

MART - Media Arts

Courses numbered 100 to 299 = *lower-division*; 300 to 499 = *upper-division*; 500 to 799 = *undergraduate/graduate*.

MART 100. Foundations for College and Career Success in Media Arts (1).

Provides essential strategies for success in college specifically tailored for film majors. Topics covered include time management, effective study techniques, resource utilization, goal setting and building a supportive network. Emphasis is placed on practical skills for managing the unique challenges faced by students in the film program. Students gain tools and strategies to enhance their academic performance and prepare for professional success in media industries.

MART 101. Introduction to Media Arts (3).

Introduction to media arts and the interconnectedness of audio, film, animation and gaming. Introduces fundamental concepts in analyzing and interpreting popular media delivery. Employs lectures, guest speakers, collaborative projects and experimental modes of learning. Covers resources available on the main campus and in the community. Written assignments encourage students to think about how various media and entertainment influence culture and its response to these influences. Attendance at outside events, lectures and festivals may be required.

MART 102. Introduction to Media Aesthetics and Analysis (3).

Provides the basic skills necessary to read film and videogames critically. Concentrates on formal analysis, emphasizing the aesthetic, historical and ideological elements that comprise the multiple languages of world cinema and electronic games. Introduces various genres of narrative cinema as well as different practices of cinema such as experimental, documentary, animation and hybrid forms, as well as using the lens of art and independent-based design to examine alternative approaches to aesthetics, gender, and race expressions in electronic games. Provides an introduction to cinema and videogames as artistic practices that span the globe in their contemporary as well as historical modes.

MART 103. Introduction to Digital Filmmaking (3).

Designed for beginners who are eager to explore the art and craft of filmmaking using modern digital tools. During the course, students are introduced to all foundational aspects of film including, cameras, lighting, audio and post.

MART 104. Introduction to Game Design (3).

Introduces the student to electronic game development and game design careers. During the course, students are introduced to foundational aspects of game development, including storytelling, art, player motivation, interfaces, logic and systems.

MART 105. 2D Digital Foundation Design (3).

Introduces students to the fundamentals of digital design concepts. Students learn about digital design software and hardware used in the animation, gaming and film industries. They interpret proper digital media workflows and practice navigation through various programs used in a professional setting. Over this course, students analyze color theory, composition, and the twelve principles of design through the lens of digital media industries.

MART 107. Introduction to the Recording Studio (2).

Introduces students to operation and workflows of a recording studio. Introductory exposure to signal flow, patch bays, outboard processing gear, DIs, DAWs, session setups, plug-ins, microphones, proper cable management, use of various microphone stands, gobos, peripherals such as controllers and displays, board operation, and other basic skills fundamental to proper studio operation. Repeatable for credit.

MART 108. Digital Audio Workstations (2).

In-depth study of popular digital audio workstations (DAWs) in audio production. Practical experience in Pro Tools, Logic, Ableton and other applicable DAWs. Builds the foundation for digital recording and post-production workflows.

MART 109. Aural Skills for Audio Engineers (2).

Critical ear training for today's audio engineer. Builds a sonic foundation for identifying noise, digital artifacts, types of distortion, compression parameters, saturation, time-based processing, frequencies, frequency ranges, eq moves, phasing, comb filtering, harmonics, types of waves, spectral composition, resonances, panning, acoustic nuisances, faulty electronics, proper impedance loading, level matching, other aural training critical to the audio engineer and the critical role it all plays in audio production.

MART 110. Introduction to Music Technology and Industry (2).

Introduction to concepts, techniques and terminologies related to computing through musical applications. Students become familiar with major notation software, recording and audio editing software, live sound support, home and concert recording techniques, and music related web pages and pod casts.

MART 111. Intro to Music Business (2).

Gain a broad overview of the music business and learn how the various segments of the industry operate on a day-to-day basis.

MART 112. Introduction to Maya (3).

Teaches the foundation of computer graphics using Autodesk Maya. Students are introduced to the Maya interface as well as 3D modeling, texturing, lighting, rendering and animation. This course prepares students to face both artistic and technical challenges when creating high quality 3D images. Students have to work on multiple assignments that establish a deep understanding of the software.

