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: Creative Thinking
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.

Enforced Prerequisite at Enrollment: DART 100 or DART 202

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.

Enforced Prerequisite at Enrollment: DART 200 enforced Concurrent at Enrollment: 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. Student 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 205: Creative Coding: Scripting for Art and Design

3 Credits

DART 205 Creative Coding: Scripting for Art and Design (3) Introduces object-oriented programming fundamentals for the production of expressive interactive experiences such as animations, interfaces and games. This course introduces object-oriented programming fundamentals for the production of expressive interactive experiences such as animations, interfaces and games. This course focuses on creative work that is exploratory and experimental and engage students in studio research methods to advance their skills and critical competence in new media. Students apply computation concepts based on readings and discussions of key texts about interactive design, media

art, and game design to the creation of original interactive projects. The course offers a series of scripting exercises in which students learn to develop applications using both a top-down and bottom-up design process. Students also develop a series of more ambitious computational projects using an iterative design process. They produce detailed design treatments and working prototypes before turning in final applications developed using an object-oriented programming language. The course gives students the requisite computational 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 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.

Enforced Prerequisite at Enrollment: DART 202 or DART 203 or DART 204 or DART 205 or DART 206

DART 301: Creative Collaboration Studio

4 Credits

DART 301 Creative Collaboration Studio (4) Provides students with an advanced studio exploration of interdisciplinary collaborative projects in the digital arts and design disciplines. This course will consider and develop advanced studio work that investigates, from a variety of disciplinary understandings, increasingly complex issues and problems in the digital arts and design disciplines. The course will emphasize collaborative and team-based projects, exploring the creative potential within the group dynamic as well as in relation to a client. A primary purpose of the course is to bring together students engaged in a wide 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.

Enforced Prerequisite at Enrollment: DART 300 and ART 211Y

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

Enforced Prerequisite at Enrollment: DART 202 and ART 250

DART 303: 3D Studio

4 Credits/Maximum of 8

DART 303 3D Studio (4) A digital arts studio course focusing on developing 3D computer generated digital art and design work. This course will build upon previous digital arts studio courses and provide students with an in-depth studio experience to further develop 3D production techniques and strategies; incorporating workflows for modeling, animation, and rendering in support of creative exploration of the medium.

Enforced Prerequisite at Enrollment: DART 202, and enrollment in the ARTBA_BA, ARBFA_BFA, AED_BS, DIGMD_BDES, IDS_BDES, PHOTO_BDES or ARTAB_BA degree program
Bachelor of Arts: Arts

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.

Enforced Prerequisite at Enrollment: 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.

Enforced Prerequisite at Enrollment: DART 202 and DART 205

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.

Enforced Prerequisite at Enrollment: DART 304
Bachelor of Arts: Arts

DART 315: Game Studio

4 Credits/Maximum of 8

DART 315 Game Studio (4 per semester/maximum of 8) A digital arts studio course concentrating on authoring interactive games as a creative vehicle for self-expression. This digital arts course provides an in-depth studio experience that will concentrate on authoring and critically evaluating interactive games as a creative vehicle for self-expression. This course 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. Students will learn fundamentals of game design as it applies to board games and digital games. Through a series of small projects, students will design and develop both individually and in teams, analog, 2D and 3D game prototypes using a scripting language.

Enforced Prerequisite at Enrollment: DART 202 and DART 205

DART 400: Digital Arts & Media Design Capstone I

4 Credits

DART 400 Digital Art and Design Capstone I (4) Provides digital arts and media design students an opportunity to conceptualize an undergraduate thesis. Each student will have the opportunity to identify the primary issue of theoretical concern based on his/her personal interest, and pursue research in a rigorous, in-depth manner. The preparation and initiation of the undergraduate thesis will occur within a collaborative team-based studio environment. Students in DART 400 will begin to research and synthesize disciplinary and interdisciplinary understandings through the exploration of critical, theoretical, and historical perspectives of digital media. This understanding will foster the spirit of in-depth arts and design inquiry and research, and will build upon arts and design awareness, skills, and methods introduced in previous courses. The student will integrate studio and theory while creating a significant work of digital art or design. The student will work with a faculty adviser(s) in addition to the instructor of record for the course towards the completion of design documents, proof of concepts and prototypes for the undergraduate thesis.

