

FDMA-FILM & DIGITAL MEDIA ARTS

FDMA 1110. Film History 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, and key international movements that shape it.

Learning Outcomes

1. Develop appreciation for the history of cinema.
2. Develop knowledge of the key eras in the history of US cinema.
3. Learn the characteristics of major movements in international cinema.
4. Explain technological innovations that were necessary for, and integral to, the advancement of cinema.
5. Recognize the various elements that go into telling a story in cinema.

FDMA 1120. Desktop Publishing 3 Credits (2+2P)

This course is designed to teach introductory skills for designing and creating publications and presentations with layout software. The course will focus on graphics and typographic design, fonts, and other skills for print and web publishing.

Learning Outcomes

1. Demonstrate knowledge of fundamental features and navigation of desktop publishing software.
2. Combine text and images for effective communication.
3. Develop a balanced composition through use of color, contrast, and alignment.
4. Place images within a composition and wrap around text.
5. Produce documents with professional layout and typography skills.
6. Create attractive and effective designs.
7. Combine knowledge of typography, images, and design principles to produce professional print and web media.
8. Create or add to a professional design portfolio for future use.

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 1260. Introduction to Digital Media 1-3 Credits (1-3)

Explores concepts of how text, graphics, sound, images and video come together in a digital media program and researching new trends and current issues related to media applications and design. Students will be involved in teamwork, communication and workplace interaction simulation . May be repeated up to 12 credits. Restricted to Community Colleges campuses only.

Learning Outcomes

1. Describe and identify the principal components and terminology of digital media.
2. Analyze and examine the use of digital media as a communication tool
3. Plan and implement a digital media project
4. Critique professional digital media products.
5. Create projects using a variety of digital media tools
6. Demonstrate a working knowledge of copyright and usage rights
7. Present completed projects in a professional manner for critique.

FDMA 1360. Web Design I 3 Credits (2+2P)

This course provides an introduction to web development techniques, theory, and design. Students will learn HTML, CSS application, and strategies for effective site navigation and design, along with industry standard web editing software to develop various websites. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): ARTS 1520 OR FDMA 1515.

Learning Outcomes

1. Acquire and utilize web design terminology.
2. Create basic web pages using HTML.
3. Demonstrate how to use industry-standard, web editing software.
4. Design professional pages that are easy to navigate and quick to load.
5. Develop a basic comprehension of CSS
6. Prepare and export a variety of graphics to be used online.
7. Compare and contrast designing for web media vs. print media.
8. Analyze the importance of web presence in today's business/social climate

FDMA 1410. Audio Production I**3 Credits (2+2P)**

Students will learn about and apply essential tools and techniques in analog and digital audio production. Topics include acoustic science, microphones, recording and mixing techniques, analog and digital audio hardware and software, including, multi-track, computer-based recording and editing systems. Restricted to: Community Colleges only.

Prerequisite(s): FDMA 1210 and FDMA 2410.

Learning Outcomes

1. Apply tools and techniques in analog and digital audio production
2. Illustrate the fundamentals of acoustic science.
3. Model professional behavior used in audio recording.

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.
7. Present original animations to instructor and classmates for critique.
8. Create a CGI demo reel of work completed during the course.

FDMA 1515. Introduction to Digital Image Editing - Photoshop**3 Credits (2+2P)**

In this course, students will learn how to use the tools in Adobe Photoshop to create new images and edit existing images. Tools used will include selections, layers, and adjustments, among other pixel editing tools. Basic composition and output will be emphasized in all projects. May be repeated for a maximum of 6 credits.

Learning Outcomes

1. Make and refine selections
2. Adjust color and tone in an image
3. Eliminate unwanted objects in an image
4. Apply layers to organize and create effects
5. Create brushes, styles and vector shapes
6. Prepare image for print and screen output
7. Apply masking and layers to non-destructively edit an image
8. Effectively utilize blending modes and layer styles
9. 1 Apply adjustment layers
10. 1 Apply design principles including typography

FDMA 1531. Evolution of Electronic Games**3 Credits (2+2P)**

Focus on the evolution of video games and how they have shaped mainstream entertainment. May be repeated up to 6 credits.

