DIGITAL ARTS (DART)

DART 100: Introduction to Digital Art & Media Design
3 Credits
DART 100 Introduction to Digital Arts and Media Design (3) This course introduces students to concepts, skills, language and principles of practice in digital arts and design. This course introduces concepts and principles of practice necessary for digital arts and media design creative research and production. Students develop technical and critical proficiencies in design by applying problem-solving skills and exploring issues and ideas in digital arts and design; this is achieved by completing a series of individual and collaborative projects in a hands-on, digital studio setting.

DART 102N: Introduction to 2d Digital Art and Technology
3 Credits
DART 102N Introduction to 2d Digital Art and Technology (3) A General Education Integrative Studies, digital arts course introducing 2D graphics software through explorations of the 2d digital art medium. This is a General Education Integrative Studies, digital arts course introducing 2D graphics software through the creation of original digital artwork and the exploration of the 2d digital art medium. Course content explores technology, digital art, and visual culture, and concepts of identity, digital culture, and propaganda. Students create original artwork using graphic software such as Adobe Photoshop. They acquire skills and methods of research and development, creative production, critical review, reflection, and strategies for revision. Learning focuses on problem solving, exploration of creative options, visual communication, critique of images and ideas, and reflective writing. Students apply this process of visual research as a personal means of exploring topical issues and ideas, responding in informed ways to the images created by others, and reacting critically and creatively to the visual world around them. The course looks at topics such as the impact of technology on personal identity and community practices as they are represented in the mix of visual culture. Methods of visual expression and graphic communication such as advertising, messaging and propaganda are examined and critically analyzed as cultural practices that serve many purposes, from education, entertainment, marketing, and politics. The purpose of the course is to introduce students to the creative use of digital technologies in responding critically and imaginatively to this changing visual world of image, text and story in which they live. By developing original digital artwork, students learn to formulate and communicate their ideas related to the course topics from a personal perspective and build an understanding of how they make an impact on a world beyond the classroom.

Bachelor of Arts: Arts
General Education: Arts (GA)
General Education: Humanities (GH)
General Education - Integrative: Interdomain
GenEd Learning Objective: Effective Communication
GenEd Learning Objective: Crit and Analytical Think
GenEd Learning Objective: Key Literacies

DART 200: Creative Research in Digital Arts & Media Design
3 Credits
DART 200: Creative Research in Digital Arts and Media Design (3) provides digital artists and designers with a studio-based exploration of critical, theoretical, and historical understandings of digital media and research. This course provides digital arts and media design majors with a studio-based exploration of critical, theoretical, and historical understandings of digital media processes and creative research methodologies. Students practice formal art and design skills, acquire and expand digital proficiencies, and reflect upon their creative research in studio-based inquiry and production.

Prerequisites: DART 100, DART 202 Concurrent Courses: DART 203
DART 201: Focused Realization Studio
3 Credits
DART 201: Focused Realization Studio (3) Provides students with the opportunity for the realization of more focused studio explorations in digital arts and design disciplines. This course provides digital arts and media design students the opportunity for the realization of more focused digital media explorations, creative research and studio production while building upon material introduced in previous courses. Students will create individual and team-based studio work that investigates more advanced issues and problems in the digital arts and design from a variety of disciplinary understandings, resulting in a portfolio of completed and fully realized studio-based projects. A primary purpose of the course is to bring together students engaged in a range of studio explorations and create a synergistic group dynamic that will inform and advance the work of all participants; hence, personal initiative and strong self-learning skills are a given expectation.

Prerequisites: DART 200 Concurrent Courses: DART 205 ART 211Y
DART 202: 2D Digital Art & Computer Graphics
3 Credits
DART 202 2D Digital Arts and Computer Graphics (3) Introduces 2D digital imaging techniques and concepts for the production of original art and design using graphics software. This course will introduce 2D digital art and design concepts and computer graphics imaging techniques for artists and designers through creative exploration of the medium using industry standard software like Adobe Photoshop and Illustrator. Students look at key concepts relating to art and digital culture, identity and visual culture through the development of conceptual criticality, creativity and problem solving to better understand how to express ideas visually in interesting ways. The course also looks at the impact of technology on visual culture and the relevance to artistic creation. In developing their artwork, students will learn to formulate their own ideas in relation to the topics and build an understanding of how they relate to them beyond the classroom. The course provides students the requisite 2D computer graphics and conceptual skills to take more advanced new media, digital arts and media design courses in the School of Visual Arts.