MART 113. Texture and Shading 1 (3).

Demonstrates how to create basic textures and shaders inside Maya and Photoshop. Using Arnold as the renderer of choice, students work on creating texture maps that represent realistic materials. Lectures teach students to navigate inside the Hypershade utilizing Arnold Standard Surface Material and others. The class also demonstrates how different lighting settings affect materials.

MART 130. Film History (3).

Explores the rich tapestry of cinematic history through the eyes of a filmmaker. The course is designed to provide aspiring directors, cinematographers, screenwriters and other filmmaking majors with a deep understanding of the evolution of cinema: its key movements, influential directors and groundbreaking films. By delving into the past, students gain the knowledge and inspiration necessary to shape the future of filmmaking.

MART 131. History of Video Games (3).

Explores the progression of video games from their inception to the present day, with a specific emphasis on video game culture and notable game designers. Students analyze the cultural, social and technological factors that shape video games and their impact on society.

MART 200. Introduction to Media Arts Software (3).

Introduces media arts students to the fundamental software tools used across all concentrations, including game design, audio production, animation, acting for digital arts and filmmaking. Students gain proficiency in navigating and applying key features of non-linear editing software (NLE), digital audio workstations (DAW), image editing and design tools like Photoshop and Illustrator, and game engines such as Unreal Engine. By providing hands-on experience with each platform, this course lays a strong technical foundation for future

coursework and professional practice, regardless of the student's area of concentration.

MART 220. Computer Modeling (3).

Students are introduced to 3D art via the current industry standard modeling software. This class covers intro to intermediate level 3D modeling skills. Students learn how to 3D model using a number of different techniques such as box modeling, modular modeling, alpha modeling and prop modeling. The intention is for students to understand how different modeling processes are used to create an environment and tell the story of their environment. This includes buildings, foliage and environmental props.

MART 221. Scene Study I (3).

Focuses on the importance of scene study. Students build essential skills in character development and scene analysis while practicing cold-reading and audition techniques. Emphasis is placed on making strong character choices, finding creative opportunities within subtext, utilizing context clues to build the story, and observing how this work manifests within a performance.

MART 222. Digital Animation I (3).

Examines the principles of animation in its application and importance to animation. Students are introduced to the basics of 3D computer software with an emphasis on the animation-centric tools. Develops the students' technical ability, artistic ability and knowledge necessary to create believable pieces of 3D animation. Prerequisite(s): MART 220 or instructor's consent.

MART 225. Writing for Film and Television (3).

Examines the role of a screenwriter in the filmmaking process. Affords students the ability to learn the structure of films, shorts and television. Also explores how to write for a visual medium, job outlooks, unions and other topics specifically related to writing for film.

MART 232. Game Design I (3).

Introduces software for game development and design. Students learn the tools and techniques that allow them to develop their game creation skills. Students also learn about pivotal, successful games that changed the gaming industry over the years. Prerequisite(s): MART 104 and MART 261 with a C or better.

MART 250. Recording I: Classical Recording Techniques (2).

Build the foundations of acoustic music production through traditional methods for recording acoustical ensembles. Emphasis on location music recording with in-studio listening and post-production sessions. Stereo microphone techniques is covered extensively but covers everything from mono to immersive.

MART 251. Recording II: Modern Recording Techniques (2).

A practical approach to recording contemporary styles of music. Emphasis on digital recording of acoustic and electric instruments. In-depth use of microphone techniques, outboard processing gear, patch-bays, consoles and monitoring systems.

MART 253. Post-Production I: Editing and Mixing (2).

Post-production techniques of recorded music in the mixing and editing stages. Makes use of DAW tools and outboard gear to achieve desired sonic results. Techniques from setting up sessions to mixdown.

MART 254. Post-Production II: Mastering (2).

Post-production techniques of recorded music in the mastering stage. Covers techniques and workflows that prepare tracks for delivery to different mediums.

MART 261. Game Technology and Coding I (3).

