

ART - DIGITAL ARTS

Division: Fine Arts

Division Dean

Dr. Grant Linsell

Faculty

Phil Dimitriadis
Frank Guthrie
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Computer Animation Multi Media Certificate (<https://catalog.nocccd.edu/fullerton-college/degrees-certificates/art-computer-graphics/computer-animation-multi-media-certificate/>)

Computer Graphics Certificate (<https://catalog.nocccd.edu/fullerton-college/degrees-certificates/art-computer-graphics/computer-graphics-certificate/>)

Digital Publication Certificate (<https://catalog.nocccd.edu/fullerton-college/degrees-certificates/art-computer-graphics/digital-publishing-certificate/>)

Entertainment Arts Certificate (<https://catalog.nocccd.edu/fullerton-college/degrees-certificates/art-computer-graphics/entertainment-arts-certificate/>)

DART 100 F Introduction to Digital Art 3 Units

36 hours lecture and 54 hours lab per term. This course teaches the fundamentals of digital media to input, create, manipulate and output a variety of images. Students learn basic skills and use a varied selection of visual arts software, while gaining insights into the basic principles of digital computers and digital graphics. Extensive hands-on use of computers and other hardware allows students to build a portfolio and acquire the experience levels necessary to advance in this field. (CSU) (Degree Credit) (C-ID: ARTS 250)

DART 101 F Photoshop for Digital Arts 3 Units

36 hours and 54 hours lab per term. This course teaches the fundamentals of Adobe Photoshop to input, create, manipulate and output a variety of images. Students learn basic design skills and usage of the Adobe Photoshop, while gaining insights into the basic principles of digital manipulation and graphics. Extensive hands-on use of computers and other hardware allow students to build a portfolio and acquire the experience levels necessary to advance in this field. (CSU) (Degree Credit)

DART 102 F Introduction to Web Graphics 3 Units

36 hours and 54 hours lab per term. This course is a study of page development, navigation, graphics, animation, video, and sounds media for use on the Internet. During the course of the semester, the student builds an assigned website and a personal website. This course is intended as a gateway to a web certificate. Students can pursue additional in-depth study on the topic(s) that most attracted them during the semester. (CSU) (Degree Credit)

DART 103 F Practical Color Techniques for Digital Media 2 Units

Prerequisite(s): ART 118 F with a grade of C or better.

18 hours lecture and 54 hours lab per term. This course teaches the practical side of color theory concepts, from creating and outputting color images to using color-corrections to recreate the digital file. Students learn to apply their color knowledge using extensive hands-on, real-world examples, allowing students to acquire the experience levels necessary to advance in this field. (CSU) (Degree Credit)

DART 104 F Introduction to Maya 3D 3 Units

Advisory: DART 100 F

36 hours lecture and 54 hours lab per term. This course will introduce the Autodesk Maya 3D computer software, focusing upon polygonal modeling techniques. Students will combine modeling techniques with critical thinking assignments to design models for the entertainment industry. Students will also focus on learning design fundamentals by creating thumbnails, and silhouette sketching to aid in their design solutions. (CSU) (Degree Credit)

DART 105 F Fundamentals of Digital Media Design 3 Units

Advisory: DART 100 F

36 hours lecture and 54 hours lab per term. This course introduces basic digital design concepts in the development of solutions to design problems. Topics include the design theory, drawing, color theory, typography, illustration, animation, layout techniques, vocabulary, and knowledge of appropriate digital media output formats. Final output may integrate additional media such as animation, sound, text, and video. (CSU) (Degree Credit)

DART 106 F Intermediate Maya 3 Units

Prerequisite(s): DART 104 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This course gives the student an introduction to the intermediate use of Maya, a 3D digital program used within the entertainment/game industry to create 3D visual effects. Students will continue forward with basics learned in DART 104 F and expand their knowledge of modeling, texturing and lighting. Class assignments will cover more complex models, environments, and vehicle creations. Students will start building a portfolio of finished assignments that cover a wide range of the entertainment industry; for game design, animation and the film industry. (CSU) (Degree Credit)

DART 107 F Digital Drawing 3 Units

Advisory: ART 182 F and DART 100 F.

