

# CREATIVE MEDIA

## Film & Digital Media Courses

### FDMA 1210. Digital Video Production I

#### 3 Credits (2+4P)

An introduction to digital video production. Students learn camera operation, lights and audio equipment. Hands-on production is completed in the studio and on location.

#### Learning Outcomes

1. Plan and produce a digital video project
2. Apply post-production workflow
3. Work in team and as individual to complete digital video projects.

### FDMA 1220. Introduction to Digital Video Editing

#### 3 Credits (3)

In this course, students learn the basics of the post-production process for non-linear video editing. Students work with multiple video formats and create short movies for multiple distribution platforms. Skills include media management and professional terminology. Sections on the Main Campus will be restricted to CMI students.

#### Learning Outcomes

1. Define concepts related to digital video editing.
2. Use non-linear video editing software for editing a short film
3. Enhance storytelling through the use of continuity, timing, cutaways, intercutting, compositing, transitioning, jump cutting, montaging and animating.
4. Use text, titles, transitions, video effects, sound effects, dialogue, and visual assets for digital video editing.

### FDMA 1415. Principles of Sound

#### 3 Credits (2+2P)

The creation of a professional quality original media soundtrack is possible for relatively low production/post production cost. This class is designed to give the student an overview of creating sound for a variety of digital media. Topics include acoustic principles, sound design, audio hardware, recording techniques; and editing, processing, and multi-track mixing, using software applications. Restricted to: Community Colleges only.

**Prerequisite(s)/Corequisite(s):** FDMA 1220.

#### Learning Outcomes

1. Record and edit wild sound effects and synced dialogue
2. Discover, upload, and edit on-line music, ambience and sound effect loops
3. Implement audio design theories
4. Create an aesthetic soundtrack which incorporates multiple elements and dimensions
5. Design, edit, process, mix and master a synced multi-track soundtrack
6. Demonstrate capable use of digital audio production and post-production workflow
7. Produce short audio projects which meet media industry technical standards

### FDMA 1510. Introduction to 3D Animation

#### 3 Credits (3)

This course provides an overview of 3D animation production processes. Students will be introduced to basic story development and the creation of computer-generated assets and cinematic sequences. The course will survey specialty areas of digital animation and various software and

techniques applied in entertainment and information media. Students will review and critique other's animation, as well as plan and produce original animation for review by classmates and as part of a CGI demo reel.

**Prerequisite(s):** FDMA 2382 or FDMA 2381 or consent of instructor.

#### Learning Outcomes

1. Demonstrate a fundamental understanding of 3D animation history and principles.
2. Analyze animation work of other artists.
3. Appropriately utilize the various media technologies for digital 3D animation.
4. Demonstrate and apply basic techniques of digital 3D animation.
5. Demonstrate and apply basic processes of creating CGI for a narrative.
6. Apply some basic strategies for developing and creating a story visually, and create original animations.
6. Present original animations to instructor and classmates for critique.
7. Create a CGI demo reel of work completed during the course.

### FDMA 1555. Introduction to the Creative Media Industry

#### 3 Credits (3)

This class is an introductory course for students who are beginning their understanding of Media and how it affects them and our society. It offers a broad-stroked view of the entire industry including Marketing, Production, History, Jobs, Design, Architecture, New Media Literacy, and industry standards. Students will listen to experts in the field, get involved in open discussions about the industry and use new information to complete hands-on individual & group assignments.

#### Learning Outcomes

1. The basic philosophies and methods that guide people working in the Creative Media industry.
2. Knowledge of a wide variety of different jobs, qualifications and paradigms used in the industry.
3. Marketing, Production, Budgets, History, New Media, Inspiration and other aspects of the industry.
4. An accurate view of the Creative Media field.

### FDMA 1715. 2-D Compositing & FX

#### 3 Credits (3)

This course will familiarize students with the process of compositing and creating special effects for animation using industry standard software. Students will learn how to assemble an animated scene and use advanced 3D lighting, spacing, and digital effects to achieve a dynamic, professionally rendered look.