Studies coding computer languages that are essential in animation, visual effects and the gaming industry. Students learn the fundamentals

of coding and computer languages to understand their design elements as they apply to the media arts industries.

MART 265. Acting for Digital Arts (3).

Focuses on the diverse applications of acting for the digital arts. Students become familiar with the practices of scene study, character development, cold-reading, audition technique, and the unique technical aspects of acting for film, television, video games and animation. Emphasis is placed on establishing a well-rounded foundation and basic understanding of acting for the camera, voiceovers, dubbing and motion capture performance.

MART 270. Figure Drawing for Animators (3).

Orientation to visualization of the human body. Helps students learn the proper structure of the figure, which enables the drawer to convincingly visualize, manipulate or distort the figure. These processes are examined through the lens of developing images for animation, film, video game development, as well as visual concepting. Also allows students to understand how important structure is in character development. As with all drawing knowledge, this takes much practice and hard work on the artist's part.

MART 298. Mid Program Review (0).

A required checkpoint for all media arts students before completing 60 credit hours towards their degree, assessing their progress in key areas of their chosen discipline (film, audio production, animation, etc.). This review provides an opportunity for students to reflect on their work, receive feedback from faculty, and ensure they are on track to complete the program successfully. Students submit a portfolio of their work to be reviewed by faculty, followed by a feedback session focusing on their strengths, areas for improvement and recommended next steps. Prerequisite(s): completion or concurrent enrollment in 59 credit hours towards a media arts BAA.

MART 299. Media Arts Practicum I (1).

Expands and enhances the students' technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degrees. Practical training in the organization, presentation and technical aspects of production are the focus as students conceptualize, plan and implement a project related to the media arts.

MART 300. Lighting and Materials (3).

Students are introduced to advanced UV techniques in the current, industry standard software in order to create realistic physically based textures and tell the story of the asset. This includes learning all of the processes and techniques used for digital painting. This includes the processes for map development, layering, smart materials and masks, generators, fills, etc. Once the texturing is complete, students learn how to apply this work flow in the software pipeline. Prerequisite(s): MART 220.

MART 301. Directing the Performance (3).

Bridges the disciplines of acting and filmmaking, focusing on the collaborative process between directors and actors in bringing performances to life on screen. Students explore techniques for effectively communicating with actors, shaping performances and understanding the actor's process from script analysis to on-set adjustments. Through practical exercises, scene studies and peer critiques, both aspiring directors and actors develop a shared language that enhances their creative collaboration. The course emphasizes building trust, providing constructive feedback and creating an environment that encourages nuanced and authentic performances. Ideal for students interested in directing, acting or anyone involved in storytelling for film.

MART 302. Computer Modeling 2 (3).

Teaches students proficiency on modeling vehicles and weapons. With the use of polygonal tools students learn to maximize topology efficiency to bring realistic models to life. Class covers different topics such as fabric modeling, complex UV unwrapping and retopology techniques. Prerequisite(s): MART 113 and MART 220 with a C or better.

MART 307. Location Sound Recording for Media (2).

Students learn the operation of audio equipment for set location recording. Students also learn post-production workflow for deliverable products.

MART 311. Introduction to Sound for Digital Media (3).

Introduces the theory, history and techniques of digitally produced sound and music for film, animation, games and commercial audio. Topics include history and theory of sound with images, digital audio workstation software, synching, library sound, microphones, ADR, sound mixing and production teamwork.

MART 312. Digital Sets (3).

Demonstrates how to create believable digital sets and environments. Class covers photogrammetry using Agisoft Photoscan and photography. Speedtree, texturing and lighting are also heavily focused on with the intent of creating realistic recreations of environments. Students also learn how to render high quality environments that can be used for different entertainment purposes. Prerequisite(s): MART 112, MART 113 and MART 220 with a C or better.

MART 315. Character Art for Games (3).

Utilizes techniques learned in Computer Modeling, Digital Sculpting, and Texturing and Shading to create high quality 3D characters for games. The course goes over anatomy, fabric and hair sculpting, hair cards and retopology. The class demonstrates how to optimize model topology and textures so it runs smoothly in a game engine. Prerequisite(s): MART 220, MART 335 and MART 323 with a C or higher.