FDMA 1535. Introduction to Illustrator**3 Credits (2+2P)**

Students receive instruction on vector graphics creation using vector illustration software. The students will create professional-quality artwork for print publishing and multimedia graphics. Instruction includes creating and manipulating basic shapes, drawing with the pen tool, using various brushes, working with type and preparing graphics for web, print, and digital publication. May be repeated for a maximum of 6 credits.

Learning Outcomes

1. Apply a variety of shape blending options
2. Create and apply new gradients
3. Apply Gradient Meshes and Envelopes
4. Create symbols, brushes and vector shapes
5. Apply Pathfinder and other effects
6. Effectively utilize the pen tool to draw and edit shapes
7. Effectively utilize Vector tools
8. Prepare image for print and screen output
9. Apply clipping masks
10. Prepare image for use in another program
11. Apply design principles including typography

FDMA 1536. Advanced Computer Illustration**3 Credits (2+2P)**

Advanced techniques in 2D vector drawing and fundamentals of 3D illustration for use in print, web, and multimedia applications. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1535.

Learning Outcomes

1. Demonstrate proficiency in using advanced features of Illustrator.
2. Identify and create different illustrator/art styles using advanced techniques for shading, perspective, light, reflection.
3. Produce high quality digital imagery incorporating basic principles of composition.
4. Create a series of illustrations demonstrating a design competency in layout foundation and illustrative moods or client/project based solutions.
5. Create high quality portfolio pieces that demonstrate an advanced knowledge of design, composition and Illustrator techniques.
6. The students will produce finished printed portfolio pieces demonstrating a comprehensive knowledge of typographical, design, illustrative and layout skills

FDMA 1545. Introduction to Photography & Digital Imaging**3 Credits (2+2P)**

This course is a study of the principles and techniques of photography using digital equipment, and discusses how digital cameras, imaging editing, and technology have changed the world of photography. Students will learn about studies in resolution, lighting, software, editing, printing, and web applications. They will gain fundamental knowledge in the rapidly expanding technology of photography and imaging, and be able to incorporate the knowledge into all areas of digital graphics.

Learning Outcomes

1. Exhibit proper usage of the principles and techniques of photography using digital equipment.
2. Utilize features and techniques of a digital camera with proper use of lenses, settings, and flashes.
3. Create photo collections that represent proper use of technical skills.
4. Demonstrate proficiency in planning, lighting, capturing, and distributing photographic projects which show ability to create photographs artistically and to tell a story or express an idea.
5. Utilize appropriate software to create original projects.
6. Demonstrate knowledge in post-production of photos as to sizing, sampling, resolution, and exporting.
7. Produce original projects which respect intellectual property of others.
8. Create a digital portfolio 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 1630. Principles of Design**3 Credits (2+2P)**

This course will explore how we see and use visuals to communicate information. Students will develop critical thinking skills in applying concepts of basic design principles. Students will apply the concepts with hands-on and analysis assignments. These concepts will then be applied to design for advertising, print, digital media, and web design. The business of design will also be covered with emphasis on client relations and networking. Restricted to: Community Colleges only. Prerequisite(s): FDMA 1535

Learning Outcomes

1. Practice Creativity
2. Plan a Design project
3. Demonstrate the effective use of Emphasis Contrast
4. Demonstrate the effective use of Balance and Alignment
5. Demonstrate the effective use of Harmony and Repetition
6. Demonstrate the effective use of Flow, Movement, and Rhythm
7. Demonstrate the effective use of Simplicity and Economy
8. Effectively apply basic color theory
9. Demonstrate the effective use of Typography principles
10. 1Apply design principles to Screen Print Projects
11. 1Develop client relations

FDMA 1710. 2D Animation**3 Credits (2+2P)**

Concepts and techniques in storyboarding and creating interactive 2D animations for web, multimedia and video.