**Prerequisite:** FDMA 2710.

#### Learning Outcomes

1. The goal of this class is for students to learn how to use advanced compositing and effects tools in order to achieve a more dynamic and professional visual look for their animations or motion graphics.
2. By the end of the class, you should be proficient animation compositors that can assemble and synthesize a basic animation into a rendered, visually sophisticated piece.
3. Students who pass this class will have a basic to intermediate knowledge of Adobe After Effects

### FDMA 2310. History of Cinema I

#### 3 Credits (3)

This course surveys the history of cinema - investigating the process by which the original "cinema of attractions" evolved into a globally dominant form of visual storytelling. We will explore the development of cinema both as an art form and as an industry, and consider the technological, economic, cultural factors, as well as many key

international movements that helped shape it. Restricted to: G-CMI, DFM, ANVE majors.

#### **Learning Outcomes**

1. Gain a greater appreciation for the history of cinema
2. Develop knowledge of the key eras in the history of U.S. cinema
3. Learn the characteristics of major movements in international cinema
4. Understand the various elements that go into telling a story in cinema: screenplay, narrative devices, director, producer, talent, production design, cinematography, editing, sound design
5. Learn how major genres in U.S. cinema have evolved in the past 100+ years
6. Gain a basic understanding of the operations and organization of the Hollywood film industry, from the studio system until today
7. Gain an awareness of the shifts in the film industry that present new opportunities for independent filmmakers
8. Understand the importance of learning about the history of cinema to the process of becoming a filmmaker
9. Strengthen public speaking skills

#### **FDMA 2311. History of Animation**

##### **3 Credits (3)**

Explores the history of Animation as an art form and industry through readings, screenings, lecture and periodic guest speakers. Restricted to: G-CMI, ANVE, DFM majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

1. To expand your knowledge of the history of animation and its evolution to the modern day.
2. To expand your ability to view animation critically and to understand its early connections to cartooning as well as its ongoing cultural presence and relevance.
3. To expand your comfort with accessing information and completing assignments both online and independently. Canvas will be utilized for many of our readings and for some response assignments.

#### **FDMA 2381. Storyboarding**

##### **3 Credits (3)**

Examines effective writing principles to create storyboards that communicate the overall picture of a project, timing, scene complexity, emotion and resource requirements. Further, the purpose of this course is to introduce students to the principles of visual storytelling—in film—through the use of the storyboard. In other words, to show how storyboards are critical "architectural component" of the filmmaking process, used as a blueprint (or guide) to communicate the complex elements of a film story. Crosslisted with: ENGL 2381. Restricted to: DFM, ANVE, G-CMI majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

1. Learn to conceive and draw original images.
2. Learn to use images to tell a story.
3. Design, develop, and order images (shots) into storyboarded scenes.
4. Understand how storyboarded sequences are a tool in the process of filmmaking.
5. Understand how the storyboard image is translated from the written page.
6. Build scenes from the scripted sequences into a storyboard.

#### **FDMA 2382. Principles of Story Across the Media**

##### **3 Credits (3)**

The purpose of this course is to help students understand the basic elements of narrative structure (e.g. character, dramatic conflict, theme, etc.) and how these elements may be used effectively in media

expression. Crosslisted with: ENGL 2382. Restricted to: G-CMI, DFM, ANVE majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

1. Identify the elements of storytelling in scripted text or improvised performance
2. Understand how these elements work together across different media
3. Apply these elements of storytelling in original work
4. Appreciate and master these elements for independent or collaborative work

#### **FDMA 2510. Introduction to Sound Design for Film**

##### **3 Credits (3)**

This course is an introduction to the principles, techniques and applications of sound design and film scoring. Students learn how sound affects storytelling in a film, examine the role of sound from the script to screen, and the professional process of creating a soundtrack. Students learn how to use sound equipment in a production environment and execute basic techniques used to develop a soundtrack. Crosslisted with: FDMA 1415.