MART 316. Environment Art for Games (3).

Demonstrates how to execute high quality environment for games. The class goes over modular sets, digital sculpting and complex texturing for environments. Baking and Level assembly are also covered preparing students to deal with the industry demands and new level of realistic environments. Optimization is heavily emphasized so students can learn how to approach game engine limitations. Prerequisite(s): MART 220, MART 323 and MART 355 with a C or better.

MART 320. 2D Digital Animation (3).

Students work through the process of creating 2D animations using digital drawing software. Students identify techniques that have been used for decades in the animation industry and examine up-and-coming techniques. Students create functioning and high-quality 2D animations in a 3D space. By the end of the course students are able to create their own 2D animations and understand the proper workflows that cover the various styles of animation in the industry. Prerequisite(s): MART 222, MART 270.

MART 321. Scene Study II (3).

Further expands upon the principles established in Scene Study I. Students continue to hone skills in scene study and character development with particular emphasis on mapping out a character arc and performing out of sequence. Prerequisite(s): MART 221.

MART 322. Digital Animation II (3).

Explores advanced animated techniques. Students learn advanced animation of a character and learn to understand the advanced animation process of blocking, in-between, refining and animation graph splines, and animation passes. By the end of the course, students

animate realistic and convincing action with an animated character. Prerequisite(s): MART 222 or instructor's consent.

MART 323. Texturing and Shading 2 (3).

Builds and utilizes techniques and concepts in Texture and Shading 1. Students learn how to use Substance Painter and integrate shaders and textures created inside of Arnold Renderer and Marmoset Toolbag. Also, 3D painting, 3D projection and procedural texturing are used to help students achieve their artistic goals and create portfolio pieces within the class. Class emphasizes on telling stories behind textures, such as aging, weathering and rusting. Prerequisite(s): MART 112 and MART 113 with a C or better.

MART 325. Editing for Film (3).

Examines the role of the editor in the filmmaking process. It affords hands-on experience in the editing process. It provides an introduction to the theory, technique and art of editing. Students learn the basic tasks and vocabulary of the editing process. Editing work focuses on story-telling, visual and aural impact, as well as the dramatic build of a scene, the psychology of the characters, emotional beats, and the effect of sound and music, rhythm and pacing.

MART 326. Color Correcting and Grading for Film (3).

Focuses on color grading techniques used in visual storytelling. Theoretical aspects are explored regarding color theory, as well as, technical elements involving the use of specific software and the practical application of color grading a variety of videos in different genres.

MART 331. Combat Design (3).

Students combine animation, VFX and programming to create combat that feels good to the player and matches the design goals of the game design document. Students explore first-person, third-person and fighting game combat design. Prerequisite(s): MART 222 and MART 232 .

MART 332. Game Design II (3).

Students design and create a game that can run as a mobile app and on a desktop computer. Students work with touch screen input versus analog inputs from a mouse and a keyboard. Students work with sprites, images, sound and coding while creating the game. Prerequisite(s): MART 232 or instructor consent.

MART 333. Systems Design (3).

Offers a structured approach to video game systems design and covers essential mathematics concepts used in game systems and mechanics. Students design spreadsheets for system analysis and design. Students apply these skills to a practical game design project focusing on creating and refining game systems. Prerequisite(s): MART 232 and MART 261.

MART 335. Motion Capture Performance (3).

Focuses on the skills, knowledge and techniques needed to create a fully realized performance for motion capture. Emphasis is placed on physicality in performance, continuity, character arc and professional behavior. Students have opportunities to collaborate with digital arts students on projects throughout the semester.

MART 340. Voice-Over Performance I (3).

Focuses on the skills needed to excel in the field of pre-lay voice-over work. Concentration is placed on developing multidimensional and memorable characters through voice and sound alone for animation, video games, audiobooks, narration, promos and commercials. Students learn the technical aspects of voice artistry with hands on experience recording in a professional sound booth. Prerequisite(s): MART 321.

