DESIGN/MEDIA ARTS (DMA)

DMA 002 HISTORY OF DESIGN AND MEDIA ARTS
3 unit
Transfer Credit: CSU; UC
Survey of the history of graphic design and media art. Spans from the printing press to generative art. Includes the influence of technology and digital media on contemporary art and design practices. Total of 54 hours lecture.
Grade Mode: *Audit, Letter Grade*

DMA 004 HISTORY OF DIGITAL GAMES
3 unit
Transfer Credit: CSU; UC
Survey of the history of digital games. Spans from mainframe, text-based games and simulations to consoles, and the indie game development scene. Includes the influence of computer programming and technology on game design today. Total of 54 hours lecture.
Grade Mode: *Audit, Letter Grade*

DMA 010 DIGITAL ART: DESIGN FOUNDATION
3 unit
Transfer Credit: CSU
C-ID: ARTS 250
Introduction to the computer as an effective visual communication design, production and presentation tool. Teaches current design software, hardware, input, and output devices. Design assignments integrate digital tools, techniques, concept development, and composition using text and image. No credit if taken after ART 040. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 012 DIGITAL ART: PAINTING & DRAWING
3 unit
Transfer Credit: CSU; UC
C-ID: ARTS 250
Introduction to fundamental concepts, practices, and theories of digital art production. Topics include integration of traditional design, and compositional principles with contemporary digital tools. Total of 36 hours lecture and 72 hours laboratory. No credit if taken after ART 056.
Grade Mode: *Audit, Letter Grade*

DMA 020A GRAPHIC DESIGN I
3 unit
Transfer Credit: CSU; UC
Prerequisite(s): *Enrollment in or completion of ART 031A*

Introduction to the fields of graphic design & advertising. Concept development, the creative design process, production, and presentation techniques through the development of design projects on various media. Design and production skills including beginning computer software skills. Total of 36 hours lecture and 72 hours laboratory. No credit if taken after ART 050A.
Grade Mode: *Audit, Letter Grade*

DMA 020B GRAPHIC DESIGN II
3 unit
Transfer Credit: CSU; UC
Prerequisite(s): *DMA 020A*

Intermediate studies of the theories and techniques in the fields of graphic design and advertising. Principles of concept and design development are combined with the use of computer design and production tools. Projects are produced for various media like: brochures, magazines, ePubs, posters, corporate ID, branding, advertising, and packaging design. Total of 36 hours lecture and 72 hours laboratory. No credit if taken after ART 050B.
Grade Mode: *Audit, Letter Grade*

DMA 020C GRAPHIC DESIGN III
3 unit
Transfer Credit: CSU; UC
Prerequisite(s): *DMA 020B*

Advanced studies in the fields of graphic design and advertising and portfolio development. Projects, including a portfolio, are developed for use in seeking employment or application to a university or professional school. Emphasis is on advanced concepts and presentation techniques and the application of visual communication concepts to print and digital media. No credit if taken after ART 050C. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 022A TYPOGRAPHY I
3 unit
Transfer Credit: CSU; UC
Introduction to the fundamentals of typographic lettering through the study of historic and contemporary fonts, calligraphic, and hand-drawn typographic forms and systems. Emphasis is on developing conceptual, design, compositional, and hand drawing skills, in order to gain skill in producing logotypes, fonts and custom typographic lettering to for the needs of graphic design and advertising industries. Students will learn a variety of traditional analogue and contemporary digital techniques and materials. No credit if taken after ART 051A. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 022B TYPOGRAPHY II
3 unit
Transfer Credit: CSU; UC
Recommended Preparation: *DMA 022A or DMA 020A*

Intermediate studies in the application of typography, and the creation and application of custom logotypes, fonts, and typographic lettering to creative visual communications design projects in the graphic design and advertising industries. Emphasis is on concept development, design, production, and presentation of artwork using both traditional and contemporary digital methods. No credit if taken after ART 051B. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 032 INTERACTION DESIGN
3 unit

