts CADD Drawing	This is the second of a two-semester class covering basic CADD (computer assisted design and drawing) for both design and presentation. Topics covered will include a broad range of drawing types, three-dimensional modeling and presentation strategies. The course includes lectures, group discussions, independent study, homework, drawing and oral presentations. Each semester long course is structured as an independent unit.	
STAR	268	Bookbinding	This course is an introduction to the many different binding options ranging from saddle-stitched pamphlets to hardcover books, as well as the wide range of materials available. Contemporary procedures of finishing on demand publications are part of this course. Students are encouraged to bring with them some personal projects for binding. No prerequisites are required; however, good manual dexterity is desired. ** Fee: There is a lab fee required for this course**	
STAR	545	Art Exhibition Critique	This course will explore the role of the art exhibition and its effect on the discourse and practice of art. Course content will focus on contemporary and historical exhibition studies, individual and group projects. Students will also conduct site visitations and evaluation, and critique work in the context of exhibition.	
STAR	550	Top Studio Arts: Photo Print Processes	An exploration of photographic printmaking techniques, including serigraphy, Xerox Transfer, decal printing and sandblasting. Students will work on glass surfaces to experiment with a variety of images and the opportunity to work on paper surfaces will also be available. Work and discussions will focus on the relationship and relevancy of printmaking processes to photographic imagery. **There is a lab fee of \$65 required for this course**	This class is restricted to students with majors in CIAS and at least 3rd year student standing.

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STAR	578	Screenprinting	This course is a comprehensive introduction to silkscreen printing concepts and techniques. Organized to create a broad introductory experience, the course will focus on the expansion of problem solving and skill building within the context of screen-printing. The course addresses a wide variety of media, tools, techniques both traditional and technological and the theoretical concepts to facilitate skill development and experimentation with process. Accumulative aspects of the curriculum include the exploration of historical and cultural concepts of materiality and the multiple, intertwined with aspects of personal interpretation and experience. **Course fee of \$100 via student account**	
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