MART 343. Audio Science and Acoustics (3).

Explores the scientific foundation of audio and sound. Topics include room acoustic design and measurement; topics in psychoacoustics such

as sound perception, loudness and localization; musical acoustics such as the physical properties of how instruments generate sound, decibel scales and measurements; frequency analysis; and basic digital audio signal processing.

MART 347. Modern Audio Production (2).

Students practice innovative production techniques. Experience in nontraditional, often unorthodox, techniques for contemporary styles of music. Students use the most current devices, controllers and peripherals for modern production.

MART 351. Principles of Video Production (3).

Introduction to single-camera video production. Through in-class demonstrations, lectures, readings and hands-on projects, students begin learning skills and techniques of HD video field production and postproduction. Students work on their own projects (individually and in groups) producing, directing, shooting and editing projects.

MART 352. Story Boarding (3).

Focuses on storyboarding techniques, the visual and auditory language of time-based media, design development, concept development, and story development. The principles and issues presented are relevant for animation, live-action, film and video. The application of these principles to short film projects is emphasized.

MART 353. Video Storytelling (3).

Production-oriented course teaches students how to tell stories using video. Focuses on storytelling elements (narrative, characters, plot, conflict, resolution) through the medium of video accompanied with audio. In addition, the history of video storytelling, major advancements in the medium, important directors and current trends are examined.

MART 354. Clay Modeling (3).

Offers a fundamental understanding of the human form via traditional clay sculpting techniques. Students are exposed to variations of the human figure in clay sculpting, and they develop their perception and understanding of the human form, its anatomy, mass, movement and dynamics. Emphasizes working techniques in clay. Class works with live models and with references from printed media.

MART 355. Digital Sculpting (3).

Students are introduced to high definition sculpting in the current, industry standard 3D sculpting software. This includes learning all of the processes and techniques that are for digital sculpting. This also includes methods used within the industry to achieve high end results. Prerequisite(s): MART 220.

MART 357. Rigging (3).

Examines 3D rigging for animated features, film and video games. Students learn to use industry standard 3D computer software to create fully constructed 3D character rigs and prop rigs. The differences between character rigging and prop rigging are also studied. Students learn how to implement technical animation techniques and how to work with a skeletal hierarchy. Finally, students also learn industry standard best practices and terminology related to rigging. Prerequisite(s): MART 222.

MART 359. Cinematography I (3).

Introduces the fundamentals of motion picture cinematography. Includes both technical knowledge and artistic application. Focuses on the camera and lighting equipment throughout the course. Topics include camera operation, composition and framing, lens choice, camera movement, setting proper exposure, lighting, blocking, continuity and visual storytelling.

MART 361. Game Technology and Coding II (3).

Students learn coding language that is pertinent to the video game industry. The skills, knowledge and techniques are a continuation of Game Technology and Coding I. Provides a foundation in

design, programming and creativity associated with video games. Prerequisite(s): MART 261 with a C or better.

MART 365. Props and Character Design (3).

Through this course students comprehend visual design. They use digital drawing software to create various props and characters that engage a target audience through visual storytelling. Students explore the design pipeline in both animation and game design. By interpreting techniques covering materials, lighting, color and composition, students develop their own portfolios. Prerequisite(s): ARTF 145 or ARTS 240 or MART 270.

MART 375. Acting for Digital Arts II - Period Styles (3).

This course continues the focus on the skills, knowledge and techniques needed to create a fully realized performance for the digital arts in Acting for Digital Arts I. Emphasis is placed on subtlety in performance, continuity, character arc and professional behavior. Work is in digital arts acting with focus on, but not limited to, film, audio, animation, virtual reality, video games and emerging technologies as it relates to cultural time periods and how it affects performance. Students have opportunities to collaborate with digital arts students on projects throughout the semester. Prerequisite(s): MART 265.

MART 379. Cinematography II (3).