Prerequisite(s): FDMA 1535.

Learning Outcomes

1. Be able to correctly storyboard an animation scene
2. Define and demonstrate basic animation terminology and principles.
3. Produce a complete hand drawn animation using industry standard software and processes.

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. 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. Students who pass this class will have a basic to intermediate knowledge of Adobe After Effects

FDMA 1720. 3-D Character Design**3 Credits (2+4P)**

Focus on designing a character and then taking that design and building it in 3D using intermediate modeling techniques. May be repeated for a maximum of 6 credits.

Prerequisite(s): FDMA 1510 or FDMA 2530.

Learning Outcomes

1. Translate concept art into a low and high resolution 3D model using proper modeling techniques
2. Use Polygon modeling techniques to create a 3D character
3. Layout UVs and utilize Adobe Photoshop to texture a model.

FDMA 1996. Selected Topics**1-4 Credits (1-4)**

Specific titles to be announced in the Schedule of Classes. May be repeated for a maximum of 18 credits. Restricted to Community Colleges campuses only.

Learning Outcomes

1. Varies

FDMA 2120. Film Crew I/ Introduction to Film and Media Workflow**9 Credits (9)**

An introduction to the film industry. This class teaches film production processes, film crew hierarchy, film production set-safety and etiquette and provides hands-on training in industry standard film production equipment. Students complete the semester by participating as a below-the-line crew member on a short film. Restricted to: Community Colleges only.

Learning Outcomes

1. Explain film production processes; Interpret call sheets and deal memos, model basic on-set protocols and professional behavior
2. Assist producers and directors in completing a professional film project
3. Work effectively in production crew positions in a group environment.
4. Recognize and articulate specific film production structure, from original concept to final release

FDMA 2125. Film Crew II**9 Credits (9)**

The second course designed to train students to become working members of film crews. It will be taught by working film professionals. Content will be lecture and hands-on. Students complete the semester by working as part of an actual film crew as below-the-line and above-the-line crew members. Restricted to: Community Colleges only.

Prerequisite(s): FDMA 2120.

Learning Outcomes

1. Understand film production processes used to produce a film
2. Manage craft area job functions
3. Model on-set protocols and professional behaviors
4. Assist producers and directors in completing a professional film project

FDMA 2150. Desktop Publishing II**3 Credits (2+2P)**

This class will enhance and build upon student layout/design skills developed in the Introduction to Desktop Publishing course, incorporating intermediate to advanced concepts in typography and layout design. Upon completion of this course, students will be able to use page layout software to prepare a variety of documents for presentation and critique, including newsletters, instructional flyers, and other complex design/typographic pieces. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1120.

Learning Outcomes

1. Build upon knowledge of design and design terminology.
2. Exhibit intermediate to advanced design principles using type, layout, and color.
3. Demonstrate skill in intermediate to advanced concepts and features of page layout software.
4. Exhibit knowledge of styles, tables, images and clipping paths and interactive documents as well as printing preparations and procedures.
5. Create layouts for print, web, and other media that demonstrate an intermediate to advanced knowledge in typography and layout design.
6. Format and produce newsletters and instructional flyers, as well as larger, complex projects such as packaging mechanicals, multiple master page documents, and books.
7. Assess works of graphic design for quality and effectiveness.
8. Utilize produced material to create or add to a design portfolio for future use.

FDMA 2210. Digital Video Production II**3 Credits (2+2P)**

Advanced techniques of the tools and application of professional film making. May be repeated for a maximum of 6 credits.

Prerequisite: FDMA 1210.

Learning Outcomes

1. Demonstrate the ability to produce and manage a video project: Produce a script, storyboard, and production schedule for a video project designed for a specific audience.
2. Demonstrate proficiency in producing quality digital video footage and audio tracks: Shoot to the script and storyboard using a variety of camera and lighting techniques; Produce a finished complex sound track including narration, music, and sound effect.
3. Demonstrate ability to produce and edit a professional quality video project: Integrate all production aspects of the project including video, audio, graphics, titles, transitions, and effects. Guide the project through the final production stages.
4. Develop competency in digital video distribution using various formats and techniques: Distribute project in various formats which could include DVD and web posting.