**Prerequisite(s)/Corequisite(s):** FDMA 2382. Restricted to: DFM, ANVE majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

1. Compare the properties and propagation of sound and importance of sound to the storytelling aspect of filmmaking
2. Learn the process of designing a soundtrack for film and recording live audio dialogue for use in post-production editing.
3. Learn methods of capturing sound including live audio recording, dialogue recording, foley, orchestration and audio dialogue replacement
4. Design a soundtrack for motion media project.

#### **FDMA 2520. Introduction to Cinematography**

##### **3 Credits (3)**

The Director of Photography (or Cinematographer), in close collaboration with the Director and Production Designer, helps determine the look of a film. This course is designed to introduce students to the technical and aesthetic fundamentals of creating, developing, and collaborating on the visual elements of storytelling, using camera framing, lensing, and lighting fundamentals such as shadows, light and color. May be repeated up to 6 credits. only. **Prerequisite(s)/Corequisite(s):** FDMA 2382 (Las Cruces Campus) or FDMA 1210 (Community College Campus(es))

#### **Learning Outcomes**

1. Define and explain the fundamental concepts of cinematography, such as exposure, lighting solutions, and color temperature.
2. Understand how cinematography brings the Director's vision to reality.
3. Demonstrate proficiency in plotting and executing interior and exterior lighting solutions.

#### **FDMA 2530. Introduction to 3D Modeling**

##### **3 Credits (3)**

This course will introduce 3D modeling methods and current practices. Students will learn preliminary and detailed modeling techniques using industry standard software. Methods will emphasize formal and functional aspects of modeling as they apply to mechanical, organic, and sculpted topology for application in animation, games, and information media. May be repeated for a maximum of 6 credits.

#### **Learning Outcomes**

1. Identify the role of a 3D modeler in a production pipeline within various fields of digital animation.
2. Apply techniques in modeling mechanical and organic objects.

- Utilize tools available in professional 3D modeling software.
- Create simple animations and renders.
- Present original animations to instructor and classmates for critique.
- Create a demo reel of work completed during the course.

### **FDMA 2535. Digital Illustration Techniques**

#### **3 Credits (3)**

Introductory course examining traditional artistic expressions and translating visual art experiences into a digital art medium to enhance visual storytelling. Students acquire basic principles of drawing and painting through hands-on experience manipulating tonal value, composition, form development, light and shadow, color theory, rendering realism, and graphic design. Restricted to: DFM, ANVE majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

- Be familiar with the CMI computer system, facilities, equipment and policies.
- Appropriately utilize the various media technologies available at CMI for digital illustration.
- Understand the different roles and areas of digital illustration.
- Understand and apply some basic techniques of digital illustration.
- Understand and apply some basic processes of creating pleasing images based on knowledge of traditional art principles.
- Begin to apply some basic strategies for developing and creating aesthetically pleasing images.

### **FDMA 2710. Beginning 2-D Animation**

#### **3 Credits (3)**

Students will learn the basics of digital 2D animation by working through a variety of exercises, creating an original storyboard, and animating five or more shots utilizing industry standard software. Restricted to: DFM, ANVE majors. Restricted to Las Cruces campus only.

#### **Learning Outcomes**

- The student will demonstrate an overall knowledge of computers as a tool of the animation artist and be able to produce simple animations using the techniques learned in class.
- Use major software tools with ease
- Manage time lines through key frames
- Build storyboards
- Demonstrate knowledge of 2-D and animation terminology
- Produce actions, set environments and constraints for 2-D animation
- Render full animation.

### **FDMA 2720. 3D Animation**

#### **3 Credits (3)**

Overview of the essentials and principles of 3D animation; creative methods for using industry standard tools to produce the illusion of movement for storytelling and creating 3D effects. Topics include, keyframe and curve animation, kinematics, cycle animation, camera animation, deformers, dynamics and constraints.

**Prerequisite:** FDMA 1510, FDMA 2710 or consent of instructor.

#### **Learning Outcomes**

- Clearly describe the role of an animator in cinema, gaming and related fields.
- Recognize leading animators and their methods.
- Demonstrate knowledge of advances in contemporary animation.
- Utilize current industry standard animation tools.
- Apply fundamental animation processes and techniques

### **FDMA 2725. Rigging for 3D Animation**

#### **3 Credits (3)**

This course will introduce principles and practices of current 3D animation rigging. Students will develop fundamental methods necessary to create character rigs. Students will learn aesthetic, technical, and optimization concepts as they apply to organic and mechanical designs. Topics will include: hierarchies, constraints, deformation rigging, skeleton creation, skinning, textures, forward and inverse kinematics, controls, body and facial rigging. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 1510.