Enforced Prerequisite at Enrollment: DART 301 Enforced Concurrent at Enrollment: ART 476

DART 401: Digital Art & Media Design Capstone II

4 Credits

DART 401 Digital Art and Media Design Capstone II (4) Provides digital arts and media design students an opportunity to implement an undergraduate thesis. This course is the second part of a two-course undergraduate digital arts and media design thesis to be taken in the final year of study. Each student will have the opportunity to further explore the primary issue of theoretical concern based on his/her personal interest, and complete research in a rigorous, in-depth manner. The creation and implementation of the undergraduate thesis will occur within a collaborative team-based studio environment. Students in DART 401 will build upon the preliminary research and studio investigations undertaken in DART 400. The thesis will synthesize the

student's arts and design awareness, skills, and methods introduced in previous courses. The student will integrate studio and theory while creating a significant work of digital art or design, which demands a high degree of responsibility, self- motivation, and personal commitment. The student will work with a faculty adviser(s) in addition to the instructor of record for the course towards the completion and presentation of the undergraduate thesis.

Enforced Prerequisite at Enrollment: 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.

Enforced Prerequisite at Enrollment: DART 303 or DART 304 or 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.

Enforced Prerequisite at Enrollment: DART 202 and DART 205

DART 406: Advanced Web and Multimedia Publishing Studio

4 Credits/Maximum of 8

DART 406 Advanced Web and Multimedia Publishing Studio (4 per semester/maximum of 8) A digital arts studio course concentrating on advanced web and multimedia publishing practice for art and design. This course will build upon previous digital studio courses and provide students with an in-depth experience on web authoring and multimedia publishing practice through readings, discussions and hands-on studio production towards the realization of new work and representative online portfolio.

Enforced Prerequisite at Enrollment: (ART 101 or DART 203 or DART 305) and 8 credits in DART
Bachelor of Arts: Arts

DART 410: Integrating Media: Convergence in Practice

4 Credits/Maximum of 12

DART 410 Integrating Media: Convergence in Practice ((4 per semester/ maximum of 12) A studio course focusing on integrating new media concepts and related technologies into digital arts, media design and contemporary studio practice. This course is designed to provide an intensive studio experience for more focused creative research, media exploration and studio practice in new media. Students will seek to engage and synthesize a wide range of technologies, techniques and digital workflows in 2d, 3d, 4d or interactive media towards the development of a compelling and cohesive body of work.

Enforced Prerequisite at Enrollment: DART 302 or DART 303 or DART 304 Bachelor of Arts: Arts

DART 411: Advanced New Media: Capstone

4 Credits/Maximum of 8

DART 411 Advanced New Media: Capstone (4 per semester/maximum of 8) A new media and digital arts capstone course concentrating on the integration of art and technology in advanced thesis projects. This is an advanced senior level capstone experience for new media. The course concentrates on advanced media theory and discourse, the integration of new media technologies into contemporary studio art and design practice, and on the creation and documenting of senior thesis projects. DART 411 will also focus on the final preparation of professional portfolios. Student thesis projects may cover a range of digital multimedia applications in sound, image, motion, interactivity, interface design, 2D, 3D, 4D media authoring, etc. in relation to their focus in new media art and design practice.

Enforced Prerequisite at Enrollment: (DART 302 or DART 303 or DART 304 or DART 305) and 12 credits in DART and 7th semester standing or higher Recommended Preparation: ART 101 or DART 206 or DART 406

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.

Enforced Prerequisite at Enrollment: 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.