FDMA 2241. Advanced Camera Techniques**3 Credits (2+2P)**

Professional camera techniques and training for electronic news gathering and studio filmmaking. Utilizes high-end handheld shooting techniques, cranes, dollies, and steadicam training. May be repeated for a maximum of 6 credits.

Prerequisite(s): FDMA 1210.

Learning Outcomes

1. Students knowledge of high-end video camera operation and features.
2. Students must know all the working features of the video production equipment being used during the course in order to achieve the desired footage as required by the instructor.
3. Demonstrate proficiency in producing quality digital video footage.
4. Individuals must acquire the knowledge of different shooting styles in different productions situations and use those acquired skills to produce the appropriate video footage.
5. Using the proper lighting in different on location shooting styles.
6. Skill of each individual utilizing the usage of high-end camera equipment such as dollies, cranes and Steadicam.
7. Each individual must work as a team player to create professional style video footage.

FDMA 2285. Digital Video Production and Editing II**3 Credits (2+2P)**

Advanced features of digital video, audio/music, and titling production software. Included are color correction, vector scopes, motion effects, and advanced editing techniques used by filmmakers. Restricted to Community Colleges campuses only. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1220.

Learning Outcomes

1. intermediate to advanced video editing create short films and training videos, create TV quality commercials, direct a news broadcast, and work as a mentor to students on digital media equipment

FDMA 2287. Digital Design Studio**1-3 Credits**

A design studio environment in which students obtain real-world experience while providing service to college and non-profit associations with faculty supervision using a variety of media. Can be used with permission to fulfill cooperative requirement. May be repeated for a maximum of 6 credits.

Prerequisite(s): FDMA 1630 or ARTS 1712.

Learning Outcomes

1. Demonstrate competency in the use of InDesign software.
2. Create appropriate visual solutions based on target marketing information.
3. Demonstrate competency in the design and production of advertising and promotional materials.
4. Present ideas and concepts effectively and competently.
5. Visually demonstrate design solutions to be used in a portfolio.

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 2312. History of Media Design**3 Credits (3)**

An introduction to the principles of design history and theory within a chronological framework of historical and emerging media.

Learning Outcomes

1. Introduction to visual communication: Defines design media; Discuss universal design principles and strengthen student basic design skills.
2. Historical technological development and design: Prehistoric communication; Beginnings of alphabet and written language; Movable type and the printing press; Industrial revolution; Digital Age; Designers and Trends; Personalities and their influence and contributions
3. Identify design styles and discuss the relevance of how design influences: Idea generation; Trend sources; Influences or appropriation; Propaganda and advertising.

FDMA 2325. Advanced Photoshop**3 Credits (2+2P)**

This course expands on the Photoshop skill set to develop proficiency with selections, masking, channels, filters, color correction, painting tools, vector integration, video, special effects, and compositing techniques. The focus is on the core image-editing tools of Photoshop that can be universally applied to photography, print, film or the web. The material is covered in production-oriented projects and students develop work suitable for portfolios. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1515.

Learning Outcomes

1. Create effects using advanced blending techniques
2. Effectively utilize advanced masking techniques
3. Refine Selections with advanced techniques
4. Assess Adjust color in an image
5. Utilize advanced photo enhancement techniques
6. Alter images using Photoshop painting techniques
7. Create brush presets
8. Create vector elements with paths
9. 1Add manipulate type on a path
10. 1Create advanced special effects
11. 1Apply vanishing point warping
12. 1Create a video clip
13. 1Apply color adjustments to video

FDMA 2326. Digital Photography and Imaging II**3 Credits (2+2P)**

Provide understanding and skills needed for advanced digital capture, editing, optimizing and manipulating photographic images for print, web and multimedia applications. The course will prepare students to make more advanced technical and more refined aesthetic decisions relative to specific photographic applications. Restricted to: Alamogordo campus, Carlsbad campus, Dona Ana campus.

