DIGITAL ART AND ANIMATION

Digital Art and Animation
(3D Animation and Video Game Art, Graphic Design, Web Design, and Multimedia)

MART 314 INTRODUCTION TO COMPUTER GRAPHICS
State of the art computer graphics software are introduced with respect to print, web and motion graphics. Introduction to typography, graphic layout/design fundamentals, web interface design and animation/motion principles and other computer graphics software applications. Following a fine arts approach students generate their own creative content for print and/or electronic publication. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU, UC

MART 325 DIGITAL PAINTING
Using digital painting software and drawing tablets, students use digital tools for the artistic expression of the concepts and techniques of traditional painting. Some painting and computer knowledge desirable. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 48-54 TBA; 48-54 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU

MART 362 INTRODUCTION TO DIGITAL PHOTOGRAPHY
An introduction to the theory and technology of digital photography. Exploration of the digital camera in both professional and consumer use. Techniques of taking a photograph, types of storage, transferring of images, image editing, and optimizing final output will be evaluated. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework

MART 363 ADVANCED DIGITAL PHOTOGRAPHY
Intermediate to advanced photographic techniques covering the complete cycle of production from image setup to output. Emphasis is placed on developing skills in creating digital photographic imagery for creative and professional expression through a mixture of exercises, lecture, and demonstration. Topics include advanced camera skills, composition, color management, Lightroom and other asset management systems. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. MART 362 or previous experience with raster image editing software (Photoshop or equivalent)
Transfer Credit: CSU, UC

MART 366 COLOR MANAGEMENT AND THEORY
Create a successful color management workflow from digital image to digital print. Understand and use color, calibration, and create profiles to get the desired color output. Topics include pre-press file management, RGB to 4-color ink, paper, output, proofing, and industry standards. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. MART 376 is strongly recommended.
Transfer Credit: CSU

MART 368 INTRODUCTION TO WEB DESIGN
This course teaches the fundamentals of creating a website through a mixture of hands-on exercises, lecture, and demonstration. Topics include site layout principles, a discussion of HTML, color and image preparation, for the web, browser compatibility, graphic user interface design, usability and internet ethics and copyright issues. Students build a basic website following accepted design layout standards. The class focuses on Dreamweaver®, but also uses Adobe Photoshop®, ImageReady® and a basic demonstration of Flash®. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.
MART 369 ADVANCED WEB DESIGN
Students learn advanced concepts and techniques to create elaborate and visually appealing websites. User centered design, graphic user interface customization, Internet ethics, and copyright issues are taught as well as a review of basic color, layout and typography theory and practice. Some HTML, JavaScript, and CGI concepts are demonstrated to incorporate some basic interactivity. This course is taught using Macromedia Dreamweaver®, and Adobe Photoshop®. Other software may be utilized. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Prerequisites: MART 368
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU

MART 371 USER INTERFACE/USER EXPERIENCE DESIGN
Covers the fundamentals of user-centered interface design concepts and practices for web, mobile devices, and other applications. Students gain an understanding of how users interact with an interface and be introduced to the concepts of usability, interface associations and aesthetics, and the user experience. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU

MART 372 DIGITAL ILLUSTRATION
Using Adobe Illustrator and other digital design software students will develop strategies for content development, visual cohesiveness and graphic production techniques. Topics include design, layout, typography, and color principles, vector graphics versus raster graphics and project preparation for print. The student will create projects ranging from promotional posters and business cards, to bottle labels and restaurant menus. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU

MART 376 INTRODUCTION TO DIGITAL IMAGING
An introduction to the theory and technology of digital imaging, this project based course includes assignments covering specific concepts as well as allowing the student creativity to explore the topic and software. Students work with digital images using digital manipulation and image correction tools software such as Adobe Photoshop® to create digital photographs and imagery. Students’ images become part of a basic portfolio. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU, UC*

MART 377 ADVANCED DIGITAL IMAGING
Using digital design software such as Adobe Photoshop, students develop strategies for content development, visual cohesiveness and graphic production techniques. Topics include design, layout, typography, and color principles, vector graphics versus raster graphics and project preparation for print, web and animation. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3
Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework
Prerequisites: MART 376
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU, UC

MART 378 DIGITAL PAGE LAYOUT
An introductory course in page layout for graphic design for both print and electronic publication. Through projects and assignments, students integrate sound design principles
and digital software skills in the creation of multiple page
documents. Both Macintosh and Windows environments
are supported. **Grade Option (Letter Grade or Pass/No Pass).**
Degree Credit.

