Art makes life meaningful. Design makes life possible. Together they make life wonderful. The work of artists and designers informs and forms cultures, benefits society, and empowers the global marketplace of ideas. The faculty in the Department of Art + Design seeks to prepare students for a rich and rewarding life making a significant difference in the lives of others. We study the fundamentals of knowing, thinking, making, and doing; you have an opportunity to learn to use ideas and influences, tools and techniques, and principles and processes of art and design. We provide a faculty, format, and facilities for a great experiential education in art and design within a major urban research university. You pursue your curiosity about, intentions toward, and obligations to the evolving world. Summer programs in Iceland, Ireland, Venice, Rome, Berlin, Budapest, Cuba, and Ecuador offer intensive studio experiences to augment your study with travel and creative work in the context of other cultures.

Whether you are studying design, media art, or game design, the Department of Art + Design seeks to cultivate your talents as a source of original ideas and expressions of an inner life, using classical, current, and emerging media. You are inspired and challenged to create powerful new works. You will gain visual literacy and fluency with professional art, design, and game design practices in the context of a liberal arts education. You can be transformed into a creative force, ready to realize your potential and create cultural value and social benefit.

Art, BA

A studio-based fine art program that offers a broad and deep exploration of what it means to be culturally aware, skilled, and productive, the Bachelor of Arts in Art balances studio courses in drawing/painting and digital media with art history and visual studies. Students’ education, experience, and training in understanding cultural practices take full advantage of the remarkable scope of the College of Arts, Media and Design. The focus of obtaining a well-rounded liberal arts education, within a broad study of the arts and humanities, is complemented by the study of a language and its cultural context and knowledge in the natural, physical, and social sciences. Some courses in this program are offered in Ireland, a cultural treasure house amid natural splendor, where students have an intensive and immersive experience. There, students make art in their own studios in an art school equipped with all the tools and resources an artist requires. Most important, ample elective choices include study-abroad programs and span the complete range of offerings of our college.

The concentration in visual studies incorporates art and design history with a cultural study of seeing. Understanding vision to be as much a product of lived culture and a phenomenon that is as dynamic, creative, and social as it is physical and biological, visual studies explores differing ways to interpret the visible world that surrounds us. Students are exposed to the history and theory of the visual arts and visual experience as they address connections between topics as wide-ranging as Leonardo da Vinci’s Mona Lisa and the computer interface used in Apple’s Lisa. Visual studies seeks to develop critical insight into, and understanding of, what is seen.

The Bachelor of Arts in Art is offered with a concentration in visual studies or without a concentration.

Design, BFA

Design is the practice-based discipline raising important questions about—and providing significant answers to—how we live. Designers are needed when we don’t know what is needed. Designers propose alternative futures and create new choices using design principles and processes to create, compose, and construct meaning in diverse knowledge fields. Designers seek a broad understanding of principles and systems of perception, communication, and action. Concentrations in design practices are graphic and information design, interaction design, and experience design.

Graphic design makes messages and meaning using visual form and the integration of text and image. It often has a persuasive intention and uses rules of visual composition, form, and pattern to enable storytelling or to create attention and an ambiance for consideration. Information design focuses on visualizing concepts and data to enhance human understanding of complex and vital knowledge.

Interaction design focuses on the creation of navigable interfaces and systems that allow audiences to achieve meaningful goals, connecting people to people and people to information and environments. Experience design is a holistic approach that utilizes investigation into human environments in specific situations to improve quality. Given an understanding of goals, needs, and desires, it seeks to improve the various contexts by identifying and studying events and how they can be turned into beneficial practices.

As intensive studio programs, the curricula balance theory and design history and theory with studio projects in all media. As a design analyst, inventor, interpreter, curator, and producer of information, interaction, and experience, students can integrate many facets of university and liberal arts education.

The Bachelor of Fine Arts in Design is offered with the following concentration options: experience design, interaction design, or graphic and information design.

Games, BFA

The Bachelor of Fine Arts in Games seeks to give students the skills to communicate ideas and emotions through interactive media. The focus of the BFA degree is to explore games as an aesthetic and expressive form through critical analysis and creative, reflective practice. To reflect emerging trends in the video game industry, including broader platforms and audiences and more distribution channels, students will be oriented toward developing games and playful media in an independent creative context, preparing graduates to become leaders within a growing segment of the game industry. Curriculum is geared to cultivating the students’ own unique creative voice through courses that apply theory analysis to game-making practice across a wide range of media. Students are exposed to a wide variety of genres and contexts, as well as different ways of thinking about games content, platforms, and production. BFA in games majors will have a minimum of four games...
courses in which they interact with and collaborate with students in the BS in computer science and game development major.

Media Arts, BFA
The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of animation, game, game art, photography, and video arts are offered with variations yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities offer the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3-D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree prepares students to meet the challenges of continuous change with adaptive ingenuity.

The Bachelor of Fine Arts in Media Arts is offered without a concentration or with the following concentration options: animation, photography, or video arts.

Studio Art, BFA
The Bachelor of Fine Arts in Studio Art is offered in partnership with the School of the Museum of Fine Arts at Tufts University (SMFA at Tufts) (https://smfa.tufts.edu), adjacent to the Northeastern campus. In this major, the studio art classes are taken at the SMFA at Tufts, which permits students to explore a wide range of artistic media including ceramics, drawing, film, glasswork, metalsmith, painting, performance, print and paper, sculpture, and sound in their extensive studio environments. Art and design history courses are taken in the department. In addition, students have access to all the elective courses, co-op, study-abroad programs, technology, and student resources that Northeastern students experience.

The Bachelor of Fine Arts in Studio Art degree is awarded by Northeastern.

Preapproved Template Programs
The Department of Art + Design offers preapproved template programs in the following areas:

- Experience design
- Game design
- Graphic and information design
- Interaction design
- Media arts
- Visual studies

Each template program may be paired with another preapproved template program to create a combined major, to see a list of current preapproved template programs, visit the combined majors webpage (https://registrar.northeastern.edu/article/combined-majors).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see “Student-Requested Combined Major (http://catalog.northeastern.edu/undergraduate/academic-policies-procedures/degrees-majors-minors/#stu-req).” For template program requirements, visit myNortheastern (https://my.northeastern.edu/welcome), click on the “Self-Service” tab, then on “My Degree Audit.”

Admission Requirements for Art + Design
There are specific admissions criteria for students entering majors in the Department of Art + Design. See “Admission Requirements for the College of Arts, Media and Design (http://catalog.northeastern.edu/undergraduate/admission/admission-policy-entrance-requirements/#adm-camd).”

Academic Progression Standards
Same as college standards.