Prerequisite(s): FDMA 1545.

Learning Outcomes

1. Apply proper exposure techniques.
2. Practice effective composition techniques.
3. Demonstrate knowledge of working with Camera RAW files.
4. Demonstrate proper image adjustment and correction techniques.
5. Successfully apply the basics of HDR digital photography.
6. Apply techniques for modifying light.

FDMA 2360. Web Design II**3 Credits (2+2P)**

In this course, students will refine their skills in coding and web graphic design as well as be introduced to methods in constructing sites that adhere to the standards of responsive web design. Students will expand their knowledge of HTML and CSS using a code editor, and they will both analyze existing websites and also construct an interactive website. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1360.

Learning Outcomes

1. Plan and produce web design mockups.
2. Demonstrate a proficiency in HTML/CSS coding.
3. Utilize basic web scripts.
4. Integrate animation into web design.
5. Create fully functional websites using one or more web editors.
6. Make a website "live."
7. Evaluate web designs for aesthetics and functionality.
8. Demonstrate the utilization of responsive design.

FDMA 2365. Web Design for Small Business**3 Credits (2+2P)**

Technology and techniques for designing and building a web presence for small business. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): FDMA 1360.

Learning Outcomes

1. Learning advanced tools and techniques for creating and maintaining complex Business web sites. We will be using CSS, PHP, HTML, Photoshop, and Wordpress.
2. design a complete and fully functional online web business.
3. understand and develop a plan to better manage a web store/business.
4. review basic design guidelines in preparing a variety of web applications for business.
5. develop technical skills in using various web based solutions.
6. reinforce your knowledge of web design software.
7. introduce alternate sources of data, communication and financial solutions.

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 2410. Audio Production II**3 Credits (2+2P)**

Students will use skills developed in the Audio Production I course to produce audio projects utilizing a variety of analog and digital audio hardware and software, including continued use of multi-track, computer-based recording and editing systems, as well as exploring more advanced audio techniques and concepts. Restricted to: Community Colleges only.

Learning Outcomes

1. Apply analog and digital audio hardware and software in audio recording.
2. Apply common professional set-up practices of audio production facilities.
3. Produce audio projects, sync sound recordings, and audio dialogue replacement (ADR) demonstrating technical expertise.
4. Perform an audio mix and master for a final professional product.
5. Analyze and compare existing audio productions for quality.

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
2. filmmaking
3. Learn the process of designing a soundtrack for film and recording live audio dialogue for use in post-production editing.
4. Learn methods of capturing sound including live audio recording, dialogue recording, foley, orchestration and audio dialogue replacement
5. 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.
3. Utilize tools available in professional 3D modeling software.
4. Create simple animations and renders.
5. Present original animations to instructor and classmates for critique.
6. 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

1. 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 2570. Creative Media Studio
3 Credits (2+2P)

A studio environment where students specialize in creating film-festival quality and portfolio-ready projects under the supervision of faculty. May be repeated for a maximum of 6 credits.

Prerequisite(s): FDMA 1210 and FDMA 1220 or FDMA 2530.

Learning Outcomes

1. Students will work together to create portfolio-quality work in a studio environment.
2. Through classroom discussion and reporting the students will collaborate to produce a professional quality "vertical slice" game concept within a defined timeline and financial budget

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

1. 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.
2. Use major software tools with ease
3. Manage time lines through key frames
4. Build storyboards
5. Demonstrate knowledge of 2-D and animation terminology
6. Produce actions, set environments and constraints for 2-D animation
7. Render full animation.