**Units:** 3

**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72
Homework

**Recommended:** Eligibility for READ 836 and ENGL 836; or
ENGL 847 or ESL 400.

**Transfer Credit:** CSU

**MART 379 INTRODUCTION TO DIGITAL ANIMATION**

A project-based course in which both traditional and digital
animation techniques such as storyboarding and frame-by-
frame animation are explored through the use of 2D digital
animation software as a medium for the development of
creative computer-based animation. Other topics included
in this course deal with the implementation of successful
graphic user interface solutions for web design and stand-
alone applications using the scripting capabilities of the
software. **Grade Option (Letter Grade or Pass/No Pass).** Degree
Credit.

**Units:** 3

**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72
Homework

**Recommended:** Eligibility for READ 836 and ENGL 836; or
ENGL 847 or ESL 400.

**Transfer Credit:** CSU

**MART 380 ADVANCED DIGITAL ANIMATION**

This course utilizes 2D digital animation software as a
medium for the development and exploration of computer-
based cinematic animations, advanced interactive projects
as well as the application of basic scripting principles. The
class is project-based and geared towards the creation of
interactive, self-contained and optimized applications, both
for a web media and offline presentations. Student projects
are developed through the integration of rich media such
as audio and video with interactive code and advanced
animation techniques. Further independent instruction
is encouraged through a wide range of sources such as
internet tutorials, books and experimentation. **Grade Option
(Letter Grade or Pass/No Pass).** Degree Credit.

**Units:** 3

**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72
Homework

**Prerequisites:** MART 379 or equivalent

**Recommended:** Eligibility for READ 836 and ENGL 836; or
ENGL 847 or ESL 400.

**MART 385 CODING FOR DESIGNERS AND ARTISTS**

Introduction to writing scripts and code for artists and
designers. Using JavaScript and ActionScript, students
learn the fundamentals of coding by creating interactive
animated graphics. Activities include drawing graphics,
controlling animation, working with sound, and interacting
with user inputs. Coding concepts covered include working
with variables and arrays, writing functions, working with
loops and logic, creating classes and objects, and translating
between different coding languages. **Grade Option (Letter Grade
or Pass/No Pass).** Degree Credit.

**Units:** 3

**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72
Homework

**Recommended:** Eligibility for READ 836 and ENGL 836; or
ENGL 847 or ESL 400.

**Transfer Credit:** CSU

**MART 389 DIGITAL MEDIA CAREERS**

Introduction to the digital media job market and
employment niches. The class describes digital media
and the varied work environments including full time and
contract opportunities, as well as job search techniques,
resume and cover letter writing skills. **Grade Option (Letter
Grade or Pass/No Pass).** Degree Credit.

**Units:** 1.5

**Hours/semester:** 24-27 Lecture; 16-18 TBA; 32-36
Homework

**Recommended:** Eligibility for ENGL 100.

**Transfer Credit:** CSU

**MART 390 PORTFOLIO CREATION**

Portfolio creation is the culminating course for those
students interested in the various Certificates of
Completion, Certificates of Proficiency, and Associate
of Arts Degree in Digital Art and Animation. Students
develop a portfolio consisting of work accomplished to
date. The portfolio may be print-based or web-based
following a format appropriate with the student’s career/
academic goals. The students also include a résumé that
is appropriate for their field of interest and learn the skills
necessary to conduct a successful job interview. **Grade Option
(Letter Grade or Pass/No Pass).** Degree Credit.

**Units:** 1.5

**Hours/semester:** 24-27 Lecture; 16-18 TBA; 32-36
Homework

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Prerequisites: MART 362 or MART 368 or MART 372 or MART 376 or MART 379 or MART 421 or MART 422 or MART 430 or MART 432 or Instructor permission via portfolio review.

Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.

Transfer Credit: CSU

MART 400 MOTION GRAPHICS
Digital integration of audio, video and motion graphics through the creation of experimental short narrative scenes. Covers preproduction and production techniques, emphasizing editing and compression methods for web or DVD delivery. Successful story-telling through the use of story boarding, camera composition and scene sequencing techniques. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 1.5

Hours/semester: 24-27 Lecture; 16-18 TBA; 32-36 Homework

Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.

Transfer Credit: CSU

MART 405 STORYBOARD DEVELOPMENT FOR ANIMATION AND INTERACTIVE MEDIA
Introduction to storyboarding and the planning processes of visual storytelling. Translation of concepts such as shot types, continuity, pacing, transitions and sequencing into a visual narrative. Exploration of cinematic vocabulary and storyboard technique in the creation of both personal and professional expression. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3

Hours/semester: 48-54 Lecture; 32-36 TBA; 64-72 Homework

Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.

Transfer Credit: CSU

MART 416 DRAWING FOR ANIMATION
Techniques and concepts of drawing for animation. Topics include 2- and 3-point perspective, anatomy (human, animal, and comparative), gesture, quick sketch, and sequential drawing. Emphasis on capturing movement and pose using line. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3

MART 417 PRINCIPLES OF ANIMATION
Using paper and pencil, students learn the fundamental principles underlying all quality animation. Techniques like squash and stretch, overlap, follow-through, weight, arcs, solid dimensional drawing, and appeal are presented. Applying traditional animation skills to applications like Flash, After Effects, and Maya are also included. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 3

Hours/semester: 48-54 Lecture; 24-27 TBA; 72-81 Homework

Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.

Transfer Credit: CSU, UC

MART 418 HISTORY OF ANIMATION
This course is a multicultural and multidisciplinary approach to the production and development of animation throughout history. Material spans the roots of animation before film technology to modern commercial and artistic animated productions. Topics include experimental and traditional animation techniques, an overview of current technologies and the aesthetics and visual styles in different genres. The history of animation is viewed through its social context and impact since its inception, through the past century to the contemporary era. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 1.5

Hours/semester: 24-27 Lecture; 16-18 TBA; 32-36 Homework

Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.

Transfer Credit: CSU, UC

MART 420 INTRODUCTION TO 3D MODELING AND ANIMATION
Basic concepts of 3D modeling and animation using Autodesk Maya including the production of three-dimensional computer animation and the different approaches to modeling in a 3D environment. Familiarization with both the interface and the production process of 3D animation. Texture mapping, lighting and
DIGITAL ART AND ANIMATION

rendering of simple animation and environments. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 3  
**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72 Homework  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Completion of MART 376 or equivalent.  
**Transfer Credit:** CSU

**MART 420 3D CHARACTER ANIMATION**

Character animation concepts including character thinking, changes of emotion, speaking (lip-sync animation) and walking cycles. Cartooning effects such as squash and stretch as well as using Autodesk Maya controls to create a believable character performance. Basic concepts dealing with animation planning, thumbnail sketches, and the effect of weight and gravity when animating a biped or any anthropomorphic character. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 3  
**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72 Homework  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Completion of MART 420 or familiarity with 3D software.  
**Transfer Credit:** CSU

**MART 421 ADVANCED 3D MODELING AND ANIMATION**

Continuation of MART 420. Further development of concepts and techniques introduced in MART 420 to establish a solid foundation in storytelling, modeling, animation, texture creation and lighting. Rendering professional final scenes state-of-the-art 3D animation software such as Autodesk Maya. Also covered is the production process and pipeline used in video game companies and animation studios and the final delivery of projects created for various media. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 3  
**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72 Homework  
**Prerequisites:** MART 420 or equivalent  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.  
**Transfer Credit:** CSU