Programs
Bachelor of Arts (BA)
- Art (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/art-ba)
- Communication Studies and Graphic and Information Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/communication-studies/communication-studies-graphic-information-design-ba)
- English and Graphic and Information Design (http://catalog.northeastern.edu/undergraduate/social-sciences-humanities/english/english-graphic-information-design-ba)
- Media and Screen Studies and Media Arts (http://catalog.northeastern.edu/undergraduate/arts-media-design/communication-studies/media-screen-studies-media-art-ba)
- Media Arts and Communication Studies (http://catalog.northeastern.edu/undergraduate/arts-media-design/arts-design/media-arts-communication-studies-ba)
- Theatre and Interaction Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/theatre/theatre-interaction-design-ba)

Bachelor of Fine Arts (BFA)
- Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/design-bfa)
- Games (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/games-bfa)
- Media Arts (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/media-arts-bfa)
- Studio Art (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/studio-art-bfa)
- Game Art and Animation (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/game-art-animation-bfa)

Bachelor of Science (BS)
- Architecture and Graphic and Information Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/architecture/architecture-graphic-information-design-bs)
• Business Administration and Design (http://catalog.northeastern.edu/undergraduate/business/business-administration-combined-majors/design-bs)
• Computer Science and Design (http://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-design-bs)
• Computer Science and Game Development (http://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-game-development-bs)
• Computer Science and Media Arts (http://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-media-arts-bs)
• Game Design and Music with concentration in Music Technology (http://catalog.northeastern.edu/undergraduate/arts-media-design/arts-media-design/music-concentration-music-technology-bs)
• Graphic and Information Design and Mathematics (http://catalog.northeastern.edu/undergraduate/arts-media-design/arts-media-design/graphic-and-information-design-mathematics-bs)
• Journalism and Interaction Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/arts-media-design/journalism/journalism-interaction-design-bs)
• Theatre and Interaction Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/arts-media-design/theatre/theatre-interaction-design-bs)

Minors
• Animation (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/art-design/animation-minor)
• Art (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/art-minor)
• Art History (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/art-history-minor)
• Experience Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/experience-design-minor)
• Game Art (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/game-art-minor)
• Game Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/game-design-minor)
• Graphic and Information Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/graphic-and-information-design-minor)
• Interaction Design (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/interaction-design-minor)
• Photography (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/photography-minor)
• Photojournalism (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/photojournalism-minor)
• Video Arts (http://catalog.northeastern.edu/undergraduate/arts-media-design/art-design/video-arts-minor)

Courses

Art + Media Arts

ARTD 1990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTD 2100. Narrative Basics. 4 Hours.
Explores narrative sequence and story development in a variety of story architectures and media combinations, including text, video, music, audio, and design. Uses lectures, in-class workshops, and collaborative projects to expose students to the critical role of narrative in society and interactive media, including games. Offers students an opportunity to develop an interactive media design document over the second half of the semester.

ARTD 2350. Photo Basics for Nonmajors. 4 Hours.
Offers a basic photography course that introduces students to the use of camera controls, computer-based image and file management systems, lighting, and final printing. Additionally, books on demand, slide shows, and image archiving are demonstrated and then explored by students. No previous experience is necessary. Does not fulfill major or minor requirements for students within the Department of Art + Design.

ARTD 2360. Photo Basics. 4 Hours.
Offers an introductory lecture/lab photography class. Explores the technical and theoretical concepts throughout the history of photography. The lab component of the course covers processing, editing, and output of images. Culminates in a final project designed to demonstrate both technical and conceptual knowledge of the medium.

ARTD 2361. Photo Tools. 1 Hour.
Offers an introductory photography lab designed to enable the student to acquire basic technical camera usage and digital capture. Explores photographic image management applications.

ARTD 2370. Animation Basics. 4 Hours.
Offers an introductory studio course that explores the creative potential of animation. Exposes students to a variety of traditional animation processes and techniques through lectures, demonstrations, and hands-on assignments. Provides an historical survey of animation art through the twentieth century. Emphasizes using the computer to develop concepts creatively while learning the fundamental skills of constructing animated images and forms.

ARTD 2371. Animation Tools. 1 Hour.
Introduces intermediate skills and software used in creating 3D animation. Explores modeling, surfacing, lighting, key framing, and rigging in this technology workshop.

ARTD 2380. Video Basics. 4 Hours.
Offers an introductory exploration into the moving image as an art form. Covers the fundamental technical and aesthetic aspects of contemporary video production. Emphasizes personal, experimental works from an individual point of view. Analysis of projects is directed toward the development of a personal voice.

ARTD 2381. Video Tools. 1 Hour.
Introduces intermediate skills and software used in capturing, manipulating, and editing video and audio in this technology workshop.

ARTD 2990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTD 3460. Photography 1. 4 Hours.
Continues ARTD 2360, spending significant time on idea generation and research based on contemporary theoretical principles. Explores digital capture and image management in conjunction with project development. Requires a final project based on individual research and the establishment of a concise point of view.
ARTD 3470. Animation 1. 4 Hours.
Introduces the fundamentals of three-dimensional computer animation. Class lectures and demonstrations are followed by substantial hands-on exploration. Students gain fundamental skills for modeling, surfaced, and animating. Projects progress from creating simple geometric objects to realistic organic characters. Basic systems for animating are introduced and explored.

ARTD 3471. Virtual Environment Design. 4 Hours.
Utilizes elements of story and game play in the design of both 2D and 3D environments, integrating architecture, landscape, and set dressing. Introduces real-time procedurally generated terrain and flora, asset optimization, and nonlinear path finding. Explores content ranging from historically accurate and contemporary hyperrealistic to stylized and fanciful.

ARTD 3472. Character Design for Animation. 4 Hours.
Focuses on the development of characters as they relate to game design and animation. Explores, through treatments and synopsis, theme-based character back story, rationale, and visual design. Integrates learning objectives of both 2D and 3D, optimized rigging, movement study, and accessory and prop design.

ARTD 3473. Animation for Games. 4 Hours.
Explores all areas of 3D game asset creation-animation, modeling, shading, effects, and their integration. Working in small groups, students have an opportunity to learn how to construct animated assets that work efficiently within a game programming environment. Encourages students to specialize in at least one area of asset creation.

ARTD 3480. Video: Sound and Image. 4 Hours.
Continues the study of video as an art form. Focuses on the dynamic relationship between sound and the moving image. Begins with audio exercises exploring various aspects of sound design that are integrated into an in-depth video production. Emphasizes the production of innovative video art with powerful visual imagery, complex editing rhythms, and creative sound design.

ARTD 3485. Experimental Video. 4 Hours.
 Constitutes an advanced video production and analysis course. Emphasizes the development of personal vision and building a working knowledge of contemporary experimental video art techniques. Offers students an opportunity to expand conceptual ideas and visual language skills by interrogating concepts of time, movement, light, and space within their exploratory working process. Visual research and discussion supplement the studio work.