36 hours lecture and 54 hours lab per term. This course encompasses the use of digital-based software applications combined with digital drawing tablets and touch sensitive digital monitors. This course also prepares the student to meet industry standards and requirements for working digitally inside entertainment art production companies. (CSU) (Degree Credit)

DART 108 F Digital Drawing - Dynamic Sketching 3 Units

Prerequisite(s): DART 107 with a grade of C or better

Advisory: DART 100 F and ART 243 F and ART 182 F

36 hours lecture and 54 hours lab per term. This course is an accelerated digital drawing class applying in-depth acquisition of skill and technique demonstrated in digital drawing. This course covers essentials of draftsmanship combined with digital drawing applications Sketch Book Pro and Photoshop to conceptualize ideas from script. Emphasis on problem-solving skills, and abilities associated with designing from script, to finished conceptual sketch. Focus is on the design process of translating ideation to finished projects, developed sketching for animators, illustrators and entertainment game designers. (CSU) (Degree Credit)

- DART 109 F Environmental Sketching** 3 Units
Prerequisite(s): ART 182 F with a grade of C or better
Advisory: DART 107 F and ART 243 F
 36 hours lecture and 54 hours lab per term. This course is an ideal foundation course for the art student wanting to learn sketching techniques used for creating and strengthening environmental sketching abilities. Foundation study will focus on designing while using perspective to create thumbnails and quick sketch visualizations. Students will be exposed to the steps required to take an idea from script, to thumbnail, to rough, to finished design. This is an ideal foundational class for the student wanting to pursue a career as a concept artist or digital painter inside entertainment. (CSU) (Degree Credit)
- DART 110 F Fundamentals of Character Design** 3 Units
Prerequisite(s): ART 182 F with a grade of C or better
Advisory: DART 107 F and DART 135 F and ART 243 F
 36 hours lecture and 54 hours lab per term. This course will introduce the student to the basics of character design encompassing techniques and skills used within the creation of character development. Classroom exercises will focus on combining design principles, with perspective fundamentals to create characters for use within the fields of entertainment and commercial art. (CSU) (Degree Credit)
- DART 111 F Character Design** 3 Units
Prerequisite(s): DART 110 F with a grade of C or better
Advisory: DART 107 F and DART 135 F and ART 243 F.
 36 hours lecture and 54 hours lab per term. This course is designed to move the student from the basics learned inside DART 110 F and introduce them to more complex character development encompassing the fields of animation and game design. (CSU) (Degree Credit)
- DART 112 F Vector Graphics** 3 Units
Advisory: DART 100 F.
 36 hours lecture and 54 hours lab per term. This is a course that encompasses a basic study of digital tools to make vector-based visual art intended for publication. This course involves extensive hands-on use of the computer to build a portfolio and acquire the experience levels demanded by employers and clients. (CSU) (Degree Credit)
- DART 115 F Introduction to Prop Design (formerly ART 090AF)** 3 Units
Prerequisite(s): ART 182 F with a grade of C or better
Advisory: ART 243 F and DART 107 F
 36 hours lecture and 54 hours lab per term. This course will introduce the student to designing props. Props are objects that are used by a character during animation or gameplay. These objects consist of weaponry, vehicles, digital devices, military elements and portable objects. A prop designer is also responsible for incorporating the historical and mechanical significance of a show into the design process. Prop Design is an essential part of animation and game production, and is an entry-level position for students who want to start working in the entertainment industry. (CSU) (Degree Credit)
- DART 119 F Interior Sketching** 3 Units
Prerequisite(s): ART 182 F with a grade of C or better
Advisory: DART 107 F and DART 109 F and ART 243 F
 36 hours lecture and 54 hours lab per term. This course is an ideal follow-up course to DART 109 F, focusing on sketching techniques used for creating and strengthening interior environment sketching abilities. Interior sketching is used in the pre-production and production phase of development for game/animation/film production focusing on scene development, background design and level design. Students are advised to have a solid background in either perspective, pictorial illustration, or exterior sketching before taking this course. (CSU) (Degree Credit)
- DART 120 F 3D Modeling** 3 Units
Prerequisite(s): DART 104 F with a grade of C or better
 36 hours lecture and 54 hours lab per term. This is an intermediate modeling course focusing on more advanced 3D modeling assignments encompassing vehicle design, organic modeling, set development, and staging. The Autodesk Software application, Maya, will be used to demonstrate polygonal, nurb, and sub-division surface modeling techniques. (CSU) (Degree Credit)
- DART 121 F Futuristic Vehicle Design (formerly ACG 120 F)** 3 Units
Prerequisite(s): DART 104 F with a grade of C or better
Advisory: DART 106 F and DART 135 F and ART 182 F and ART 243 F
 36 hours lecture and 54 hours lab per term. This is an intermediate modeling course focusing on specific techniques and design theories for designing futuristic vehicles. Students will work from a traditional conceptual approach of thumbnails and rough sketches to create a final design that can then be modeled in the Maya 3D software application. (CSU) (Degree Credit)
- DART 123 F Introduction to 3D Texturing** 3 Units
Prerequisite(s): DART 100 F and DART 104 F with a grade of C or better
 36 hours lecture and 54 hours lab per term. This is an introduction course to 3D texturing using Adobe Photoshop and Allegorithmic's Substance Painter as the texturing software and Autodesk's Maya to preview and render images. The students will learn the terminology, research and digitally paint textures such as color, displacements, bumpiness and specularly, on 3D models used for animation, film, video games and consumer product. (CSU) (Degree Credit)
- DART 124 F 3D Texturing for Organic Characters** 3 Units
Prerequisite(s): DART 104 F and DART 123 F with a grade of C or better
 36 hours lecture and 54 hours lab per term. This is an intermediate class on 3D texturing organic models using Allegorithmic's Substance Painter. The student will continue forward with 3D texturing use Substance Painter, focusing on expanded skills with set assignments, concentrating on texturing organic models. The students will learn how to create HDRI images for lighting, research and digitally recreate textures for humanoids and creatures used for animation, film, video games and consumer product. (CSU) (Degree Credit)
- DART 125 F 3D Texturing for Hard Surface Modeling** 3 Units
Prerequisite(s): DART 104 F and DART 123 F with a grade of C or better
 36 hours lecture and 54 hours lab per term. This is an intermediate class on 3D texturing hard surface models using Allegorithmic's Substance Painter. The student will continue forward with 3D texturing using Substance Painter, focusing on expanded skills with set assignments, concentrating on texturing hard surface 3D model. The students will learn how to create HDRI images for lighting, research and digitally recreate textures for props and sets used for animation, film, video games and consumer product. (CSU) (Degree Credit)
- DART 132 F Digital Imaging I** 3 Units
 36 hours lecture and 54 hours lab per term. This course instructs students to make and edit images using photo-editing and other raster graphics programs. Raster graphics is the technology of choice for continuous-tone artwork suitable for traditional print formats as well as newer electronic media such as web pages on the internet. Visually, raster images are often characterized by a photographic or painterly appearance. These programs are less appropriate for stylized, hard-edge material. This course covers leading photo-editing and manipulation software, with plenty of hands-on use of the computer to build a portfolio and acquire the experience levels demanded by employers and clients. (CSU) (Degree Credit)

