MULTIMEDIA ARTS AND TECHNOLOGIES

MAT programs prepare students for careers in:

- 2D Animation and Character Design
- 3D Animation
- 3D Modeling and asset creation
- Environment Design
- Game Prototyping
- Interaction Design
- UX/UI design
- App Design
- Web Design/Development
- Media Art production and Digital Imaging
- Digital Illustration
- Digital marketing

MAT students develop projects which allow them to compile a portfolio to showcase and share their work with 4-year colleges, potential employers or potential clients.

MAT offers 2 tracks: one in Media Arts and the other in Animation and Gaming. You can work to obtain a Certificate or an Associates degree in each one of those fields.

Media Arts

Provides a foundation in digital media content, design and development, online communication and interactivity.

We provide a solid foundation in computer graphics, from digital imaging and image creation, to illustration and simple animation. We use state of the art and industry standard software in our classes. We offer a temporal Adobe subscription to students currently taking our production classes.

Our intermediate classes will help you develop a sense of timing for Motion Graphics, they will give you a foundation on Interaction design with both Mouse and Touch events (for computer and mobile design devices).

We will help you understand and make decisions when designing interfaces (UI) and to use good design thinking when discovering and empathizing, designing and defining, ideating and sketching, prototyping and testing interactive projects to generate good User Experience.

According to the Bureau of Labor statistics the median pay in 2024 for an "Special effects artist and Animator" was $99, 800. Those professionals usually require a Bachelors degree.
There were 73,000 professionals declared in 2023. The highest employer in the US is the state of California.
The median pay for "Web developers and Digital designers" in 2024 was $95,380. There were 22,600 professionals counted in 2023. The outlook is to grow at 8% (above average) and the State of California is also the highest employer.

Animation & Gaming

Provides proficiency in Maya, Unreal Engine and more. Every blockbuster motion picture for the past 8 years uses Autodesk Maya to create Computer Generated Imagery.

3D technologies are widely used for visualization in technical, scientific and educational fields. Companies in fields from aerospace to microbiology hire specialists in 3D production.

Game Engines are currently used in Game and Film Production and in Virtual and Augmented Reality. Environmental Design (defining a world with landscape terrains, vegetation, lighting parameters, weather range and whatever elements needed to present a credible environment) is the top-level job in the Entertainment industry right now.

If you want to take classes in 3D Animation but your machine is not running the software, we can provide (on a case by case basis) a laptop for the duration of the semester, through a loaning contract.

Join us to get ready for a fantastic and well paid career in the Entertainment industry.

Programs of Study

Associate Degrees

- Animation and Gaming, Associate of Arts (AA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/animation-gaming-aa/)
- Media Arts, Associate of Arts (AA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/media-arts-aa/)

Certificates of Achievement

- Animation and Gaming, Certificate of Achievement (C) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/animation-gaming-certificate-achievement/)
- Media Arts, Certificate of Achievement (C) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/media-arts-certificate-achievement/)

Skills Competency Awards

- Media Design and Development, Skills Competency Award (SCA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/media-design-development-skills-competency-award/)
- Mobile Media Core, Skills Competency Award (SCA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/mobile-media-core-skills-competency-award/)
- Web Marketing and Media Design, Skills Competency Award (SCA) (https://catalog.sbcc.edu/academic-departments/marketing/web-marketing-media-design-skills-competency-award/)

Department Award

- Game Design, Department Award (D) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/game-design-department-award/)

Credit Courses
Multimedia Arts and Technologies (MAT)

MAT 103 Introduction to Multimedia (3 Units)
Hours: 90 (36 lecture, 54 lab)
Provides a comprehensive look at the concepts and principles of digital media and computer graphics, and the consequences and influences in our current world. Elements of sensorial perception, psychology and narrative regarding media will be explored. Analysis of photography, film, animation, video and gaming, regarding elements of linear and interactive structures including history, aesthetics, and their cultural significance.
SBCC General Education: SBCCGE Area C
Transfer Information: CSUGE Area C1, SBCCGE Area 3, CSU Transferable, UC Transferable

MAT 105 Survey Of Multimedia Tools (3 Units)
Course Advisories: MAT 103.
Hours: 90 (36 lecture, 54 lab)
Overview of tools and applications used to produce interactive multimedia, including software applications, peripherals and hardware. Major applications for design, photo processing, web design, authoring and video. Evaluation and description of the strengths of each program and potential for integration of production applications.
Transfer Information: CSU Transferable

MAT 109 Informational Graphics for the Web (0.5 Units)
Hours: 9 (9 lecture)
Overview of how to create and publish on the web; informational graphics, with typical office applications (MS Word, Excel, PowerPoint, FileMaker, etc.).