ARTD 3990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTD 4530. Media Arts Degree Project 1. 4 Hours.
Explores the criticism and theory associated with digital art. Offers students an opportunity to apply this knowledge to research in one of the digital media (photography, animation, and video) in preparation for completion of their degree project.

ARTD 4565. Photography 2. 4 Hours.
Continues ARTD 3460 with intensive project research based on specific theoretical principles chosen by the student. Explores various photographic formats, digital scanning, and Web usage. Requires a final written theoretical and visual project for successful completion of the course.

ARTD 4570. Animation 2. 4 Hours.
Continues ARTD 3470. Focuses on seamless integration of animated three-dimensional models with digital photographic backgrounds. Continued emphasis on building comprehensive modeling, surfaced, and animation skills. Students develop original content based on course objectives. Complex systems for creating realistic movement are introduced. Exposes students to compositing and animation processes through lectures, demonstrations, and hands-on assignments.

ARTD 4575. Animation 3. 4 Hours.
Continues ARTD 4570. Focuses on building comprehensive modeling, animation, and compositing skills in this advanced studio course. Students explore creating special effects through seamless mixture of computer-generated imagery and digital video footage. Advanced compositing and lighting techniques are introduced and explored. Students create original characters using organic modeling and surfaced techniques. Exposes students to animation and compositing processes through lectures, demonstrations, and hands-on assignments.

ARTD 4577. Digital Sculpture and Model Making. 4 Hours.
Focuses on the potential of sculpture and model making as a means of creative expression and for the communication of visual ideas. Offers students an opportunity to develop formal and technical skills for digital sculpting and the application of those skills for creating tangible models. Explores traditional and digital modeling techniques and utilizes 3D scanning and 3D printing techniques for physical model construction. Examines the historic role of model making and prototyping in the development and creation of fine art, game art, animation, and product design. Students who do not meet course prerequisites may seek permission of instructor.

ARTD 4660. Studio Photography. 4 Hours.
Examines studio practices and lighting techniques. Offers students an opportunity to obtain a thorough understanding and working knowledge of contemporary practice in the photography studio. Includes comprehensive exercises and assignments with various types of lighting equipment.

ARTD 4661. Alternative Photographic Processes. 4 Hours.
Focuses on analog-based conventional black-and-white photography. Explores, demonstrates, and uses nineteenth- and twentieth-century photographic processes to explore alternative delivery systems for creative and professional applications.

ARTD 4670. Media Arts Degree Project 2. 4 Hours.
Continues ARTD 4530. Offers students an opportunity to research and produce a final semester project and a written thesis.

ARTD 4990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTD 5001. Art, Context, Action 1. 4 Hours.
Offers an advanced studio-seminar to foster the creation and understanding of contemporary interdisciplinary art, emphasizing its role in reflecting and shaping its social contexts. Course activities include viewing, reading, and discussion of key projects, theories, methods, and professional practices as they have evolved over time, as well as regularly scheduled critique of the students’ ongoing bodies of work. Experiential learning opportunities allow students to interact with practitioners, curators, and institutions in the field. Offers students an opportunity to grow as practicing artists, designers, and arts professionals.

ARTD 5002. Art, Context, Action 2. 4 Hours.
Continues the study of interdisciplinary arts theory and practice begun in ARTD 5001.
ARTE 2500. Art and Design Abroad: Studio. 4 Hours.
Offers an intensive studio course taken abroad and taught by an art history, design, or art faculty member. Exposure to regional and international artists, history, culture, museums, landscape architecture, galleries, material culture, and architecture provide a rich context for studying the history of art and design. Offers students an opportunity to understand narrative and visual components through detailed hands-on workshops and detailed creation of artistic formats, including design, text essays, photographic essays, temporary exhibitions, video art projections, and live performances as artifacts. May be repeated without limit.

ARTE 2501. Art and Design Abroad: History. 4 Hours.
Offers an intensive history course taken abroad and taught by an art history, design, or art faculty member. Exposure to regional and international artists, history, culture, museums, landscape architecture, galleries, material culture, and architecture provide a rich context for studying the history of art and design. Offers students an opportunity to understand narrative and visual components through detailed hands-on workshops and detailed creation of artistic formats, including design, text essays, photographic essays, temporary exhibitions, video art projections, and live performances as artifacts. May be repeated without limit.

ARTE 2990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTE 3901. Art and Design Special Topics. 4 Hours.
Offers an art and design course in which format and content are determined by the instructor. May be repeated up to five times.

ARTE 3902. Recitation for ARTE 3901. 0 Hours.
Convenes for additional viewing, discussion, study, and project-based application of course content.

ARTE 3990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTE 4901. Special Topics in Art and Design Studio. 4 Hours.
Offers an art and design course in which format and content are determined by the instructor. May be repeated up to five times.

ARTE 4970. Junior/Senior Honors Project 1. 4 Hours.
Focuses on in-depth project in which a student conducts research or produces a product related to the student's major field. Combined with Junior/Senior Project 2 or college-defined equivalent for 8 credit honors project. May be repeated up to five times.

ARTE 4990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTE 4992. Directed Study. 1-4 Hours.
Offers independent work under the direction of members of the department on a chosen topic. Course content depends on instructor. May be repeated without limit.

ARTE 4996. Experiential Education Directed Study. 4 Hours.
Draws upon the student's approved experiential activity and integrates it with study in the academic major. Restricted to those students who are using it to fulfill their experiential education requirement. May be repeated without limit.

ARTE 5901. Special Topics in Art and Design Studio. 4 Hours.
Offers an opportunity for the intensive study of specialized themes in areas of research in studio and aesthetics related to art and design. Instructor determines format and content. May be repeated up to five times.

Art - Fundamentals Courses

ARTF 1000. Art and Design at Northeastern. 1 Hour.
Introduces students to the intellectual and extracurricular opportunities within the Department of Art + Design and the College of Arts, Media and Design. Exposes students to the cultural vibrancy of Boston with the goal of building networks that facilitate a supportive learning community. Familiarizes students with their major and introduces them to the resources at the university and across the city to help them succeed academically. Provides grounding in the culture and values of the university community and seeks to help students develop interpersonal skills.
ARTF 1120. Observational Drawing. 4 Hours.
Focuses on developing an understanding of the structure of object and figure through freehand drawing. Offers students an opportunity to explore a wide range of materials, including wash, charcoal, and pencil.

ARTF 1121. Conceptual Drawing. 4 Hours.
Seeks to expand the student’s knowledge and skills through a mark-making process. Offers students an opportunity to begin to understand the relationship between form and meaning while relating the drawing process to broader concepts of communication.

ARTF 1122. 2D Fundamentals: Surface and Drawing. 4 Hours.
Offers an opportunity to discover and research basic principles, language, and concepts inherent in two-dimensional visual systems. Offers students an opportunity to learn to think critically, analyze, and apply basic principles to design and art projects. In a studio workshop setting, three primary phases explore art, design, and photography.