#### **Learning Outcomes**

- Understand what Rigging is and the role it plays in the world of cinema and video games.
- Be familiar with industry professionals and their techniques and approaches to rigging.
- Understand and be able to apply the fundamentals of rigging to industry standard applications.
- Demonstrate ability to rig basic to intermediate machines, bipeds and quadrupeds

### **FDMA 2745. Light, Shade, Render**

#### **3 Credits (3)**

This course will explore the theory and practice of 3D lighting and rendering methodologies. Techniques covered will implement cameras, lighting sources, textures, surface-mapping and algorithmic rendering to produce stylized and photo realistic images. Topics covered will include direct and indirect lighting, shaders that simulate physical substances and effects, rendering multiple passes and simulating physical lens effects. Restricted to: DFM, ANVE majors. Restricted to Las Cruces campus only.

**Prerequisite:** FDMA 1510 OR FDMA 2530, or Consent of Instructor.

#### **Learning Outcomes**

- Understand the role of lighting and surfacing to tell a story.
- Be familiar with leading lighting artist and their approaches.
- Utilize the software implemented in the entertainment industry.
- Understand and apply fundamental lighting and rendering techniques.
- Demonstrate ability to create successfully rendered scenes from concept through production.

### **FDMA 2755. Drawing for Animation**

#### **3 Credits (3)**

Introductory study of the human and animal form in relation to animation. Students learn fundamentals and exaggeration of the figure, as related to proportion, rhythm, mechanics, and motion. Areas of focus are: basic form, proportion, shape, contour, gesture, anatomy, portraiture, perspective, clothing effects and drawing from observation. Restricted to: CMT, DFM, ANVE majors.

#### **Learning Outcomes**

- Students will have an opportunity to gain hands on experience using industry standard state of the art animation software.
- Understand what the basics of drawing the human form.
- Have a general understanding of human anatomy as needed for the artist.
- Be able to design the human form from imagination.

### **FDMA 301. Sound Design II**

#### **3 Credits (3)**

Mixing and balancing dialogue, sound effects and music in postproduction. Study the role of sound effects, foley, soundtrack choices, and music supervision. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 2510.

**FDMA 303. Cinema Review and Critique**

**3 Credits (3)**

This course is for the student who wants to learn to be a more active, intelligent film viewer. It encourages critical thinking about films and educates students on how to write a film review. Students will meet in the movie theater to watch essential films that serious movie watchers should see from classic motion pictures, to current release major motion pictures, independent films and world cinema features. The course will serve as a guide to the illuminating process of evaluating, analyzing, and reviewing movies. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 2382.

**FDMA 305. Business of Filmmaking/Animation**

**3 Credits (3)**

Explores the roles of unions, basic contracts, legal arrangements, and the economics of the production process, distribution, and financing. Consent of Instructor required.

**Prerequisite(s):** FDMA 2382.

**FDMA 308. Writing for Animation**

**3 Credits (3)**

This class explores methods for, and approaches to, writing for animation. Students study and produce scripts for a range of animation outlets while engaging in writing exercises based on character and story development.

**Prerequisite(s):** FDMA 2382 or consent of instructor.

**FDMA 309. Screenwriting I**

**3 Credits (3)**

Writing intensive. Students learn the craft of screenwriting, honing skills in writing dialogue and visual narrative, crafting dynamic characters and dramatic action. Original student scripts will be performed and discussed in class. Crosslisted with: ENGL 309 and THEA 306.

**Prerequisite(s):** ENGL 2382/FDMA 2382 or consent of instructor.

**FDMA 310. Cinematography II**

**3 Credits (3)**

Advanced tools of the cinematographer, lighting and composition techniques. Artistic and technological elements of cinematography. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 2520.