MAT 111A Photoshop for Media Production (1 Unit)
Hours: 36 (9 lecture, 27 lab)
Short class in computer graphics using Adobe Photoshop. Students discover and practice organizing image-content into layers, layer groups and paths, to then export content into different file formats. Students get introduced to production techniques in Animation and media production. The long class in Digital Imaging (MAT 131) is also highly recommended to cover image creation.

MAT 112 Digital Drawing (3 Units)
Hours: 90 (36 lecture, 54 lab)
Introduction to digital drawing through the powerful art tool Adobe Illustrator. Create vector-based artwork that translates well to other graphic software and media. Create icons, characters, illustrations, interface elements and patterns. Work with type, native 2D shapes, 3D effects and vectorized bitmaps.
Transfer Information: CSU Transferable, UC Transferable

MAT 116 Interactive Design I (3 Units)
Hours: 90 (36 lecture, 54 lab)
Introduction to principles of Interactivity through the production of projects that use animation, interactive storytelling, interface design and responsive maps. Students learn to structure non-linear content and are exposed to principles of user experience, working with a variety of graphic and audio assets.
Transfer Information: CSU Transferable, UC Transferable

MAT 118 2-D Animation techniques (3 Units)
Hours: 90 (36 lecture, 54 lab)
Students will develop stronger skills in 2-D digital Animation. We will work with timing, storytelling, audio syncing, stop-motion, rotoscope and matting techniques. We will explore and recognize styles and techniques, incorporate both vector-based and bitmap graphics, and integrate photographic and video material.
Transfer Information: CSU Transferable, UC Transferable

MAT 121 Computer Interface Design (3 Units)
Hours: 90 (36 lecture, 54 lab)
Building Graphic user-interfaces (GUI) through the principles of computer interaction: window, icon, menu and mouse activity. Strategies to organize information on an interactive screen. Case Studies: Computer, Web and Mobile devices/Apps. Behavior, Usability(UX)and basic Prototyping. Good digital graphic-skills required.
Transfer Information: CSU Transferable, UC Transferable

MAT 131 Digital Imaging I (3 Units)
Hours: 90 (36 lecture, 54 lab)
An introduction to the image processing capabilities of PhotoShop to create and edit images and to prepare images for various media. No prior knowledge of PhotoShop is required. Includes Tools Selection, Channels, Layers, Filters, Text, Brushes, Effects, Masks, Adjustment Layers.
Transfer Information: CSU Transferable, UC Transferable

MAT 132 Digital Imaging II (3 Units)
Course Advisories: MAT 131 and 112.
Hours: 90 (36 lecture, 54 lab)
Advanced Photoshop course building on skills presented in MAT 131. Students work on projects that challenge their creativity and technical ability, and develop complex commercial and surreal projects working with image manipulation software.
Transfer Information: CSU Transferable, UC Transferable

MAT 134A Classical Animation I (3 Units)
Course Advisories: ART 120.
Hours: 90 (36 lecture, 54 lab)
Basic principles of animation studied through drawing and other media. Includes analytical understanding and depiction of movement of things and natural life forms in the real world.
Transfer Information: CSU Transferable, UC Transferable

MAT 134B Classical Animation II (3 Units)
Prerequisites: ART 124A, MAT 134A.
Course Advisories: ART 120.
Hours: 90 (36 lecture, 54 lab)
Further study and application of animation principles through drawing, with emphasis on character development, timing, action analysis, complex movement and the filmmaking process.
Transfer Information: CSU Transferable, UC Transferable

MAT 136 Introduction to 3D Animation (3 Units)
Hours: 90 (36 lecture, 54 lab)
Fundamentals of 3D animation including modeling, animation and rendering. Focuses on computer animation tools and techniques, and builds a solid foundation for developing character animation and special effect sequences.
Transfer Information: CSU Transferable, UC Transferable