ARTF 1123. 2D Tools. 1 Hour.
Introduces skills and software, such as Adobe Photoshop and Illustrator, used in creating and manipulating pixel- and vector-based images, in a technology workshop format.

ARTF 1124. 3D Fundamentals: Structure and Drawing. 4 Hours.
Continues ARTF 1122. Explores three-dimensional form. Examines principles including mass, volume, line, plane, and texture. Introduces basic materials and structure through constructing models and prototypes. Presents sequential exercises with simple eye/hand skills and form recognition. Explores complex projects that require an understanding of context, content, and developing original forms.

ARTF 1125. 3D Tools. 1 Hour.
Introduces skills and software used in creating 3D forms with the computer. Explores basics of 3D modeling, surfaceing, lighting, and rendering in this technology workshop.

ARTF 1140. Understanding Art. 4 Hours.
Offers an introduction to the characteristics of the visual arts including painting, sculpture, graphic arts, and architecture. Studies various examples of works of art as means of understanding style and techniques. Includes visits to museum collections and contemporary art galleries.

ARTF 1990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTF 2220. 4D Fundamentals: Sequence and Drawing. 4 Hours.
Explores time-based art and design in an introductory lecture/studio format. Introduces formal, narrative, and alternative concepts for creative time-based communication. Assignments investigate video, animation, and a mixture of media in a screen based context.

ARTF 2221. 4D Tools. 1 Hour.
Introduces skills and software used in animating 2D and 3D images, graphics, and forms. Explores the basics of key framing, layering, parenting, 3D modeling, surfaceing, and rigging in this technology workshop.

ARTF 2223. 5D Fundamentals: Experience and Drawing. 4 Hours.
Explores the language of interactive experience as a compelling medium to communicate meaning. Examines how variables within the environment can change how we inhabit an experience physically, conceptually, and emotionally. Studies historical and contemporary examples of art and design projects designed as exchanges or experiences. Incorporates drawing as a means to understand the present and project potential future experiences.

ARTF 2224. 5D Tools. 1 Hour.
Introduces skills and software used in creating basic Web-based content. This technology workshop introduces software using HTML and style sheets such as Adobe Dreamweaver.

ARTF 2990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTG 1250. Design Process Context and Systems. 4 Hours.
Explores common design practices, principles, and vocabularies, introducing the design process as a method of inquiry and problem solving through studio projects. Emphasizes the importance of an awareness of audience and context in the creation of meaningful communications and experiences. Explores the practice of design as an iterative process, offering students an opportunity to obtain an understanding of the value of systems thinking and the importance of feedback and exchange as a means for assessing the quality of design's effectiveness in helping users achieve their goals.

ARTG 1255. Design Process Context and Systems Abroad. 4 Hours.
Explores common design practices, principles, and vocabularies, introducing the design process as a method of inquiry and problem solving through studio projects. Emphasizes the importance of an awareness of audience and context in the creation of meaningful communications and experiences. Explores the practice of design as an iterative process, offering students an opportunity to obtain an understanding of the value of systems thinking and the importance of feedback and exchange as a means for assessing the quality of design's effectiveness in helping users achieve their goals. Taught abroad. May be repeated without limit.

ARTG 1990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTG 2250. Typography 1. 4 Hours.
Introduces typography as the basis of graphic design and visual communication. Guides students through an understanding of letterforms, words, sentences, and text as both image and information. Studies form, context, and visual meaning. Introduces use of the typographic grid and issues of hierarchy and legibility through assigned projects, readings, and lectures. Includes the historical evolution of typefaces and their classification as a rational system.

ARTG 2251. Type Tools. 1 Hour.
Offers students an opportunity to acquire technical software skills used in typesetting, such as Adobe InDesign, in this introductory lab.

ARTG 2252. Graphic Design 1. 4 Hours.
Explores graphic form and vocabulary through the development of icons and symbols. Applies graphic design principles to the correlation of forms with their function, content, and context. Incorporates a variety of media as visual communication elements.
ARTG 2260. Programming Basics. 4 Hours.
Exposes students to basic programming design for user interfaces. Offers students an opportunity to become familiar with the logical elements of programming languages. Through lectures, hands-on in-class exercises, and modular projects, explores Web-based design and programming solutions for managing interaction and animation.

ARTG 2300. Business Literacy for Design and Media. 4 Hours.
Provides students with a toolkit that offers insight into how companies operate, what their managements do, and how success is measured. Exposes students to creative rights issues and professional paths they might pursue—employee, freelancer, and entrepreneur. Evaluates various company cultures and offers students an opportunity to assess their personal career fit.

ARTG 2400. Interaction Design 1: Responsive. 4 Hours.
Applies information design principles to Web and mobile interface design. Explores user-centered interface and programming design strategies for the delivery of responsive data-driven websites. Discusses audience definition, content development, information structuring, and navigation. Emphasizes tools and strategies for design, such as site maps, wireframes, prototypes, usability testing, and iterative development. Offers students an opportunity to obtain meaningful interactive experiences through team-based projects.

ARTG 2401. Interaction Design Tools. 1 Hour.
Introduces skills and software used in designing and developing Web-based interactive environments. Explores Web-page scripting and tagging, CSS-based design coding, options for front- and back-end page design connections, and alternative technologies.

ARTG 2990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTG 3250. Physical Computing. 4 Hours.
Explores the communication between the physical world and the interactive, computer-based interface. Examines the potential of reactive analog and digital devices embedded within the physical realm. Offers students an opportunity to use simple kit sensors and indicators designed to enable student teams to create interfaces triggered by gesture, bodily movement, physical forces, and other tangible actions. Concludes with discussions of more complex interactive devices, the relationship between physical computing and robotics, and possible future directions.

ARTG 3350. Typography 2. 4 Hours.
Continues ARTG 2250, exploring structures and hierarchies through increasing typographic complexity. Investigates meaning, legibility, and readability with an emphasis on voice, organization, sequence, and the typographic grid.

ARTG 3351. Time-Based Design. 4 Hours.
Introduces principles of time-based media—such as anticipation, interval, succession, and rhythm—through a series of analog and digital projects. Explores the potential of communicating information over time with a focus on kinetic typography and visual/sonic narratives. Examines concepts from film, music, and other related time-based arts through assignments, lectures, and student presentations.

ARTG 3450. Graphic Design 2. 4 Hours.
Explores the conceptual potential inherent in the merging of words/text with images/symbols to achieve a level of communication that exceeds the sum of visual and verbal components. Examining how the relationship of verbal and visual content can enhance meaning and comprehension, students identify a social issue of personal relevance and create a visual campaign targeting a core audience. Through a process including projects, readings, and lectures/discussions, students research, frame concepts, explore visual decisions, and determine appropriate deliverables.