**FDMA 311. Editing II**

**3 Credits (3)**

Advanced techniques in digital films using professional non-linear editing systems. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 1220.

**FDMA 312. Post Production Color Grading**

**3 Credits (3)**

Color grading is an important part of the overall look of a film. It used to be a craft that only a small number of people knew how to do. However, due to advances in technology and business models, more and more people are diving into color grading. This class is an introductory look into the art and techniques of color grading. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 1220.

**FDMA 314. Acting for Film**

**3 Credits (3)**

Techniques for film and television acting. In-depth analysis of film performance creation among actor, director, writer, cinematographer, and editor. Restricted to: THTR, DFM majors.

**Prerequisite(s):** FDMA 2382.

**FDMA 318. Documentary Production**

**3 Credits (3)**

Survey of theory and history of documentary film making including viewings and discussions of notable films and directors. Class works with actual documentary project. May be repeated up to 6 credits. Restricted to: ANVE, DFM majors.

**Prerequisite(s):** FDMA 1220, FDMA 2520.

**FDMA 320. Race and Gender in Film**

**3 Credits (3)**

In this course students will analyze film as an art form as well as be exposed to Race and Gender Feminist Film Theory. We will consider the role of film in our understandings of sex, gender and sexuality. Through discussions and writing we will work to discern relevant social, political, ideological, and aesthetic concepts in the media we examine. Crosslisted with: ENGL 399, GNDR 450 and GNDR 550.

**FDMA 325. Film Festival Production**

**3 Credits (3)**

A course for students interested in learning about the processes of orchestrating an independent film festival. Students will engage in a professional environment with other film students and filmmakers, as well as learn about film event administration and organization. May be repeated up to 6 credits. Restricted to: DFM, ANVE majors.

**FDMA 328. Producing**

**3 Credits (3)**

Examines the role of the Producer, essential to every film production. The course will revolve around the best practices in organizational design, the production process, the budgeting process, financial controls, scheduling, insurance and distribution.

**Prerequisite(s)/Corequisite(s):** FDMA 2510, FDMA 1220, FDMA 2382. Restricted to: ANVE, DFM majors.

**FDMA 332. 3D Character Animation**

**3 Credits (3)**

Essentials and principles of 3D character animation. Techniques and craft of breathing life into characters through movement, including dynamic poses, blocking action, run and walk cycles, lip syncing and realism. Students will plan and produce original animation for review by classmates and as part of a CGI demo reel. THEA 1221, Acting and FDMA 2510, Sound Design are recommended. Restricted to: DFM, ANVE majors.

**Prerequisite:** THEA 1210 (or FDMA 314 or FDMA 348), FDMA 1510 and FDMA 2720 or consent of instructor.

**Learning Outcomes**

1. Understand the character animation pipeline.
2. Understand basic body mechanics and how to represent them with a 3D character
3. Understand the twelve principles of animation on a deeper level and be able to apply them in individual work
4. Developing a vocabulary and critical eye in order to critique each other's work.

**FDMA 341. Visual Effects I**

**3 Credits (3)**

This course will educate students on the fundamental principles, skills, and artistry needed to successfully integrate live action footage and computer generated imagery into technically correct and narrative engaging cinematic shots. Topics include: Cinematography for visual

effects; Green screen setup/lighting/keying; Intermediate compositing techniques; Editing, color correction and grading. Restricted to ANVE, DFM Majors. May be repeated up to 3 credits.

**Prerequisite:** FDMA 1510, FDMA 2530, FDMA 2745 (or consent of instructor).

#### **Learning Outcomes**

1. At the end of this class, students will produce (alone or in a group), an engaging, well-thought out and professionally executed visual story from scratch - using a combination of live action plates, green screen elements and seamlessly integrated CGI elements.
2. Students will become fluent in setting up and operating a professional camera proper cinematography techniques.
3. Students will shoot green screen elements/plate using proper cinematography techniques.
4. Students will become fluent in editing software to edit an engaging narrative.
5. Students will become fluent in node-based compositing software to produce seamless, photoreal integrations of CGI elements and green screen mattes in live action plates.
6. Students will use color-correction and color grading techniques and use color as a narrative element.
7. Students will correctly adhere to established production standards and protocols.