Further explores the fundamentals of motion picture cinematography to include both technical knowledge and artistic application, covered in MART 359 Cinematography I. Students focus on their work on the camera and lighting equipment used throughout the duration of the course. Topics include camera operation, composition and framing, lens choice, camera movement, setting proper exposure, lighting, blocking, continuity and visual storytelling. Prerequisite(s): MART 359.

MART 385. Directing for Film (3).

Teaches directing for film to students who desire to lead a production team. Explores the skills and techniques of filmmaking. Topics include preproduction, framing and composition, camera work, directing actors, script analysis, and establishing mood, character and conflict. Prerequisite(s): MART 351.

MART 391. Professional Practices in Media Arts - Portfolio (1).

Research into and practical application of professional practices, resume development, cover letter development, portfolio development and career planning specific to the field of media arts. Requires attendance at professional design events and creation/maintenance of a professional portfolio and website.

MART 392. Professional Practices in Media Arts - Business Development (1).

Research into and practical application of professional practices. Examination of business practices to include invoicing, marketing, grant development and social media (artist page) development.

MART 393. Professional Practices in Media Arts - Legal Issues (1).

Research into and practical application of professional practices. Examination of media arts issues relating to copyright, fair use, piracy and other legal issues.

MART 399. Media Arts Practicum II (2).

An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 399A, 399B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course.

MART 399A. Media Arts Practicum II - Animation (2).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in

the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 399B. Media Arts Practicum II - Audio Production (2). Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 399C. Media Arts Practicum II - Filmmaking (2). Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 399D. Media Arts Practicum II - Game Design (2). Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 399E. Media Arts Practicum II - Collaborative Design (2). Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 399F. Media Arts Practicum II - Acting for Digital Arts (2). Expands and enhances the students' technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degrees. Practical training in the organization, presentation and technical aspects of production are the focus as students conceptualize, plan and implement a project related to the media arts. Practicum participants receive mentorship and feedback from degree facilitators and staff in support of their professional development during work on the projects.

MART 400. Level Design (3). Students are introduced to theory concepts involved with level layout and level design as it relates to proper game design. This includes the use of light, prop and other environmental aspects to design a proper, functional and player friendly experience. This includes the game genres of 2D level design, Horror 3D First Person and Third Person Open World level designing. Prerequisite(s): MART 232 and MART 332 .

MART 407. Game Audio (2). Using audio middleware, students can apply recording and production techniques to games. Students explore topics from the theory behind sound for games, as well as techniques and tools used to implement them.

MART 411. Advanced Sound for Digital Media (3). Enhances skills and knowledge of digitally producing sound and music for film, animation, games and commercial audio. Topics include advanced techniques in digital audio workstation software, synching, microphones, ADR, foley, effects, sound mixing, sound mastering and production teamwork. Prerequisite(s): MART 311 or COMM 406.

MART 413. Intimacy in Performance (3). Equips students with the necessary skills and knowledge to effectively navigate the complexities of performing scenes that require intimacy. Students find their voice in discovering and communicating what they are comfortable portraying on-screen with the goal of being confident in their choices while simultaneously honoring the story. Emphasis is placed on setting personal boundaries, creating a safe environment, and fostering open communication. Prerequisite(s): MART 321.

MART 414. Microphones (2). A deep dive into the world of microphones. Through a series of microphone shootouts and critical listening sessions students learn about different microphone types, specs, functions, techniques, optimal implementation and history.

MART 419. Immersive Audio (2). Production in multichannel audio formats. Covers the history and development of audio formats including mono, stereo, surround, binaural and immersive. A practical approach to recording live acoustic performances as well as post-production for immersive formats.

MART 421. Audition Technique (3). Focuses on the skills, knowledge and techniques used in successful auditioning. Students have the opportunity to participate in self-tape and live auditions throughout the semester. Emphasis is placed on the ability to prepare and execute a compelling performance in a timely manner and conduct oneself professionally in an audition environment. Prerequisite(s): MART 321.

MART 422. Digital Animation III (3). Serves as a direct continuation of MART 322. In this capstone class, students and the instructor collaborate as a team, creating a single large-scale animation project. Students animate a short film from start to finish, conceptualizing, planning, structuring and creating the animation. Each student works on both animating and a specific specialized role chosen by the student to complete the project. Prerequisite(s): MART 322 and one of the following: MART 355, MART 357, MART 424 or MART 474.