FDMA 2715. Special Effects
3 Credits (2+4P)

Creating advanced virtual special effects for both rigid and soft bodies. Using MEL, dynamic principles, mixing nodes, and advanced particle systems. How to drive particles over surfaces, add texture to flow, create surface tensions, and use collision events to drive texture. Study of integrating computer-generated images with real-life video and audio.

Prerequisite(s): FDMA 2530 or FDMA 2765.

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(s): FDMA 1510, FDMA 2710 or consent of instructor.

Learning Outcomes

1. 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, forward and inverse kinematics, controls, body and facial rigging. Restricted to: DFM, ANVE majors.

Prerequisite(s): FDMA 1510.

Learning Outcomes

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

FDMA 2730. Advanced Character Animation**3 Credits (2+2P)**

Focus on complex rigging techniques as well as utilizing advanced animation functions to blend multiple animations into complex animations. May be repeated for a maximum of 6 credits. Restricted to: Community Colleges only.

Prerequisite(s): FDMA 2530.

Learning Outcomes

1. Create skeletal riggings for use with a 3D model
2. Attach riggings to a 3D model using Smooth and rigid binding and refine the bindings so that they are properly weighted
3. Animate a 3D model using skeletal and vertex animation techniques

FDMA 2735. Advanced 3D Animation Workshop A**3 Credits (2+4P)**

Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. May be repeated for a maximum of 9 credits. Consent of instructor required.

Corequisite(s): FDMA 2740.

Learning Outcomes

1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

FDMA 2740. Advanced 3D Animation Workshop B**3 Credits (2+4P)**

Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. May be repeated for a maximum of 9 credits. Consent of instructor is required.

Corequisite(s): FDMA 2735.

Learning Outcomes

1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

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

1. 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 2750. Digital Sculpting**3 Credits (3)**

Introduce students to the 3D Sculpting programs which are the industry standard sculpting programs. Students will learn how to create complex high polygon sculpts and normal maps and transfer the models into 3D studio Max and Autodesk Maya. May be repeated up to 6 credits.

Restricted to: Community Colleges only.

Prerequisite(s): FDMA 2530.

Learning Outcomes

1. Demonstrate communication skills through written critiques and explanations
2. Students will demonstrate visual communication skills through critiques, written explanations, and storyboarding
3. Demonstrate a working knowledge of Zbrush's interface
4. Demonstrate a working knowledge of Zpheres and how they are best used to create sculpts
5. Demonstrate a working knowledge of painting a mesh using Spotlight
6. Demonstrate a working knowledge of retopologizing and exporting the mesh
7. Demonstrate a working knowledge of integrating the full Zbrush pipeline into Unity and Unreal

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

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

FDMA 2770. Critical Game Studies**3 Credits (2+2P)**

Focus on creating a complete design document utilizing techniques and standards used in the industry today. May be repeated for up to 6 credits. Restricted to: Community Colleges only.

FDMA 2775. Game Tools and Techniques**3 Credits (2+2P)**

Focus on the different engines and gaming technologies that power the games of today. May be repeated for a maximum of 6 credits.

Prerequisite(s): FDMA 2770.

Learning Outcomes

1. Students will develop rapid prototyping techniques.
2. Through classroom exercises the students will gain competency in industry-standard game creation engines and tools, and learn to work together in groups to create rapid prototypes.
3. This includes creating art, sound and music, and creating basic scripts within an engine.

FDMA 2785. Level Design Concepts**3 Credits (2+2P)**

Focus on the design and creation of video game levels. Dealing with the challenges and pitfalls of different video game genres. May be repeated for a maximum of 6 credits. Prerequisite(s): FDMA 2770

Learning Outcomes

1. Students will develop level design skills.
2. Through classroom exercises the students will gain a comfortable competency with designing levels both on paper and digitally.
3. This includes creating first person shooter levels, third person levels, multiplayer level design, and more.

FDMA 2993. Workshops (Advanced Photography)**1 Credit (1)**

This is a series of 1-credit workshops offering specialized and intense advanced skill training and upgrading applications of photography for commercial purposes and training in photographic skills and styles presented by a variety of professional lecturers. May be repeated up to 7 credits. Restricted to Community Colleges only.