#### **FDMA 348. Acting for Animation**

##### **3 Credits (3)**

This course explores performance techniques relevant to animators including 2D and 3D animation and motion capture. Students learn to create dynamic, dramatic performances and believable character interactions for animation based reference. Students learn to analyze scripts, sound, acting, action and performance for production. Topics include: acting theory, emotional/mental states, character movement and style, dynamic facial expression, scene construction, posing, layering and rhythm, simplification and exaggeration, and lip sync. Restricted to: ANVE,DFM majors. May be repeated up to 3 credits.

#### **Learning Outcomes**

1. Understand the different roles and character mindsets of digital animation in cinema.
2. Understand and apply some basic acting skills into animation reference.
3. Understand and apply some basic processes of creating reference for a narrative.
4. Begin to apply some basic strategies for developing and creating a story visually.

#### **FDMA 350. Intermediate 2D Animation**

##### **3 Credits (3)**

Students will begin to refine their animation skills by animating more complex characters utilizing the Principles of Animation. They will practice these advanced drawing and motion techniques in a variety of exercises and projects using industry standard software. Areas of focus include: squash and stretch, cloth simulation, the successive breaking of joints, and biped walk cycles. May be repeated up to 3 credits.

**Prerequisite:** FDMA 2710.

#### **Learning Outcomes**

1. Students will refine foundational animation skills.
2. Students will learn and show proficiency in related industry-standard software.

3. Students will apply skills to more advanced projects than in previous 2D courses

#### **FDMA 360. Previsualization**

##### **3 Credits (3)**

Implements 3D animation tools in preproduction shot and sequence design for motion picture and broadcast industries; including 3D storyboarding, technical planning and editing basics. LC Campus Only. Restricted to ANVE, DFM majors.

**Prerequisite(s):** FDMA 1510, FDMA 2530, and FDMA 2720 or consent of instructor.

#### **FDMA 362. Motion Graphics**

##### **3 Credits (3)**

Students will learn the industry standard motion graphics techniques through a variety of exercises and projects that combine animation, text, visual effects, and sound. Restricted to: ANVE, DFM majors.

**Prerequisite:** FDMA 1715.

#### **Learning Outcomes**

1. Understand the context for and learn to create, combine, and animate text with graphics.
2. Explore various applications of creative techniques, including motion graphic design for commercials, logos, informative videos, UI design, and basic character rigging.
3. Learn to use industry-standard motion graphic softwares.

#### **FDMA 365. Character Design and Development**

##### **3 Credits (3)**

Digital character design for the entertainment industry. Provides insight into the process of creating iconic characters. Traditional and contemporary character designers are explored. Industry workflow is introduced and necessary skills are developed to design detailed 3D characters from concept through production. Restricted to ANVE, DFM majors. May be repeated up to 3 credits.

**Prerequisite:** FDMA 1510, FDMA 2530 and FDMA 2535, or consent of instructor.

#### **Learning Outcomes**

1. Understand the role of a character in cinema and gaming.
2. Become familiar with leading character designers and their approach.
3. Utilize current industry standard methods.
4. Understand and apply fundamental character design techniques.
5. Demonstrate a strong ability to design and create characters from concept through production.

#### **FDMA 395. Directing I**

##### **3 Credits (3)**

Study and application through short scene work of the basic tools of a director and relationships with actors, designers, playwright, and stage managers. Interpreting as well as organizing. May be repeated up to 3 credits. Restricted to: DFM,ANVE majors.

**Prerequisite(s):** FDMA 2510, AND FDMA 2520, AND FDMA 1220.

#### **FDMA 396. Directing II**

##### **3 Credits (3)**

Addresses pre-production concerns including script breakdown, casting ground plans and coverage. The criteria employed when selecting the creative team including a director of photography, art director, light, sound and wardrobe designers. Introduction to budgeting, scheduling, and script breakdowns. Prerequisite: FDMA 395

#### **FDMA 397. Practicum**

##### **1-3 Credits (1-3)**

Practical application of the student's field of study in a project environment. May be repeated up to 9 credits. Consent of Instructor required.