MART 424. Compositing and VFX I (3). Provides instruction in digital compositing. Students are taught how to work with software for VFX compositing. Examines the basics of film compositing and software tools that create special effects in media.

MART 425. Advanced Writing for Film and Television (3). Involves experience with developing a student's own feature length screenplay, in addition to screenplays being developed by their peers. Students learn more about the art and craft of creating a story including elements such as plot, character development, themes and dialogue. The course also focuses on the revision process including taking notes, giving constructive feedback to others, and rewriting and editing one's script. Prerequisite(s): MART 225 .

MART 432. Game Design III (3). Designed to further the concepts, techniques and skills learned in preceding game design courses. Students develop games from the class and work to improve the designs. The basics of programming are covered in order to advance student projects and their knowledge. Prerequisite(s): MART 232, MART 332 or instructor's consent.

MART 433. Game Optimization (3). Students learn to assess performance issues with video games related to frame rate, project size, stuttering and more. Students learn how use tools such as the Profiler to track down the root cause of performance issues and implement changes to improve the performance of the video game. Prerequisite(s): MART 232 .

MART 434. VFX for Games (3).

Students gain basic practical understandings of visual effects creation for the entertainment industries emphasizing real time rendering solutions applicable to the areas of 1) video games, 2) film and television, and 3) motion graphics. Prerequisite(s): MART 220 and MART 232 with a C or better.

MART 435. Voice-Over Performance II (3).

Continues to focus on the skills developed in Voice-Over I. Particular emphasis is placed on the techniques involved with dubbing for animation and automated dialogue replacement (ADR) for film. Students create professional level work to use on their demo reels while gaining insight into the practices and standards of the industry. Prerequisite(s): MART 340.

MART 443. Marketing for the Actor (3).

Designed to equip actors with the tools to effectively market themselves within the entertainment industry. Students refine essential marketing materials such as headshots, resumes, reels, social media presence and personal websites. Emphasis is placed on identifying suitable roles, creating opportunities for self-promotion, and understanding the business side of the acting industry. By the end of the course, students have professional profiles on casting websites, experience submitting to agents and managers, and strategies for building industry connections. Prerequisite(s): MART 321, MART 421. Pre- or corequisite(s): MART 391.

MART 450. 3D Asset Pipeline (3).

Students take all of the knowledge learned in previously listed classes in order to create a game-ready 3D character for a game or for animation purposes using the character development pipeline. This includes high-definition character sculpting, retopologizing, UVing and texturing, with all being done using current, industry standard software. This character includes a humanoid base, clothing, accessories and a weapon for that character. Prerequisite(s): MART 220, MART 300 and MART 355 .

MART 460. Game AI Programming (3).

Students build complex AI behaviors using industry-standard technology. Students learn the tools and techniques of making complex AI systems including state- and goal-based behavior, inter-agent communication, individual and group steering behaviors, pathing, finite state machines, and more. Prerequisite(s): MART 232.

MART 461. Tools Development (3).

Students learn how to create tools for artists to support their workflow. Students are introduced to the Python programming language to build programs that assist artists in the Digital Content Creation (DCC) workflow. Students create a build pipeline for video game projects and gain a deep understanding of source control and project task management tools. Prerequisite(s): MART 433 .

MART 465. Digital Concept Art for Characters and Environments (3).

Designed to teach students how to create various concept art designs for various media at a professional level. Over this course, students learn 2D digital drawing techniques tailored for those who wish to pursue concept art in their careers. This process includes conceptualizing characters, creatures and environments with 2D digital drawing software. Students examine the industry standard practices of conceptual design and how to properly develop portfolios. Prerequisite(s): MART 365.

MART 474. Compositing and VFX II (3).

Continues the study of the fundamental techniques of digital compositing. Design, plan and produce modern VFX projects through

a VFX story. Use a variety of computer software for VFX production work. Prerequisite(s): MART 424.