DART 203: 3D Digital Art & Design Fundamentals
3 Credits
DART 203 3D Digital Art and Design Fundamentals (3) Introduces 3D foundational skills for producing images, videos, objects, and interactive real-time virtual spaces with 3D software. This course will introduce 3D
digital art and design foundational skills, concepts, and methodologies for producing images, videos, objects, and interactive real-time virtual spaces using 3D software. Students will master and apply 3D tools in exploring creative expression, design possibilities, and effective and compelling means of communication. 3D design concepts and tools extend the means by which we respond to change in a purposeful way connected to a wide range of media formats that create, communicate, and respond to new ideas, forms, and questions. In this course, students will respond to project and exercise prompts through the production of textured polygonal surfaces, animated 3D scenes, image and video renders, and thoughtful critique. Students will engage with readings and film screenings through discussions and writing to encourage critical understanding and reflection. Students will come away from this course with a broad repertoire of creative design approaches and the ability to apply digital 3D production concepts, methodologies, and skills in publishing creative works in a variety of media settings including the web, film, print, and product design. The course provides students the requisite 3D computer graphics and conceptual skills to take more advanced new media, digital arts and media design courses in the School of Visual Arts.

Bachelor of Arts: Arts

DART 204: Animation Fundamentals

3 Credits

DART 204 Animation Fundamentals (3) Introduces time-based animation fundamentals along with core skills and knowledge necessary for producing animated work. This course focuses on creative work that is grounded in fundamentals and engages students in studio-based research methods to advance their skills and critical competence in time-based media. Students are introduced to core skills and knowledge necessary for producing animated works that communicate ideas, enhance user interface and interaction, and inspire critical reflection. Through a series of animation exercises students apply visual digital concepts in the creation of original animated projects that are further enhanced by critical responses to screenings and discussions of key texts about animation. Initial exercises cover animation principles and tools, creating assets, production planning, layout and composition, keyframes, transformation and deformation, and interpolation. Character animation design and development, rigging, asset preparation, cameras are covered, along with various forms of interface prototypes such as interaction design, wireframes, interface elements. Students are also introduced to typography, sound design and Foley, motion design, color, masking, post effects, and color grading. Later in the course, students also develop a series of more ambitious animation projects using an iterative design process that further develops their digital competencies and creative and critical capabilities in time-based media.

DART 206: Web Design and Visual Web Development

3 Credits

DART 206 Web Design and Visual Web Development (3) Introduces essential techniques and concepts of modern web design, focusing on how visual graphics and layout contribute to user experience. This course introduces students to essential techniques and concepts of web design, focusing on how visual graphics and layout contribute to user experience. Students will examine historical and emerging trends in web design, while producing original websites and digital media work. The course will include frontend skills such as designing icons, responsive layouts, and typography as well as essential development skills like HTML, CSS, and a general understanding of web protocols. Accessibility standards, multi-language audiences, and other vital aspects of online culture will be discussed to help students create flexible and modern web projects.

DART 213: 3D Printing for Artists and Designers

3 Credits

DART 213 3D Printing for Artists and Designers (3) This course explores the potential of 3D printing as a vehicle for creative expression. Studio sessions include hands-on printing with materials both hard and soft, from bio-plastics to ceramics. The class is designed to be collaborative and interdisciplinary. We will investigate the role 3D printing can play in the working processes of Artists & Designers presently and in the future. We’ll ask questions about the potential of this technology and we’ll discuss our answers and opinions. Our class will spend a significant amount of time making and iterating designed objects and sculptural forms via 3D modeling, 3D scanning, and 3D printing. We will become familiar with 3D modeling software programs and printer control programs via course projects, tutorials, and one-on-one instruction. Our software and hardware choices will be focused particularly on tools that are open source and free, emphasizing a D.I.Y. approach to this emerging technology. We will also spend a great deal of time investigating a range of approaches to 3D printing from craft processes to industrial applications, large and small. Each week we will introduce a discussion topic and a hands-on project.

DART 296: Independent Studies

1-18 Credits/Maximum of 18

Creative projects, including research and design, which are supervised on an individual basis and which fall outside the scope of formal courses.

DART 297: Special Topics

1-9 Credits

Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

DART 300: Digital Portfolio Elements

3 Credits

DART 300: Digital Portfolio Elements (3) An intermediate level studio course in which students develop digital art and design work that promotes creative thinking and problem-based learning in producing digital media projects to be included in their digital portfolio. Students also gain increased ability and independence in the application of relevant digital tools and technologies. The structure of the assignments and overall course will prepare and guide the students towards increased critical awareness and professionalism through the creation of a body of work, greater understanding of the languages of art and design, and an increased ability to analyze and critique the work of others. This course relies on the active and collective participation of each student.

Prerequisite: DART 202; DART 206

DART 302: Digital Painting Studio

4 Credits

DART 302 Digital Painting (4) A digital arts studio course that focuses on creating and critically evaluating digital painting. This digital arts studio course focuses on creating and critically evaluating digital painting and builds upon previous digital arts studio courses by extending
students experience with the creative exploration of the digital medium. This course will engage art and design students on the principles, techniques and relevant technologies to advance their skills and critical competencies in digital painting and concept art through hands-on studio production in collaboration with SoVA studio faculty. The course is for students enrolled in the Art BA, Art BFA, Art Education BS, Digital Arts and Media Design BDes or Photo BDes degree programs.