**FDMA 398. Special Topics**

**3 Credits (3)**

This course addresses specific subjects and issues as identified by the department. Topics and credits to be announced in the Schedule of classes. May be repeated up to 12 credits.

**FDMA 400. Directed Studies**

**1-6 Credits (1-6)**

Directed study course in CMI under the supervision of a CMI faculty member. May be repeated up to 9 credits.

**FDMA 401. Motion Capture Techniques**

**3 Credits (3)**

Students will implement industry standard motion capture techniques and essential skills to capture and integrate performance for movie making, 3D animation and game production. Students will learn how to use the motion capture system, equipment and workflow, and polish performances using industry standard software. Concepts covered will consist of exploring motion capture setup, shooting, data tracking, and animation correction and enhancement. Restricted to ANVE, DFM majors. May be repeated up to 3 credits.

**Prerequisite:** FDMA 1510, FDMA 2720 and FDMA 2725 (or consent of instructor).

**Learning Outcomes**

1. Understand and demonstrate basic approaches to integrating live actors with computer generated imagery.
2. Understand the role of motion capture in cinema, advertising and related fields.
3. Build familiarity with leading motion capture companies and their approaches.
4. Become knowledgeable of the history of motion capture.
5. Become knowledgeable of current advances in motion capture.
6. Learn to utilize industry standard motion capture software.
7. Demonstrate a strong ability to produce believable imagery from concept through final production.

**FDMA 410. Cinematography III**

**3 Credits (3)**

This class is geared towards those who want to learn more about cinematography, color grading, and digital technology as it pertains to cinematography. Shooting high-end codecs (ProRes/DNxHD) or RAW are becoming more and more popular in filmmaking as camera manufactures and computer processing get better. This class will be a mix of production and post-production as learning how to shoot these higher end codecs do not end with the camera. Focus will be on techniques of shooting raw, understanding how to operate a camera capable of high end image acquisition, properly building up the camera rig and accessories, managing data and the post-production workflow. Consent of Instructor required. Restricted to: DFM, ANVE majors.

**Prerequisite(s):** FDMA 310.

**FDMA 433. Sets and Environments**

**3 Credits (3)**

Digital environment design and creation for movies and games from concept to production; including illustration, modeling, matte painting, texturing, lighting, rendering, integration, and camera projection. Restricted to ANVE, DFM majors. May be repeated up to 3 credits.

**Prerequisite:** FDMA 1510, FDMA 2530, and FDMA 2535 or consent of instructor.

**Learning Outcomes**

1. Understand the role of digital production design in cinema.
2. Become familiar with the work of leading digital artists involved in production design for the entertainment and gaming industries.
3. Utilize the software implemented in the entertainment industry.
4. Understand and apply fundamental digital set design techniques.
5. Demonstrate a strong ability to design and create digital set and environments from concept through production.

**FDMA 450. Advanced 2D Animation**

**3 Credits (3)**

This course will cover the more advanced aspects of 2D Animation. Students will demonstrate their mastery of the principles of animation through a variety of exercises and projects focusing on: automated and manual lip sync, full motion character animation, acting, smears, and quadruped animation. Restricted to ANVE, DFM majors. May be repeated up to 3 credits.

**Prerequisite:** FDMA 350.

**Learning Outcomes**

1. Students will gain experience mastering Disney's Principles of animation.
2. Students will complete exercises to animate both humans and animals.
3. Students will gain proficiency in lip syncing and acting using industry standard software.