ARTG 3451. Information Design 1. 4 Hours.
Introduces basic concepts, methods, and procedures of information design with a focus on mapping information. Students investigate visual systems and information structures such as maps, graphs, charts, and diagrams. Emphasizes the creative process of organizing, visualizing, and communicating data by making complex information easier to understand and use.

ARTG 3460. Identity and Brand Design. 4 Hours.
Addresses the origins, significance, and consequence of identity and branding expressions, in diverse media, in terms of personal, cultural, and commercial values. Using design research and studio methods, a series of exercises explores expressions of individual and collective identity. Offers students an opportunity to work in teams to develop branding projects in a process designed to increase their capacity to create effective brand expressions and analyze semiotic significance and cultural and economic value. Critique of work and presentation of concepts of identity and brand seek to sharpen students’ skills and challenge their ideas about brand. External critique seeks to create valuable tests of bias and assumptions, while principles of managing attention and trust seek to build the ability to function as a brand steward in actual practice.

ARTG 3462. Experience Design 1. 4 Hours.
Investigates a wide range of design research methods and means of representing user intentions and actions in order to develop coherent designs based on the needs of the user. Includes use of context assessment, user experience audits, and scenario development as means to understand the motivations, behaviors, and values of audiences and participants.

ARTG 3463. Experience Design 2. 4 Hours.
Continues ARTG 3462 processes and strategies for creating compelling human-centered experiences. Offers students an opportunity to use design processes from multiple disciplines to develop real-world solutions.

ARTG 3465. Experience Design 1 Abroad. 4 Hours.
Investigates a wide range of design research methods and means of representing user intentions and actions in order to develop coherent designs based on the needs of the user. Includes use of context assessment, user experience audits, and scenario development as a means to understand the motivations, behaviors, and values of audiences and participants. Taught abroad. May be repeated without limit.

ARTG 3700. Interaction Design 2: Mobile. 4 Hours.
Explores user-centered interface design for information exchanges using handheld and mobile devices. Studies the potentials for leveraging both the social and locative possibilities of mobile devices through research, discussions, and project assignments.

ARTG 3990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.
ARTG 4550. Design Degree Project 1. 4 Hours.
Draws on a range of theoretical and critical texts that address current issues and research methodologies in graphic design. This course is writing intensive and offers students an opportunity to complete weekly writing assignments and to visit local design studios, galleries, and museums. Writings and discussions are designed to lead to identification of a focus for ARTG 4551.

ARTG 4551. Design Degree Project 2. 4 Hours.
Forms the graphic design major capstone together with ARTG 4550. This intensive research-driven studio explores the realm of designing authorship. A single project theme extends in phases through an entire term to mirror the development sequence of complex professional design projects. Essential to the process is that the medium is not predetermined. Offers students an opportunity to investigate a topic of their choice, author and edit content, and determine the most effective medium for their message, which they design to resonate with a specific audience. Central to the course is a substantive written problem definition and proposal designed to integrate each student's academic and design experience.

ARTG 4552. Information Design 2. 4 Hours.
Builds on concepts from ARTF 2223 and ARTG 3451. Offers students an opportunity to develop strategies for structuring and communicating complex information to increase understanding through dynamic states, which are controlled through the interaction of end users. Explores possibilities offered by interfaces that mediate between a person and information space through research, projects, readings, and discussions.

ARTG 4553. Environmental Information Design. 4 Hours.
Explores visual communication as experienced in the time-space continuum. Projects investigate social issues that contribute to shaping the concept of spaces, such as public art installations, interpretive exhibits, and wayfinding.

ARTG 4554. Typography 3. 4 Hours.
Offers an advanced course exploring a variety of typographical solutions, including expressive formal and complex content-based projects.

ARTG 4700. Interaction Team Degree Project 1. 4 Hours.
Encompasses the definition, research, planning, and proposal of a large-scale project in graphic, interaction, or experience design. Guides students in interdisciplinary teams in the process of investigating and developing a topic of their choice, from defining audience to authoring and editing content and determining the most effective medium to resonate with a specific audience and context. A central aspect is writing a substantive problem definition and proposal that integrates each student's academic and design expertise. This course is the first of two courses in a capstone sequence. The project concept and preliminary groundwork are completed in this course in preparation for final design and production the following term in ARTG 4701.

ARTG 4701. Interaction Team Degree Project 2. 4 Hours.
Continues ARTG 4700. Guides the completion of the capstone project initiated in ARTG 4700 through a design process of prototyping, iteration, realization, testing, implementation, and presentation.

ARTG 4990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTG 5100. Information Design Studio 1: Principles. 4 Hours.
Explores the theories and practices of information design through studio projects. Investigates visual systems and information structures such as maps, timelines, charts, and diagrams. Emphasizes the creative process of organizing, visualizing, and communicating data by seeking to make complex information easier to understand and use. Requires graduate standing or permission of program coordinator or instructor.

ARTG 5110. Information Design History. 4 Hours.
Investigates the history of visualization practices across disciplines and in relation to technology developments. Critically examines seminal visualizations in social, cultural, and technological contexts by means of discussions and writing activities in a seminar format. Requires graduate standing or permission of program coordinator or instructor.

ARTG 5120. Research Methods for Design. 4 Hours.
Examines qualitative and quantitative research methods pertinent to design. Through discussion and writing activities, offers students an opportunity to investigate varied inquiry toward the development of researchable questions, argument formation, and assessment methodologies. Students who do not meet course restrictions may seek permission of instructor.

ARTG 5130. Visual Communication for Information Design. 4 Hours.
Explores graphic and typographic theory, principles, and practices. Introduces students to visual communication design with a primary focus on typography as the fundamental means of conveying content. Readings locate design and typography within the larger history of visual art and writing development. Covers methods of organizing content through hierarchy and spatial organization of grid structures. Considers relationships between positive and negative space, depth perception, transparency, and color theory. Requires graduate standing or permission of program coordinator or instructor.

ARTG 5150. Information Visualization Principles and Practices. 3 Hours.
Introduces information visualization from theoretical and practical perspectives. Defines the information visualization domain and advances principles and methods for the effective visual representation of data. Contextualizes the field from a historical perspective. Presents the perceptual and cognitive tasks enabled by visualizations. Studies an extensive range of visualization models. Illustrates good and bad practices in visualization with real-world examples. Introduces concepts in computer programming in an information visualization context.

ARTG 5310. Visual Cognition. 4 Hours.
Introduces human visual cognition as it applies to information design and visualization. Focuses on perception, attention, pattern recognition, information acquisition, memory, and creation of mental models. Explores reasoning, cognition, decision making, and problem solving in relation to visual artifacts. Students who do not meet course restrictions may seek permission of instructor or program coordinator.