**Prerequisites:** DART 202, ART 250

**DART 304: Motion Graphics Studio**

4 Credits

DART 304 Motion Graphics Studio (4) A digital arts studio course focuses on developing and critically evaluating motion graphics and time-based media art and design. This course will build upon previous digital arts studio courses and provide students with an in-depth studio experience to further develop motion graphics and time-based media techniques and production strategies through the creative exploration of the medium. This course will focus on the production of creative work that is exploratory and experimental and engage digital art and design students on the principles, processes, methods and relevant technologies to advance their skills and critical competence in motion graphics, animation and time-based media. The course is for students enrolled in the Art BA, Art BFA, Art Education BS, Digital Arts and Media Design BDes or Photo BDes degree programs.

**Prerequisites:** DART 202

**DART 305: Mobile and Touch Studio**

4 Credits

DART 305 Mobile and Touch Studio (4) A studio course focusing on designing and developing interactive stories, games and expressive applications targeting mobile and touch screen devices. This course teaches students how to design and develop interactive applications for mobile and touch screen devices. Through lectures, discussions and exercises, students are exposed to the latest methods of gestural interface design. They produce through an iterative design process a series of short projects and learn to integrate interface elements, interactive storytelling techniques, and implement design patterns using a scripting language.

**Prerequisites:** DART 202, DART 205, and enrollment in the Art BA, Art BFA, Art Education BS, Digital Arts and Media Design BDes or Photo BDes degree program

**DART 314: Video Art and Time-Based Media**

4 Credits/Maximum of 8

DART 314 Video Art and Time-Based Media (4 per semester/maximum of 8) A digital arts studio course that focuses on video art, new media and time-based work. This digital arts course provides an in-depth studio experience in video art and time-based media production through the creative exploration of the medium. The course will engage art and design students on the principles, methods and relevant technologies to help advance critical competencies and technical proficiencies with an emphasis on integrating digital video and time-based media into current studio practice.

**Prerequisites:** DART 304

Bachelor of Arts: Arts
of record for the course towards the completion and presentation of the undergraduate thesis.

**Prerequisites:** DART 400

DART 404: Animation Studio  
4 Credits/Maximum of 8  
DART 404 Animation Studio (4 per semester, maximum of 8) An in-depth digital arts production course focusing on exploring animation and time-based media through the development of self-initiated projects. This course will build upon previous digital arts studio courses and provide students with an in-depth studio experience to produce animated and time-based media works. In animation studio, students will explore animation and time-based media in relationship to their creative interests and studio practice while seeking to integrate course lectures, discussions and screenings into the realization of new work. This course is receptive to all forms of traditional and experimental animation techniques (analog, digital, hybrid) as well as creative and time-based media approaches.

**Prerequisites:** DART 303; DART 304; DART 314 Recommended  
Preparation: DART 204

DART 405: Physical Computing Studio  
4 Credits/Maximum of 8  
DART 405 Physical Computing Studio (4 per semester, maximum of 8) A studio course concentrating on interactive physical systems using software/sensors that can sense and respond to the analog world. This course will build upon previous digital arts studio courses and will concentrate on interactive physical systems using software/hardware that can sense and respond to the analog world. Physical Computing Studio will focus on creative work that is exploratory and experimental and engage students in research methods to advance their skills and critical competence in new media. Assignments will cover both a technical introduction to basic electronics, analog circuit design, and micro controllers as well as design concepts and philosophies for building interactive art objects.

**Prerequisites:** DART 202, DART 205

DART 412: Portfolio Design and Professional Practices  
3 Credits  
DART 412 Portfolio Design and Professional Practices (3) This course emphasizes the development of presentation skills for digital artists in audience/client interactions. This course is the concluding experience for all students enrolled in the Digital Arts Certificate (DAC) program. The course provides opportunities for students to learn about the practical application of professional practices and portfolio development tools specific to careers that require knowledge of digital art and design principles and culminates in the development of a professional-quality creative portfolio. The course is taught fully online and comprises coursework supported by online presentations and guest talks, assigned readings, and other resources and reference materials relevant to the professional development of digital artists and designers. Students engage in both individual and team-based projects and interactions via activities such as asynchronous group discussions and guest talks delivered by streaming media. Students are required to have access to the Internet.

**Prerequisites:** DART 300

DART 495: Internship  
1-18 Credits/Maximum of 18  
Supervised on or off-campus, nongroup instruction including field experiences, practica, or internships. Written and oral critique of activity required.

DART 496: Independent Studies  
1-18 Credits/Maximum of 18  
Creative projects, including research and design, which are supervised on an individual basis and which fall outside the scope of formal courses.

DART 497: Special Topics  
1-9 Credits  
Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.