**FDMA 480. Screenwriting II**

**3 Credits (3)**

Students will write 2 short scripts, 10-15 pages each throughout the semester. Focus will be on learning how to take notes and rewrite. Script analysis will be in a workshop format. Scripts will be read and discussed, scenes performed and reactions analyzed to consider effect of dialogue, character development, etc. Restricted to ENGL, DFM, ANVE majors. Crosslisted with: ENGL 480

**Prerequisite(s):** ENGL 309 or FDMA 309 or THEA 306 or consent of instructor.

**FDMA 490. Advanced Screenwriting**

**3 Credits (3)**

Students will prepare a 30-60 page screenplay. Script analysis will be in an advanced workshop format. Scripts will be read and discussed, scenes performed and reactions analyzed to consider effect of dialogue, character development, etc. This course is aimed at preparing writers for the professional market. Consent of instructor required. May be repeated up to 6 credits.

**FDMA 491. 3D Production Studio I**

**6 Credits (6)**

The course is the first semester of a year-long effort to complete a culminating project that is a story-driven short film, which can be either full CGI, or live action with visual effects. In Production Studio I the emphasis will be on the pre-production phase, including analysis and critique, pipeline organization and project management. Pre-production consists of: Pitch, Script, Visual and sound references, Storyboards, 3D Previsualization, Scheduling/Project Management. Restricted to ANVE majors.

**Prerequisite:** FDMA 308 or FDMA 309, FDMA 341.

**Prerequisite/Corequisite:** FDMA 332, FDMA 360, FDMA 365, FDMA 433.

**Learning Outcomes**

1. Demonstrate an ability to create a transformational story.
2. Exhibit proficiency in visual storytelling, structure, and character development.

3. Develop a story appropriate to the chosen production approach.
4. Create storyboards/animations to direct the cinematic aspects of the story.
5. Design the production visually in terms of characters and environment.
6. Learn to implement critiques of work to improve production quality.

#### **FDMA 492. 2D Production Studio I**

##### **6 Credits (6)**

Students will work through the pre-production process on short animated films. They will write a script, create a storyboard, and record voice over/ dialogue to create an animatic. Additional exercises will then be assigned to augment the skill set of the student according to the needs of each student. Restricted to ANVE majors.

**Prerequisite:** FDMA 1715 and FDMA 450.

##### **Learning Outcomes**

1. Students will synthesize animation techniques to produce a completed animatic.
2. Students will show proficiency in storytelling towards the development of a short script for production.
3. Students will demonstrate proficiency in industry standard animation softwares and production practices.

#### **FDMA 493. 3D Production Studio II**

##### **6 Credits (6)**

The course is the final semester of a year-long concentration on a culminating project. Emphasis will be on the production, post-production, and distribution of the work created during 3D Production Studio I. Students will produce a professional quality and industry-standard visual story that will help them gain entry into professional employment. The overall objective is for students to execute their artistic vision with exceptional creative and technical proficiency - resulting in a story-driven and captivating cinematic experience. Restricted to ANVE majors.

**Prerequisite:** FDMA 491.

##### **Learning Outcomes**

1. Students will complete the process of transforming their story from script to screen.
2. Students will demonstrate mastery of craft as a digital artist.
3. Students will learn to direct the cinematic aspects of the story.
4. Students will show proficiency in the production workflow, and complete a deliverable short film by the end of the production schedule.

#### **FDMA 494. 2D Production Studio II**

##### **6 Credits (6)**

Students will produce the short animated films they developed in 2D Production Studio I. They will animate, composite, and edit their shorts into a final piece for presentation in a showcase. Restricted to ANVE majors.

**Prerequisite:** FDMA 492.

##### **Learning Outcomes**

1. To complete a final project (either short film or demo reel) that demonstrates synthesis of animation techniques taught in earlier classes.
2. To translate animatics from 2D Production Studio I into keyframes and then in-between their keyframes to get clean, smooth animations.

#### **FDMA 495. Internship**

##### **1-12 Credits (1-12)**

Placement in a production facility and supervised experience required. With CMI advisor approval only. May be repeated up to 18 credits. Consent of Instructor required. Restricted to: DFM,ANVE majors.

#### **FDMA 497. Portfolio Design and Development 3 Credits (3)**

Advanced graphic design projects with an emphasis on conceptual development, portfolio preparation, and professional practices. Refine general marketing strategies, personal portfolio, and resumes. Define, target, and penetrate personal target markets. Students develop individual promotional/demo packages. Restricted to: DFM,ANVE majors.