ARTG 5320. Statistics Basics for Designers. 4 Hours.
Introduces statistical concepts and methods in statistical reasoning and analysis. Topics include data mining, comparison, assessment, and delivery. Students who do not meet course restrictions may seek permission of instructor or program coordinator.

ARTG 5330. Visualization Technologies 1. 4 Hours.
Introduces programming languages that allow computational analysis and digital delivery of dynamic information. Examines implications of environmental and personal sensor data sources, mobile collection and analysis of data, real-time networked data sets, and social use of shared data visualization tools. Students who do not meet course restrictions may seek permission of instructor or program coordinator. May be repeated once.
ARTG 5600. Experience Design Studio 1: Principles. 4 Hours.
Offers students hands-on project development of systems, artifacts, communication, environments, or service offerings with a focus on the unique personal experience of the audience exposed to the project. Experience design is a holistic approach to design that investigates the human experience in specific situations to improve its quality, given an understanding of human goals, needs, and desires. This course provides a context for a cohesive experience through interaction, movement, and understanding, which builds on previous knowledge of audiences and applications. Presents students with design methods and processes for experience design by developing a semester-long project. Offers students an opportunity to develop competency in tools used to create the various elements that create the context for experiences in specific situations and events including interaction, artifact, and environment design. Understanding a design process and knowledge of studio critique practices is recommended.

ARTG 5610. Design Systems. 4 Hours.
Explores a systems-based perspective on our environment by addressing questions that are fundamental to design practice: What is a system, and what are the different types? How do we observe, analyze, and represent systems? What interactions can we have with systems and what are the different types of interaction? Explores structures and processes for the design of systemic relationships between people, artifacts, environments, and activities. Systems may be physical, virtual, social, or a combination. Through discussion, writing, diagramming, and project exercises, offers students an opportunity to learn principles of systems theory and explore the connection between design methods and systems thinking. Students who do not meet course restrictions may seek permission of instructor or program coordinator.

ARTG 5620. Notational Systems for Experience. 4 Hours.
Examines theoretical foundations, concepts, and methods of visual notational systems used in the effective analysis and communication of existing experiences and in the envisioning of conditions for future experiences. Notational systems are sets of graphic signs and codes that denote or prescribe specific actions, forces, operations, events, or performances that occur over time. Students engage with concepts and models through readings, discussion, case study analyses, and speculative design projects. Evaluates the role that notational systems play in documenting, analyzing, and understanding the human goals, actions, behaviors, and perceptions key to experience and assesses their value in designing for agency and new experiences. Students who do not meet course restrictions may seek permission of instructor or program coordinator.

ARTG 5640. Prototyping for Experience Design. 4 Hours.
Explores tools, technologies, and processes to create prototypes of artifacts, environments, and interactive systems for experience design projects. Offers students the opportunity to learn, use, experiment with, and test prototypes using a wide range of state-of-the-art prototyping technologies to further their understanding of multiple strategies and techniques of prototyping for experience design. Tools and techniques change over time but typically include laser cutting, 3D printing, CNC machining, electronics prototyping, augmented reality, machine tools and 2D forming, fast prototyping, and hand tools.

Art - History Courses

ARTH 1100. Interactive Media and Society. 4 Hours.
Offers a critical historical survey of interactive media from analog to digital techniques and from physical to virtual spaces. Examines the social, ethical, and cultural impact of interactive media. Concludes with a study of current issues and directions in interactive media. Through weekly lectures, research projects, and critical analyses, offers students an opportunity to consider current and historical aspects of interactive media and design.

ARTH 1110. Global Art and Design History: Ancient to Medieval. 4 Hours.
Investigates the history of painting, sculpture, design, and related arts through a study of masterpieces from prehistoric times to the end of the Middle Ages. Offers students an opportunity to become familiar with specific works, styles, and terminology of art and design and to develop an ability to communicate about the visual arts.

ARTH 1111. Global Art and Design History: Renaissance to Modern. 4 Hours.
Explores the evolving history of visual art and architecture from 1300 through the 20th century. Combines integrated modules and activities together with observation and analysis of art and architecture, with the goal of interpreting cultures and understanding societies. Offers students an opportunity to learn specific works, styles, and specialized terminology, thereby developing an ability to communicate about the visual arts.

ARTH 1121. Recitation for ARTH 1111. 0 Hours.
Convenes for additional viewing, discussion, study, and project-based application of course content.

ARTH 1400. The Science of Art, the Art of Science. 4 Hours.
Explores the intersection of science and art in Renaissance Italy, and the broad themes of observation, imagination, and invention. Topics include engineering, anatomy, botany, zoology, cartography, perspective and ecology. Observation will be considered both as a historical topic and as a practical method in the course. Students have an opportunity to hone their skills in both writing and drawing through weekly visits to the Museum of Fine Arts and study of original works of art.

ARTH 1990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

ARTH 2210. Modern Art and Design History. 4 Hours.
Surveys modernist movements from early to mid-20th century. Emphasizes the reciprocal evolution of art and design within cultural and social contexts.

ARTH 2211. Contemporary Art and Design History. 4 Hours.
Offers a study of contemporary culture in an art and design survey from mid-twentieth century to present. Presents a thematic approach to late-modern and postmodernist movements, focusing on interrelationships among media.

ARTH 2212. Survey of the Still and Moving Image. 4 Hours.
Examines the history of still and moving images in relationship to other artistic, documentary, and journalistic practices.
**ARTH 2213. Nineteenth-Century Art. 4 Hours.**

Presents a selection of major works and movements of art from 1780 to 1900. Studies the development of Neoclassicism, Romanticism, Realism, naturalism, Impressionism, Post-Impressionism, and Art Nouveau in terms of major changes in society such as industrialization, urbanism, colonialism, scientific discoveries, nationalism, Japonisme, gender politics, and the workings of patronage. Themes include the relationship between revolution and art, heroes and antiheroes, the nature and responsibility of citizenship, the seeming inevitability of war, urbanism, and the intersection with social issues. Field trips and museum visits further enhance students' appreciation of the historical context for interpreting cultures and understanding societies, thereby making our engagement with the art more enduring.

**ARTH 2215. History of Graphic Design. 4 Hours.**

Follows a chronological survey of graphic design from 4000 BC to the beginning of the 21st century, emphasizing work from 1880 to 2000, and the relationship of that work to other visual arts and design disciplines. Demonstrates how graphic design has responded to (and affected) international, social, political, and technological developments since 1450. Traces developments in the areas of typography and publication, persuasion, identity, information, and theory.

**ARTH 2220. Recitation for ARTH 2210. 0 Hours.**

Convenes for additional viewing, discussion, study, and project-based application of course content.

**ARTH 2221. Recitation for ARTH 2211. 0 Hours.**

Convenes for additional viewing, discussion, study, and project-based application of course content.

**ARTH 2225. Recitation for ARTH 2215. 0 Hours.**

Convenes for additional viewing, discussion, study, and project-based application of course content.