DART 133 F Marvelous Design I - Introduction to Cloth Simulation 3 Units

36 hours lecture and 54 hours lab per term. This course is an introduction to cloth simulation using Marvelous Designer, one of the leading software used to create digital clothing simulations in the fashion, video game, engineering, science and entertainment industries that mimic the real-world properties of fabrics. Students learn to design and model digital clothing simulations using traditional pattern-making techniques such as sewing and stitching to acquire the experience levels necessary to advance in their chosen field. (CSU) (Degree Credit)

DART 134 F Marvelous Designer II: Production Techniques 3 Units

Prerequisite(s): DART 133 F with a grade of C or better.

36 hours lecture and 54 hours lab per term. This is an advanced level cloth simulation course using Marvelous Designer, one of the leading software in this field that mimics the real-world properties of fabrics. Students learn to design and model production-driven digital cloth simulations based on traditional pattern-making techniques such as sewing and stitching to acquire the experience levels necessary to advance in the fashion, video game, engineering, science and entertainment industries. (CSU) (Degree Credit)

DART 135 F Introduction to Digital Painting 3 Units

Advisory: ART 182 F and DART 100 F.

36 hours lecture and 54 hours lab per term. This course will introduce the student to the Photoshop software application, the most commonly used application for digital painting within the entertainment industry. This course will focus on digital painting techniques within the Photoshop software application, and how it applies towards creating digital artwork. (CSU) (Digital Credit)

DART 136 F Intermediate Digital Painting 3 Units

Prerequisite(s): DART 135 F with a grade of C or better

Advisory: DART 107 F and ART 243 F

36 hours lecture and 54 hours lab per term. This course continues forward painting with the Photoshop digital application focusing on expanded skill set assignments with emphasis on vehicle design, character creation and environmental design. Class assignments are geared around daily job requirements within the entertainment industry for gaming and animation. (CSU) (Degree Credit)

DART 137 F Advanced Digital Painting 3 Units

Prerequisite(s): DART 136 F with a grade of C or better

Advisory: DART 107 F and DART 108 F and ART 243 F

36 hours lecture and 54 hours lab per term. This course is based upon increasing a mastery of digital painting technique using the Photoshop application to create vehicle design, character creation, and environmental design. Class assignments are geared around daily job requirements within the entertainment industry for gaming and animation. (CSU) (Degree Credit)

DART 138 F Digital Painting for Production 3 Units

Prerequisite(s): DART 107 F pr DART 136 with a grade of C or better.