Transfer Credit: CSU; UC

Introduction to human-computer interaction, interface design, and interactive and time-based media for designers. Overview of foundational interaction design concepts such as human factors, perception, cognition, research techniques, and design methods for the design of user experiences and interaction. A survey of interactive products, systems, interfaces and technology (software and hardware), constraints and trajectories for future developments and how these frame Interaction Design and production. Workflow, planning and organization of prototyping in Interaction Design. No credit if taken after ART 154 or ART 064. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 034 USER EXPERIENCE DESIGN (UX)
3 unit

Transfer Credit: CSU; UC

Focuses on the quality of experience a person has when interacting with a specific design. A UX Designer focuses on the needs and wants of the user, as well as ease-of-use, and designs for the best possible user experience. Covers the design process, documentation, and tools used within the UX field. Topics include user research, information architecture, interaction design, prototyping, and usability testing. Following a design process, students will collaborate to research, critique, and design a project that includes prototyping and user-testing. No credit if taken after ART 063. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 050 WEB DESIGN & DEVELOPMENT
3 unit

Transfer Credit: CSU; UC

Covers design and creation of websites. Exploration of usability, interface, navigation, and information design as well as creation of dynamic content in websites. Use of HTML, CSS, CMS's, and PHP/MySQL to explore simple to complex interactive projects for the Web. Creation of a professional website designed in an interdisciplinary team environment. Emphasis on project management and conceptual skills that comprise well-designed websites; an interdisciplinary course. No credit if taken after ART 198 or ART 098. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 060 CREATIVE CODING
3 unit

Transfer Credit: CSU; UC

Exploration of the creative potential of computer programming using Processing and Java. Teaches the use, and cultural implications of code in the context of art and design. Fundamentals of programming (variables, conditionals, iteration, functions, and objects). Covers generative drawing, image processing, 3D graphics, data parsing, computer vision in a variety of art and design-oriented projects, media outputs and fabrications. For students who would like to explore computer programming in an art and design context. No credit if taken after ART 060. Total of 36 hours lecture and 72 hours laboratory

Grade Mode: *Audit, Letter Grade*

DMA 062 CREATIVE CODING FOR THE INTERNET
3 unit

Transfer Credit: CSU; UC

Exploration of the creative potential of computer programming for the Internet using JavaScript, its use, and cultural implications in the context of art and design. Fundamentals of programming (variables, conditionals, iteration, functions, and objects). Covers generative drawing, 3D graphics, sound, and virtual reality in a variety of design projects specifically for web-based and mobile output. Geared toward students who would like to explore computer programming in an art and design context. No credit if taken after ART 158 or ART 059. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 064 CREATIVE CODING FOR MOBILE DEVICES
3 unit

Transfer Credit: CSU; UC

Exploration of the creative potential of computer programming for mobile devices using Apple's Swift programming language. Teaches the use and cultural implications of code in the context of art and design. Fundamentals of programming (variables, conditionals, iteration, functions, and objects). Covers touch-based interfaces, generative drawing, image processing, 3D graphics, data parsing, computer vision in a variety of art and design-oriented projects, media outputs and fabrications. Geared toward students who would like to explore computer programming in an art and design context. No credit if taken after ART 061. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 068 PHYSICAL COMPUTING FOR ART & DESIGN
3 unit

Transfer Credit: CSU; UC

Explores the creative potentials in the field of physical computing for artists and designers. Explores innovative ways to create installations, interactive products, designs and sculptures that combine electronics, sensors and motors to generate unique experiences. Students will work individually and in teams to wireframe, prototype and produce interactive objects while learning the basic principles of electronics as they apply to art-making. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 070 MOTION GRAPHICS
3 unit

Transfer Credit: CSU; UC

Exploration of experimental and new technological approaches to creating original 2D and 3D time-based visual imagery for use in design, fine arts, animation, and interactive media. Introduction to the integration of sound, graphics, video, and text. Exploration of motion design and dynamic storytelling to create movies, animation, and professional special effects for digital output. No credit if taken after ART 156 or ART 057. Total of 36 hours lecture and 72 hours laboratory.