**ARTH 2990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ARTH 3990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ARTH 4990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ARTH 5100. Contemporary Art Theory and Criticism. 4 Hours.**

Introduces the major critical and philosophical approaches that have transformed the reception, interpretation, and production of contemporary art since the 1960s. Examines a range of key interpretive methodologies—including modernism, postmodernism, psychoanalysis, feminism, Marxism, poststructuralism and deconstruction, critical race theory, visual studies, and globalization—designed to provide practitioners with the means to critically frame their own art making within contemporary debates about the meaning and social functions of art.

**ARTH 5200. Issues in Contemporary Art. 4 Hours.**

Introduces the major artists, movements, and issues that have redefined contemporary art since the late twentieth century. Examines, both critically and historiographically, topics such as conceptualism, earth art, appropriation, installation, street art, identity politics, activist art, performance, globalization, relational art, and new media. Offers an overview aimed at helping students negotiate the relationship between their own artistic practice and global art worlds.

**ARTH 5400. Contemporary Visual Culture. 4 Hours.**

Explores the implications of the erosion of the traditional boundary between fine art and mass culture for artistic theory and practice as well as art's place in an increasingly globalized world. Situates contemporary artistic practice within the broader context of visual culture—including film, television, advertising, architecture, and the Internet.

**ARTH 5902. Special Topics in Art and Design History. 4 Hours.**

Offers an opportunity for the intensive study of specialized themes in areas of research in art history, aesthetics, or critical studies. Format and content are determined by the instructor in this elective in Art + Design history. May be repeated up to five times.

**ARTH 5400. Contemporary Visual Culture. 4 Hours.**

Explores the implications of the erosion of the traditional boundary between fine art and mass culture for artistic theory and practice as well as art's place in an increasingly globalized world. Situates contemporary artistic practice within the broader context of visual culture—including film, television, advertising, architecture, and the Internet.

**ARTH 5902. Special Topics in Art and Design History. 4 Hours.**

Offers an opportunity for the intensive study of specialized themes in areas of research in art history, aesthetics, or critical studies. Format and content are determined by the instructor in this elective in Art + Design history. May be repeated up to five times.

**Art - Studio Courses**

**ARTS 1990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ARTS 2330. Sculpture Basics. 4 Hours.**

Offers a studio course with an in-depth exploration into the process of creating sculpture. Builds on the introductory experience of ARTF 1124, with more advanced 3D concepts, materials, tools, and techniques. Emphasizes personal exploration, concept development, and creative innovation. Exposes students to sculpture through lectures, demonstrations, critiques, and hands-on assignments. Requires permission of instructor. May be repeated up to two times.

**ARTS 2340. Painting Basics. 4 Hours.**

Presents an introductory studio course in the fundamental techniques of painting. Formal problems in the study of color, light, space systems, form, and composition establish the foundation for more individual creative expression. Uses critiques and slide lectures as needed.

**ARTS 2341. Figure Drawing. 4 Hours.**

Focuses on developing the student's awareness of the structure of the figure as well as the emotive qualities of "figuration." Students draw from a model in each class. They also develop drawings based on the political and social concerns of contemporary culture and the role of gender as seen through "image."

**ARTS 2990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

**ARTS 3449. Drawing in Mixed Media. 4 Hours.**

Provides an upper-level course designed for students who want to explore the ever-changing discipline of drawing, which has now become a medium that stands on its own. Explores a range of media for generating drawings, including traditional techniques and computer-based media. Emphasizes open-ended application and interpretation of drawing as a medium. Requires students to attend lectures and exhibitions and keep a journal.

**ARTS 3990. Elective. 1-4 Hours.**

Offers elective credit for courses taken at other academic institutions. May be repeated without limit.
ARTS 5100. Visual Ideation. 4 Hours.
Explores drawing in a variety of media that communicate critical and analytical thinking about arts in the public sphere. Offers students an opportunity to learn how to use drawing and visualization to communicate effectively in a variety of media, either on paper or in digital media. Students can use collage, photo, digital media, and freehand drawing to express ideas for larger environmental and public projects. (Drawing is the way that artists such as Christo propose large-scale projects and is a viable way to secure acceptance of an idea.).

Game Design
GAME 1110. Games and Society. 4 Hours.
Provides an historical and cultural perspective on games and other forms of interactive entertainment. Examines the present state and future directions of paper, card, and board games; physical games and sports; and video games. Introduces students to current issues, experiments, and directions in the field of game design. Through weekly lectures and small-group labs, students have an opportunity to develop a critical basis for analyzing game play.

GAME 1850. Experimental Game Design. 4 Hours.
Explores traditions of games, play, participation, and procedurality in twentieth-century art movements, including Dada, Surrealism, Fluxus, conceptual art, the Situationists, Happenings, participatory performance and Tactical Media, avant-garde music, and contemporary art games. Through readings, lectures, and studio assignments, offers students an opportunity to understand and apply key principles by creating a series of artworks using various strategies drawn from these traditions, including appropriation, scores, intervention, and expression.

GAME 1990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

GAME 1999. Principles of Board Game Development. 4 Hours.
Introduces game design from engineering and innovation perspectives using initial design, rapid prototyping, and iterative design. Covers theory and implementation techniques to enable technical evaluation and game review, including statistical probability of random events; relative balance of player skill to game chance; game mechanics; and incorporating game art, theme, and flavor. Offers students an opportunity to learn game mechanics, development methods, and play-testing techniques. Introduces methods to match a game to its intended audience and designing games to be fun. Surveys roles in the tabletop game industry that impact game design: designers, publishers, manufacturers, distributors, game stores, conventions, and online sales. Students use acquired knowledge in a project-based learning environment to create a game that could be considered for commercialization. GE 1999 and GAME 1999 are cross-listed.

GAME 2010. The Business of Games. 4 Hours.
Surveys a wide array of game-specific industry topics, including pitching and development of talking points, business models and revenue structures, studio organization and style, intellectual property, contracts, project management expectations, project green-lighting, production pipelines, return on investment, outsourcing, and marketing. Exploring historical shifts and evolution of the video game market offers students an opportunity to obtain perspective on the status of the industry and potential growth in the economy.

GAME 2355. Narrative for Games. 4 Hours.
Examines and explores the structure and aesthetics of narrative, specifically in games. Begins by breaking down narrative into its various component parts that include, but are not restricted to, linear/branching narrative, emergent/inherent narrative, narrative obstacles, game pacing and narrative clock, character objectives, protagonist/antagonist, player/character, momentum and emotional journey, and tragic/comic elements. Offers students an opportunity to understand each narrative component through detailed case studies and the creation of narrative artifacts.