Advisory: ART 243 F

36 hours lecture and 54 hours lab per term. This course will introduce the student to working and delivering production level artwork, adhering to industry standard in entertainment production. Students will be painting with the Photoshop digital application, focusing on advanced level assignments prepared by industry professionals. Assignments will focus upon MAYA digital render paint-overs, vehicle design, character creation, and environmental design. Class assignments are geared around daily job requirements within the entertainment industry for gaming and animation. (CSU) (Degree Credit)

DART 140 F Digital Publishing I 3 Units

36 hours lecture and 54 hours lab per term. This course focuses on the use of computers as a design aid to generate "camera ready" page layouts, integrating graphics and text. Emphasis is on design of the page, use of the computer programs, and printing skills required for a finished product. Open lab work may be required to complete assignments. (CSU) (Degree Credit).

DART 146 F Digital Publishing II 3 Units

36 hours lecture and 54 hours lab per term. This course focuses on the use of advanced options of industry standard software as a design aid to generate "camera ready" page layouts. Emphasis is on developing experience in varied types and sizes of commercial projects. Open lab work may be required for completing assignments. (CSU) (Degree Credit)

DART 148 F Introduction to Narrative Illustration 3 Units

Prerequisite(s): ART 137 F or ART 182 F, with a grade of C or better.

Advisory: ART 243 F and DART 107 F and DART 135 F.

36 hours lecture and 54 hours lab per term. This course is designed to introduce the student to narrative illustration concepts incorporating traditional draftsmanship skill sets, combined with entertainment design skill sets, and digital software to produce narrative story illustrations for entertainment, animation, and storytelling careers. (CSU) (Degree Credit)

DART 150 F 3D Computer Animation 3 Units

Prerequisite(s): DART 104 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This course is an intermediate study of the animation sub-menu tab in the Maya 3D software application. This course will focus on introducing the student to basics of 3D computer animation. The Maya software is commonly used within film, game and animation industries for creating animations, and special effects. (CSU) (Degree Credit)

DART 151 F Introduction to Character Animation and Rigging 3 Units

Prerequisite(s): DART 104 F and DART 150 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This is an introductory course in rigging and animation, focusing in the movement of characters in 3D space using Autodesk's Maya, the leading software in the entertainment industry. The student will learn how to implement rigs and execute animation of characters in a 3D environment, interpreting the 12 Principals of Animation in the performance of their character's movements. Final animation renders will integrate additional media such as sound, to be used in a variety of visual media, from films, television, consumer products to video games. (CSU) (Degree Credit)

DART 152 F Pre Visual Animation (formerly ACG 150 F) 3 Units

Prerequisite(s): DART 104 F and DART 150 F with a grade of C or better.

Advisory: ART 215 F

36 hours lecture and 54 hours lab per term. This course is an intermediate study in animation, focusing upon pre visual camera animation. Animating cameras and setting up scenes for pre visual animation requires an education in cinematography, story boarding, and timing. Pre visual animation has become a new position within the entertainment industry providing early solutions for games, movies, special effects, and television commercial productions. (CSU) (Degree Credit)

DART 153 F Introduction to Digital Sculpting with ZBrush 3 Units

Advisory: DART 100 F and DART 104 F

36 hours lecture and 54 hours lab per term. This is an introductory course in digital sculpting introducing the student to the Pixologic ZBrush 3D Digital Sculpting application. The ZBrush application can simulate traditional sculpting in clay to create high resolution digital sculpted models, and images for film, game, and animation productions. (CSU) (Degree Credit)

DART 154 F Creature Sculpting with ZBrush**3 Units****Prerequisite(s):** DART 153 F with a grade of C or better**Advisory:** DART 100 F and DART 104 F.