MART 481N. Internship (1-3).

Complements and enhances the student's academic program by providing an opportunity to apply and acquire knowledge in a workplace environment as an intern.

MART 485. Stunt Fighting for Film (3).

Designed to develop the skills and techniques of basic stunt work with specific emphasis on film combat. Students focus on the development of stage fighting, basic stage stunt work and on-camera combat choreography. In addition, safety and professional behavior on a digital arts project is studied.

MART 490. Special Topics (1-3).

An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 490A, 490B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course. For majors only. Prerequisite(s): instructor's consent.

MART 490A. Special Topics in Media Arts (1-3).

Supervised study and research into media arts. Involves cross disciplinary studies in more than one media arts area. Requires weekly consultation and progress reports. For majors only. Repeatable for credit. Prerequisite(s): instructor's consent.

MART 490B. Special Topics in Animation (1-3).

Supervised study and research into animation. Content varies. Requires weekly consultation and progress reports. For majors only. Repeatable for credit. Prerequisite(s): instructor's consent.

MART 490C. Special Topics in Game Design (1-3).

Supervised study and research into game design. Content varies. Requires weekly consultation and progress reports. For majors only. Repeatable for credit. Prerequisite(s): instructor's consent.

MART 490D. Special Topics in Filmmaking (1-3).

Supervised study and research into filmmaking. Content varies. Requires weekly consultation and progress reports. For majors only. Repeatable for credit. Prerequisite(s): instructor's consent.

MART 490E. Special Topics in Audio Production (1-3).

Supervised study and research into audio production. Content varies. Requires weekly consultation and progress reports. For majors only. Repeatable for credit. Prerequisite(s): instructor's consent.

MART 491. Acting for Film (3).

Focuses on the technical aspects of acting for film and television. Students have the opportunity to work with film students on projects throughout the semester. Emphasis is placed on delivering a compelling performance while simultaneously being aware of the limitations and logistics associated with on-camera acting. Familiarity with lenses, framing, angles, lighting, sound, mark, cues, etc. as they pertain to an actor's performance are prioritized as well as having an overall understanding of how a film set functions. Prerequisite(s): MART 221 and MART 321.

MART 499. Media Arts Practicum III (3).

An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 499A, 499B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course.

MART 499A. Media Arts Practicum III - Animation (3).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in

the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 499B. Media Arts Practicum III - Audio Production (3).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 499C. Media Arts Practicum III - Filmmaking (3).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 499D. Media Arts Practicum III - Game Design (3).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 499E. Media Arts Practicum III - Collaborative Design (3).

Expands and enhances the student's technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degree. Focuses on practical training in the organization, presentation and technical aspects of production as students conceptualize, plan and implement a project related to the media arts.

MART 499F. Media Arts Practicum III - Acting for Digital Arts (3).

Expands and enhances the students' technical and conceptual skills, and increases knowledge in the various mediums supported by the Bachelor of Applied Arts degrees. Practical training in the organization, presentation and technical aspects of production are the focus as students conceptualize, plan and implement a project related to the media arts. Practicum participants receive mentorship and feedback from degree facilitators and staff in support of their professional development during work on the projects.

MART 540. Advanced Editing and Mastering (3).

Explores editing, recording and production techniques at an advanced level. Students gain experience with industry standard digital audio workstations. Prerequisite(s): MART 110.

MART 570. Electronic Music Production (2).

Gain a working knowledge of composition and production of music made by computers. Covers techniques used in the electronic music genre ranging from EDM to music concrete.

MART 571. Live Sound Design (3).

Explores the acoustical, musical, and technical aspects of the live performance, in order to present the best possible sound to the audience.

MART 572. Analog Audio (2).

Topics in audio electronics, repair and preservation. Builds the skills necessary for the operation and upkeep of analog audio devices such as consoles, outboard processing gear and tape machines. Covers repair of audio electronics and components. Explores preservation techniques for digitization of analog formats. For undergraduate credit only.

MART 575. Seminar in Music Technology (3).

Covers developing trends in music technology and production.