GAME 2500. Foundations of Game Design. 4 Hours.
Seeks to define the practice of game design within the larger context of playful interaction design, while constantly maintaining a player-centric approach. Unfolds the process of designing games between phases of analysis, synthesis, and evaluation. Establishes the role of game designer as an expert with a vision for determined player experiences and a vocal advocate for players. Seeks to offer students a broad methodology consisting of brainstorming methods, prototyping techniques, process management practices, and evaluation procedures to solve a wide array of design problems in an iterative manner.

GAME 2650. Introduction to Game Research Methods. 4 Hours.
Surveys research methods and epistemologies relevant to game researchers, designers, and artists, including experimental studies; analytics, formal and historical analysis; ethnography; qualitative social research; and design research. Engages students in lectures, readings, and game faculty guest lectures presenting practical examples of methods discussed in the class. Seeks to familiarize students with core literatures on games, library research, and research design through a series of hypothetical research project drafts and the completion of a research project using a specific method covered in the class.

GAME 2750. Games Criticism and Theory. 4 Hours.
Covers fundamental theories of art, meaning-making, expression, cultural reflection, and criticism concerning media, games, and playful artifacts. Assigns several papers that offer students an opportunity to choose and apply different critical lenses to games, game criticism, and their own gameplay experience. A long-form paper allows students to train writing theoretically informed and argumentatively cogent critical presentations of games and gameplay experience.

GAME 2755. Games and Social Justice. 4 Hours.
Analyzes games from a social justice perspective, encouraging students to consider issues of social stereotyping, normalization, exclusion, and inequity as they apply to games from all sectors of the industry. Discusses and analyzes games using a variety of social theories from a diverse set of fields, including gender studies, critical race theory, and LGBTQ studies. Provides a studio setting in which students have an opportunity to engage in critical making of playable experiences that are based upon and deeply integrate social justice theories in their design.

GAME 2950. Game Studio. 4 Hours.
Offers an experiential learning course in which students collaborate with faculty on a project for credit, which may include research, game creation, or a combination of the two. Offers students an opportunity to co-produce a publishable, distributable, or exhibitable game and/or research paper, which can become part of the student’s portfolio. Course may be taught by an individual faculty member or team-taught to allow for a diverse set of fields, including gender studies, critical race theory, and LGBTQ studies. Provides a studio setting in which students have an opportunity to engage in critical making of playable experiences that are based upon and deeply integrate social justice theories in their design.

GAME 2990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.
GAME 3055. Playful Design. 4 Hours.
Covers how to design for playful engagement across contexts. Surveys basic theories and findings on play in ethology, evolutionary psychology, developmental psychology, anthropology, sociology, and philosophy through readings and discussion. Through lectures and exercises, familiarizes students with traditional design areas of play (toys, playgrounds, amusement parks) and the history, theory, patterns, and methods of evoking playfulness in contexts beyond games, toys, and playgrounds. Encourages students to apply these insights into portfolio work by creating playful experience prototypes across media.

GAME 3300. Game Interface Design. 4 Hours.
Analyzes both successful and unsuccessful game interfaces from a historical and cultural perspective. Uses interactive design assignments to offer students an opportunity to develop an understanding of game user interface design standards. Encourages students to develop innovative interface designs that support new game content models.

GAME 3400. Level Design and Game Architecture. 4 Hours.
Analyzes game-level designs in a variety of genres and forms. Building upon basic drawing and design skills, students have an opportunity to develop paper prototypes and simple game “mods” in the context of story and game play. Students use computer-based tools to examine game-level architecture. Encourages students to take this elective in preparation for or in parallel to the Game Projects courses. ARTF 1122 and ARTF 1124 recommended (required for combined majors).

GAME 3700. Rapid Idea Prototyping for Games. 4 Hours.
Studies digital and nondigital prototyping techniques through weekly activities in which students build and critique prototypes around a variety of game design themes. Offers students an opportunity to build a portfolio of small proof-of-concept game prototypes over the course of the semester. Additionally, covers how to iterate on a single prototype through a semesterlong project in which students have an opportunity to work individually on a larger game design.

GAME 3800. Game Concept Development and Production. 4 Hours.
Offers student teams an opportunity to conceptualize, design, document, and develop a complete game, including content, level design, user interface, and game mechanics as specified in design documents. Offers a set of brainstorming techniques. Students segment the concepts into individual systems and prototype them in an iterative manner, formally iterating over the whole game to improve the player experience. Requires students to maintain a schedule and project management documents. Results in the presentation of the complete game for critique.

GAME 3990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

GAME 4155. Designing Imaginary Worlds. 4 Hours.
Offers students an opportunity to learn to conceive, design, and convey imaginary worlds across a wide range of media. The crafting of fictional worlds has become an important skill in the media landscape, whether for video and tabletop games, comic books, novels, film, or television. Analyzes existing works in diverse genres such as fantasy, science fiction, superhero, and supernatural worlds. Explores, through creative projects, the ways in which the use of different media are suited to portray different aspects of an imaginary world.

GAME 4700. Game Design Capstone 1. 4 Hours.
Offers the first course in a two-semester capstone sequence. Offers students an opportunity to take on individual roles in a large-group project, creating a complete game from preproduction through implementation and testing. Students spend the first half of the first semester developing a proposal and testing ideas through simple prototypes, building on their skills from GAME 3700 and GAME 3800. Students then have an opportunity to spend the second half of the first semester, and all of the second semester, developing, play-testing, and iteratively refining a multi-level game.

GAME 4701. Game Design Capstone 2. 4 Hours.
Continues GAME 4700. Offers students an opportunity to continue developing, play-testing, and iteratively refining the multilevel game begun in GAME 4700.

GAME 4970. Junior/Senior Honors Project 1. 4 Hours.
Focuses on in-depth project in which a student conducts research or produces a product related to the student’s major field. Combined with Junior/Senior Project 2 or college-defined equivalent for 8-credit honors project. May be repeated without limit.

GAME 4971. Junior/Senior Honors Project 2. 4 Hours.
Focuses on second semester of in-depth project in which a student conducts research or produces a product related to the student’s major field. May be repeated without limit.

GAME 4990. Elective. 1-4 Hours.
Offers elective credit for courses taken at other academic institutions. May be repeated without limit.

GAME 4992. Directed Study. 1-4 Hours.
Provides study for the student whose unique academic needs or interests cannot adequately be satisfied in any of the scheduled courses of the department. May be repeated up to three times.

GAME 4994. Internship. 4 Hours.
Provides students an opportunity for internship work. May be repeated without limit.

School of Museum of Fine Arts Courses
SMFA 3000. Museum of Fine Arts Studio. 2-12 Hours.
Offers course work at the School of the Museum of Fine Arts. May be repeated without limit.

SMFA 4000. Museum of Fine Arts Capstone. 2-12 Hours.
Offers capstone course work at the School of the Museum of Fine Arts. May be repeated without limit.