36 hours lecture and 54 hours lab per term. This is an intermediate course in digital sculpting concentrating in Human and Creature Anatomy using Pixologic's ZBrush, a 3D digital sculpting software. ZBrush simulates traditional clay sculpting digitally, creating high-resolution models, which can then be rendered into images or models for the entertainment, consumer product and manufacturing industries. (CSU) (Degree Credit)

DART 155 F Hard Surface Sculpting with ZBrush**3 Units****Prerequisite(s):** DART 153 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This is an intermediate course in digital sculpting concentrating in Hard Surface Digital Sculpting using Pixologic's ZBrush, a 3D Digital Sculpting application. ZBrush simulates traditional clay sculpting digitally, creating high-resolution models, which can then be rendered into images or models for the entertainment, consumer product and manufacturing industries. (CSU) (Degree Credit)

DART 156 F 3D Printing Techniques with ZBrush**3 Units****Prerequisite(s):** DART 153 F with a grade of C or better.**Advisory:** DART 100 F and DART 104 F.

36 hours lecture and 54 hours lab per term. This is an intermediate course in digital sculpting concentrating in using Pixologic's ZBrush, a 3D Digital Sculpting application, for 3D printing. ZBrush simulates traditional clay sculpting digitally, creating high-resolution models, which can then be exported to all types of Additive Process 3D printers to generate physical models for the entertainment, consumer product and manufacturing industries. (CSU) (Degree Credit)

DART 157 F Introduction to 3D Printing and Fabrication**3 Units**

36 hours lecture and 54 hours lab per term. In this course, students will explore the different additive manufacturing processes of 3D printing, from 3D digital file manipulations using Autodesk's MeshMixer, file slicing and output for the creation of physical models, their refinement and presentation using traditional methods to create a finish piece for the entertainment, consumer product, medical/biotech, automotive and manufacturing industries. (CSU) (Degree Credit)

DART 158 F Fusion 360 I - Introduction to Product Design**3 Units**

36 hours lecture and 54 hours lab per term. This course introduces students to the basics of computer-aided design, engineering, and manufacturing using Fusion 360 to create product design for the entertainment, transportation, medical and manufacturing industries. From sketching, drafting, modeling, simulations, animation and rendering, the students learn Fusion 360 based on extensive real-world examples, allowing them to acquire the experience levels necessary to advance in their chosen fields. (CSU) (Degree Credit)

DART 159 F Fusion 360 II: Product Design Production Techniques**3 Units****Prerequisite(s):** DART 158 F with a grade of C or better.

36 hours lecture and 54 hours lab per term. This course introduces students to advanced product design and production techniques using Fusion 360 to create products for the entertainment, transportation, medical and manufacturing industries. From sketching, drafting, modeling, simulations, animation and rendering, the students learn advanced product design production techniques based on extensive real-world examples, allowing them to acquire the experience levels necessary to advance in their chosen fields. (CSU) (Degree Credit)

DART 161 F Body Dynamic for Character Animation with Maya**3 Units****Prerequisite(s):** DART 150 F and DART 151 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This is an intermediate course in character rigging and animation, focusing in body dynamics. In this class, students will continue to implement the movement-mechanics of characters in 3D space, in order to explore more in depth the action of forces to the body, forces such as gravity and weight, which are the foundations of the 12 Principles of Animation. Final animation renders will integrate additional media such as lighting and texturing, to be used in a variety of visual media, from films, television, consumer products to video games. (CSU) (Degree Credit)

DART 162 F 2D Computer Animation**3 Units**

36 hours lecture and 54 hours lab per term. This course is a study of digital tools to represent moving objects in 2D space. Students will learn how to create 2D computer animation. Final output may integrate additional media (sound, text, graphics, and video), and find distribution as CD-ROMs, webpages, complete websites, videos, cartoons, animated shorts, games, education, instructional training, and creative self-expression. (CSU) (Degree Credit)

DART 164 F Interactive Multimedia Design**3 Units**

36 hours lecture and 54 hours lab per term. This course focuses on designing interactive multimedia presentations by integrating a variety of programs and media (sound, text, graphics and video). Final output may take the form of DVDs, CD-ROMs, websites, videos, cartoons, animated shorts, games, educational software and creative self-expression. Open lab work may be required to complete assignments. (CSU) (Degree Credit)

DART 170 F Digital Photo Editing I**3 Units**

36 hours lecture and 54 hours lab per term. This course focuses on digital photography and the appropriate level usage of software for the manipulation of raster images for the development of fine art and photographic images appropriate for advertising design. Digital cameras, scanners, photo CDs, and video images provide the basis for image manipulation pushing to the extreme of digital photography. Course topics include camera selection, image enhancement, editing, compositing, retouching, photomontages, pre-press, color management, photo printing, color separations and service bureaus. (CSU) (Degree Credit)