Grade Mode: *Audit, Letter Grade*

DMA 072 2D ANIMATION
3 unit
Transfer Credit: CSU; UC
Covers the basic theory and mechanics of animation. Development of simple animation using principles such as squash and stretch, overlap and anticipation. Fundamentals of character design, storyboarding, visual storytelling, and layout. Techniques such as stop-motion, onionskin, follow-through and rotoscoping using industry-standard computer animation applications. No credit if taken after ART 070. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 080A 3D MODELING & SCULPTING
3 unit
Transfer Credit: CSU; UC
Cover three-dimensional modeling, sculpting, rendering, 3D Printing using industry-standard tools and methods. Topics include modeling with polygons, modeling with NURBs surfaces, materials, textures, lighting, and rendering. Principles of digital sculpting and methods to optimize projects for 2D and 3D printing. No credit if taken after ART 155A or ART 085A. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 080B 3D ANIMATION & SIMULATIONS
3 unit
Transfer Credit: CSU; UC
Introduction to time-based three-dimensional design and dynamic simulations. Animation, motion graphics, and dynamic effects using industry-standard tools and methods. Topics include basic rigging, animation, camera motions, paint effects, procedural animation, and dynamic simulations. Methods for post-production and output to video. No credit if taken after ART 155B or ART 085B. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 090 GAME DESIGN I
3 unit
Transfer Credit: CSU; UC
Surveys history, technology, narrative, ethics, and design of digital games. Work in teams to develop novel game-design story boards, and game design documents. Exploration of the interplay of narrative, graphics, rule systems, and artificial intelligence in the creation of digital games. No credit if taken after ART 080. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 092 GAME DESIGN II: GAME ENGINES
3 unit
Transfer Credit: CSU; UC
Intermediate skills in video game design and development using a 2D and 3D game engine. Creation of projects in 2D, 3D and virtual reality. Utilization of a design methodology that involves brainstorming techniques, teamwork, game design documents, prototyping, and playtesting. Development of project management for an efficient and effective game design workflow. Topics include game rules, balance, complexity, randomness, narrative, player interaction, aesthetics, and world-building. Includes basic scripting skills for game development. No credit if taken after ART 081. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 098 DESIGN/MEDIA ARTS INCUBATOR
3 unit
Transfer Credit: CSU
Final course for Design Media Arts certificates. Identifying, pitching, developing and producing a student-lead, team-based, interdisciplinary digital media project. Exploring strategies for independent production and project promotion. Exposure to mentorship and professional feedback through invited guest critics. Collaborative and professional creative-studio setting. No credit if taken after ART 180. Total of 36 hours lecture and 72 hours laboratory.
Grade Mode: *Audit, Letter Grade*

DMA 099A WORK EXPERIENCE/INTERNSHIP IN DESIGN MEDIA ART (PAID)
0.5-8 unit
Transfer Credit: CSU
Prerequisite(s): *Completion of one semester at Pasadena City College and completion of one course in major*

Enrollment Limitation: *Instructor approval*

Provides students on-the-job learning in a paid design media art position. Development of effective work habits, attitudes, and career awareness so as to enable students to become productive employees. Credit may be accrued at the rate of 0.5 to 8 units per semester. One unit of credit for each 75 hours of paid work experience.
Grade Mode: *Letter Grade, Pass/No-Pass*

DMA 099B WORK EXPERIENCE/INTERNSHIP IN DESIGN MEDIA ART (UNPAID)
0.5-8 unit
Transfer Credit: CSU
Prerequisite(s): *Completion of one semester at Pasadena City College and completion of one course in major*

Enrollment Limitation: *Instructor approval*

Provides students on-the-job learning in an unpaid design media art position. Development of effective work habits, attitudes, and career awareness so as to enable students to become productive employees. Credit may be accrued at the rate of 0.5 to 8 units per semester. One unit of credit for each 60 hours of unpaid work experience.
Grade Mode: *Letter Grade*