Prerequisite(s): FDMA 1545.

Learning Outcomes

1. Varies

FDMA 2994. Portfolio Design & Development**1-3 Credits**

Personalized design and creation of the student's professional portfolio including hard-copy, demo reel, and online. May be repeated up to 6 credits. Consent of Instructor required. Restricted to Community Colleges campuses only.

Learning Outcomes

1. Varies

FDMA 2995. Film Crew Cooperative Experience**3-6 Credits (3-6)**

Industry production experience in specific craft areas for film crew technicians who have successfully completed two semesters of FTTP. Restricted to: Dona Ana campus, Carlsbad campus.

Prerequisite(s): FDMA 2125.

Learning Outcomes

1. Varies

FDMA 2996. Special Topics**1-4 Credits**

Specific topics to be announced in the Schedule of Classes. May be repeated for a maximum of 18 credits.

Learning Outcomes

1. Varies

FDMA 2997. Independent Study**1-3 Credits**

Individual studies directed by consenting faculty with prior approval of department head. May be repeated up to 6 credits. Restricted to Community Colleges campuses only.

Prerequisite(s): Minimum GPA of 3.0 and sophomore standing.

Learning Outcomes

1. Varies

FDMA 2998. Internship**1-3 Credits**

Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. May be repeated up to 9 credits. Consent of Instructor required. Graded: S/U Grading (S/U, Audit). Restricted to Community Colleges campuses only. Consent of instructor required.

Learning Outcomes

1. Varies

FDMA 300. History of Cinema II**3 Credits (3)**

An advanced, in-depth analysis of cinema's history. Course may focus on one specific area of cinema history depending on instructor.

Prerequisite(s)/Corequisite(s): FDMA 2382, FDMA 2310. Restricted to: DFM, ANVE, G-CMI majors. Restricted to Las Cruces campus only.

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 315. Adventures in Genre**3 Credits (3)**

Students learn storytelling strategies for the screen by studying various structural genres and components of screenplays and films. Utilizing these strategies, students develop a number of their own original screenplay ideas. Additionally, pitch workshops are held and students learn to present their ideas in various, practical situations.

Prerequisite(s): FDMA 2382 and FDMA 309.

FDMA 316. Border Cinema Around the World**3 Credits (3)**

What is the relationship between borders, identity, and vulnerability - and how is this relationship explored in cinema? How are borderlands also testing grounds - the sites of serious ethical dilemmas? By examining powerful feature films from such regions as the Middle East, the Balkans, and the US/Mexico border, we will explore ways in which personal, familial, communal, and national identities are defined through the complex process of bordering. We will investigate the role of cinema in reflecting and/or facilitating this process.

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 synching 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. Understand basic body mechanics and how to represent them with a 3D character. Understand the twelve principles of animation on a deeper level and be able to apply them in individual work. 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 in the fundamental principles, skills, and artistry needed to successfully integrate live action footage and computer generated imagery into technically correct, narratively engaging and cinematic shots. This course is designed as a dry run for the culminating project in 3D production Studio 1 & 2. Topics include: visual storytelling, cinematography for visual effects, green screen setup/ lighting/keying, intermediate compositing techniques, editing, color correction and color grading, professional pipeline protocols. 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. Students will learn fundamental skills needed to integrate live action footage and animation. Students will explore advanced storytelling techniques through visual effects work. Students will learn cinematography specific to working in visual effects.

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. Understand and apply some basic acting skills into animation reference. Understand and apply some basic processes of creating reference for a narrative. 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. Students will learn and show proficiency in related industry-standard software. 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. Explore various applications of creative techniques, including motion graphic design for commercials, logos, informative videos, UI design, and basic character rigging. 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. Become familiar with leading character designers and their approach. Utilize current industry standard methods. Understand and apply fundamental character design techniques. Demonstrate a strong ability to design and create characters from concept through production.