DART 171 F Facial Acting for Character Animation with Maya**3 Units****Prerequisite(s):** DART 151 F and DART 161 F with a grade of C or better

36 hours lecture and 54 hours lab per term. This course further develops the student's knowledge on the creation of rigs and animation-techniques for a character's acting, based on live-action recordings and the implementation of the 12 principles of Animation. The student will learn how to analyze video references, how to act, record and utilize their own footage as a guide for the rigging and animation of specific shops, concentrating on the acting of 3D characters in 3D environments to be used in a variety of visual media, from films, television, consumer products to video games. (CSU) (Degree Credit)

DART 172 F Digital Image Editing II**3 Units****Advisory:** DART 170 F

36 hours lecture and 54 hours lab per term. This course focuses on getting a good digital image and editing digital imagery and the usage of software for the manipulation of raster images for the development of fine art and photographic images appropriate for advertising design and digital media and art. Digital cameras, scanners, photo CDs, and video images provide the basis for image manipulation pushing to the extreme of digital photography. Course topics include equipment choices, image enhancement, editing, compositing, retouching, photomontages, pre-press, color management, photo printing, color separations and service bureaus and methods of delivery. (CSU) (Degree Credit)

DART 180 F Digital Video**3 Units**

36 hours lecture and 54 hours lab per term. This course is an examination of digital video editing techniques including the professional manipulation of sound and beginning motion graphics and compression techniques. This course includes the study and hands-on use of computers, assorted software, SDHC card-based digital video cameras, and other tools and techniques used for digitizing, editing and composition of video and audio sources. This course provides an in-depth exploration of digital video as used in the fields of multimedia, video/film, websites, DVD/Blu Ray disk creation, museum installations and video for cellular and mobile devices. (CSU) (Degree Credit)

DART 181 F Advanced Digital Video**3 Units****Advisory:** DART 180 F

36 hours lecture and 54 hours lab per term. This course builds on the basic editing skills learned in DART 180 F. This course is an examination of intermediate to advanced digital video editing techniques including the professional manipulation of sound. Video distribution includes multimedia video, online and offline video editing, interactive video inclusive websites, DVD/Blu Ray disk creation, video for cellular and mobile devices. (CSU) (Degree Credit)

DART 182 F Motion Graphics and Special Effects**3 Units****Advisory:** DART 180 F or two years experience with contemporary editing and compositing software or one year of professional industry experience in editing and/or motion graphics

36 hours lecture and 54 hours lab per term. This course builds on the basic editing skills learned in DART 180 F. This course is an introduction to motion graphics, digital composition, sound design and special effects for multimedia, 2D, 3D space digital video, installations and mobile devices. (CSU) (Degree Credit)

DART 195 F Production Design for Entertainment - Eastern Civilizations**3 Units****Prerequisite(s):** DART 109 F with a grade of C or better**Advisory:** ART 243 F and DART 107 F and DART 135 F

36 hours lecture and 54 hours lab per term. This course will introduce the student to environmental-production design techniques for entertainment focusing on the architectural development of Eastern civilizations, and their influence upon production-design for film, games, and animation. (CSU) (Degree Credit)

DART 196 F Production Design for Entertainment: Western Civilizations**3 Units****Prerequisite(s):** DART 109 F with a grade of C or better**Advisory:** ART 243 F and DART 107 F and DART 135 F

36 hours lecture and 54 hours lab per term. This course will introduce the student to environmental-production design techniques for entertainment focusing on the architectural development of Western civilizations, and their influence upon production design for film, games and animation. (CSU) (Degree Credit)

DART 197 F Production Design for Entertainment - Early Science Fiction**3 Units****Prerequisite(s):** DART 109 F with a grade of C or better**Advisory:** ART 243 F and DART 107 F and DART 135 F

36 hours lecture and 54 hours lab per term. This course will introduce the student to "environment-production" design techniques for entertainment focusing inside the history of early science fiction. Students will examine the historical architecture used within the development of the early science fiction genre relating towards film, games, and animation. (CSU) (Degree Credit)

DART 198 F Production Design for Entertainment: Late Science Fiction**3 Units****Prerequisite(s):** DART 109 F with a grade of C or better**Advisory:** ART 243 F and DART 107 F and DART 135 F

36 hours lecture and 54 hours lab per term. This course will introduce the student to "environment-production" design techniques for entertainment focusing inside the history of late science fiction. Students will examine the historical architecture used within the development of the late science fiction genre relating towards film, games, and animation. (CSU) (Degree Credit)