**MART 422 INTRODUCTION TO RIGGING**

Basic and advanced rigging techniques for 3D models using Autodesk Maya. Students explore character rigging, vertex weighting, control setup, IK/FK switching, on-screen control setup and advanced blend shape techniques. Also introduced will be MEL scripting, creating and using expressions, creating channels and setting up functionality with set driven keys. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 3  
**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72 Homework  
**Prerequisites:** MART 420 Prerequisite required in order to assure that students have a basic working knowledge of 3D and the software tool being used in the course.  
**Transfer Credit:** CSU

**MART 423 3D ENVIRONMENTS AND HARD SURFACE MODELING**

Course covers the creation of 3D worlds and modeling of non-organic forms such as vehicles, surroundings, architecture and mechanical devices as well as developing the look and feel of 3D environments where characters interact. Students learn to use different reference materials and research inspirational resources when generating a world concept. Various rendering techniques and the creative presentation of final work are also covered. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 1.5  
**Hours/semester:** 24-27 Lecture; 16-18 TBA; 32-36 Homework  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Prior experience in After Effects or equivalent.  
**Transfer Credit:** CSU

**MART 430 3D CHARACTER ANIMATION**

Character animation concepts including character thinking, changes of emotion, speaking (lip-sync animation) and walking cycles. Cartooning effects such as squash and stretch as well as using Autodesk Maya controls to create a believable character performance. Basic concepts dealing with animation planning, thumbnail sketches, and the effect of weight and gravity when animating a biped or any anthropomorphic character. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 3  
**Hours/semester:** 48-54 Lecture; 32-36 TBA; 64-72 Homework  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Completion of MART 420 or familiarity with 3D software.  
**Transfer Credit:** CSU

**MART 431 SPECIAL EFFECTS AND COMPOSITING**

Techniques for the creation of special effects through digital compositing for film and video. Merging original 2D images such as photographs or other still images generated in Photoshop or Corel Painter with 3D images created in Autodesk Maya. Different output formats and uses for these compositing techniques in diverse industries. **Grade Option (Letter Grade or Pass/No Pass). Degree Credit.**

**Units:** 1.5  
**Hours/semester:** 24-27 Lecture; 16-18 TBA; 32-36 Homework  
**Recommended:** Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Prior experience in After Effects or equivalent.  
**Transfer Credit:** CSU
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. MART 420 or 3D software experience.
Transfer Credit: CSU

MART 433 ADVANCED SPECIAL EFFECTS AND COMPOSITING
Continuation of the techniques presented in MART 431. Advanced techniques for the creation of special effects for film and video. Combining 2D video and animated footage with 3D footage created in commercial 3D animation software. Creating and compositing special effects through particle generation and rendering. Optimizing and outputting final footage for use in video, film, and gaming. Letter Grade Only. Degree Credit.

Units: 1.5
Hours/semester: 24-27 Lecture; 16-18 TBA; 32-36 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. MART 431 or equivalent experience.
Transfer Credit: CSU

MART 440 VIDEO GAME 3D PRODUCTION TECHNIQUES
Video game art-specific production techniques, asset delivery, and workflow. Texture, bump, specular, and alpha maps to create the illusion of complexity in models. Focus on low polygon modeling techniques, tiling, photorealistic textures, and character animation loops. Basic Mel scripting, workflow and asset delivery methods to increase productivity and efficiency when generating game graphics. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 1.5
Hours/semester: 24-27 Lecture; 16-18 TBA; 32-36 Homework
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400. Prior experience with digital imaging and 3D software.
Transfer Credit: CSU

MART 695 INDEPENDENT STUDY
Designed for students who are interested in furthering their knowledge via self-paced, individualized instruction provided in selected areas or directed study to be arranged with instructor and approved by the division dean using the Independent Study Form. Varying modes of instruction can be used -- laboratory, research, skill development, etc. For each unit earned, students are required to devote three hours per week throughout the semester. Students may take only one Independent Study course within a given discipline. Grade Option (Letter Grade or Pass/No Pass). Degree Credit.

Units: 0.5 - 3
Hours/semester: 24-162 Lab
Recommended: Eligibility for READ 836 and ENGL 836; or ENGL 847 or ESL 400.
Transfer Credit: CSU