FDMA 377. Game Design Workshop**3 Credits (3)**

In this course we will learn to design, develop, and playtest games. This approach will be exercise driven and involve nontechnical approaches as well as digital production techniques. This playcentric approach will involve player participation from conception through production. We will explore the iterative processes of prototyping, playtesting, and revising based based on feedback. Consent of Instructor required. Restricted to: ANVE, DFM majors.

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. Understand the role of motion capture in cinema, advertising and related fields. Build familiarity with leading motion capture companies and their approaches. Become knowledgeable of the history of motion capture. Become knowledgeable of current advances in motion capture. Learn to utilize industry standard motion capture software. 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 412. Advanced Equipment Training**3 Credits (3)**

This class is designed for students who want to dive deep into building and operating much of our advanced camera and G&E equipment. Though these on-set tasks are performed by below-the-line crew members, having the knowledge of and ability to use this equipment will serve you greatly as a DP. We will go over a wide variety of devices in this class, ranging from car mounts and our GlideCam to our large jib, 3-axis gimbal, 500-amp generator, and 6K HMI lights. We will also do some advanced lighting scenarios. The goal of this class is to get you "certified" on all the above items, resulting in your being able to build this equipment for other CMI sets, such as the Mixed Class Productions, Senior Projects, etc. Restricted to: DFM, ANVE majors.

Prerequisite(s): FDMA 310.

FDMA 425. Film Festival Production**3 Credits (3)**

This course is designed to enhance student knowledge about film festivals and, specifically, the Las Cruces International Film Festival. From soup to nuts, students will build upon what they learned in CMI 325 Film Festival Preparation regarding how to manage and execute a major film festival, including film solicitation and submissions, festival event marketing, celebrity appearances, industry workshops, filmmaker coordination and brand management. Students will gain an appreciation of the value of a film festival to the community and for visiting filmmakers. Students will apply this knowledge in their written assignments, film evaluations, and departmental responsibilities. May be repeated up to 6 credits. Restricted to: DFM, ANVE majors.

Prerequisite(s): FDMA 325.

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. Become familiar with the work of leading digital artists involved in production design for the entertainment and gaming industries. Utilize the software implemented in the entertainment industry. Understand and apply fundamental digital set design techniques. 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. Students will complete exercises to animate both humans and animals. Students will gain proficiency in lip syncing and acting using industry standard software.

FDMA 451. Dynamics and Effects**3 Credits (3)**

This course educates students in photoreal 3D simulation techniques focusing on particle simulations, rigid body dynamics and fluid simulations. Students will complete several professional grade VFX shots involving explosions, fire, destruction, dust and debris.

Prerequisite: FDMA 1510.

Learning Outcomes

1. Students will exhibit high level competency in critical thinking and independent problem solving. Students will understand and apply procedural methodologies; and complete several professional quality, portfolio-ready simulation shots using industry-standard techniques. Students will produce work at a pace to meet with the production schedule. Students will implement critiques on their work-in-progress to iteratively improve production quality.

FDMA 477. Digital Game Design**3 Credits (3)**

This course covers the theory and practice of digital game production using industry standard media and game engine applications. Students apply animation and game development approaches toward game engine constraints and requirements to create gameplay experiences. Design and production methods are implemented to create game levels and populate them with original assets. Team based game prototyping will require multiple disciplines to devise unique digital game experiences. Consent of Instructor required. Restricted to: ANVE, DFM majors.

Prerequisite(s): FDMA 377.

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. Restricted to ENGL, DFM, ANVE majors. Crosslisted with: ENGL 491

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. Exhibit proficiency in visual storytelling, structure, and character development. Develop a story appropriate to the chosen production approach. Create storyboards/animations to direct the cinematic aspects of the story. Design the production visually in terms of characters and environment. 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. Students will show proficiency in storytelling towards the development of a short script for production. 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. Students will demonstrate mastery of craft as a digital artist. Students will learn to direct the cinematic aspects of the story. 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. 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.