MAT 137 Visual Effects for Film, Television and Gaming (3 Units)
Prerequisites: DRFT 136/MAT 136.
Hours: 90 (36 lecture, 54 lab)
Course on visual effects using 3-D and Compositing software to complete the scene production. Utilizing particles, rigid-bodies and soft bodies, students apply techniques for creating natural phenomena, such as waterfalls and blowing leaves. Also explored are methods for simulating physical interactions, such as a chair falling down a staircase.
Transfer Information: CSU Transferable, UC Transferable

MAT 138 3-D Character Animation (3 Units)
Hours: 90 (36 lecture, 54 lab)
Advanced 3-D computer animation course on character animation, including character design, modeling techniques for bodies, heads, hands and feet, skeletal and muscle systems, facial animation and lip-syncing to dialogue.
Transfer Information: CSU Transferable, UC Transferable

MAT 139 3-D Lighting And Rendering (3 Units)
Skills Advisories: Eligibility for ENG 98 and ENG 103.
Hours: 90 (36 lecture, 54 lab)
Advanced 3-D computer animation course on the art and science of lighting and rendering. Techniques for creating photo-realistic computer-generated imagery explored, including lighting, shadowing, texture mapping and shader manipulation.
Transfer Information: CSU Transferable, UC Transferable

MAT 141 3-D Modeling (3 Units)
Hours: 90 (36 lecture, 54 lab)
Fundamentals of 3-D modeling, texturing, lighting and rendering. Focus on 3-D modeling tools and techniques. Builds a solid foundation for designing and modeling products, characters, sets and props for animation, product advertisements, movies and video games.
Transfer Information: CSU Transferable, UC Transferable

MAT 145 Video Game Design (3 Units)
Hours: 90 (36 lecture, 54 lab)
Introduction to the design and development of video games. Focuses on the elements that make computer games compelling and the basics of game mechanics and environments to their stories and social experiences. Covers industry workflow from theories and practices to a hands-on AAA game engine. No programming experience is necessary.
Transfer Information: CSU Transferable, UC Transferable

MAT 149 Social Networking and Social Media (3 Units)
Hours: 54 (54 lecture)
The use and creation of media content in developing, integrating and leveraging social networks and applications. Through integration of a variety of social networking applications, students learn about how the creation of media content helps to establish network and communities of shared professional and personal interests. Includes online applications Wikis, Youtube, Vimeo, Flickr, Myspace, Facebook, Digg, etc., and their use as media-oriented platforms.
Transfer Information: CSU Transferable

MAT 153 Web Design I (3 Units)
Course Advisories: Art 140.
Hours: 90 (36 lecture, 54 lab)
Students focus on design principles, including: usability, color, layout, fonts, negative space, image quality and placement. Students learn: designing with grids, designing for different screen environments, sizing and optimizing photos. Proficiency in Photoshop required.
Transfer Information: CSU Transferable

MAT 154 Web Design II: Integration (3 Units)
Prerequisites: MAT 153.
Hours: 90 (36 lecture, 54 lab)
Students create a web site from scratch using HTML5, CSS3 & jQuery. You will learn how to employ bootstrap, responsive design, custom Wordpress themes, PHP contact forms, and organic Search Engine Optimization. Requires proficiency in Photoshop.
Transfer Information: CSU Transferable, UC Transferable

MAT 164 Online and Mobile Marketing (3 Units)
Same as: MKT 164
Hours: 54 (54 lecture)
Introduction to those components needed to develop effective online and search engine marketing (SEM) strategies. Emerging digital media and mobile advertising campaigns are emphasized. Includes search engine optimization (SEO), paid placement ads, keyword identification, placement strategies, SEM research and management tools, and WAP advertising applications in mobile marketing and video advertising.
Transfer Information: CSU Transferable

MAT 167 3-D Environments Design (3 Units)
Course Advisories: MAT 136, MAT 141, MAT 145.
Hours: 90 (36 lecture, 54 lab)
Introduction to the design and creation of a 3D environment for a game or visualization. Students practice with techniques and workflow towards the creation of 3D assets, and bring them into a modern rendering engine, to create there the Environments or worlds where the project will take place. Students complete a 3D portfolio piece from their own inspiration.
Transfer Information: CSU Transferable, UC Transferable

MAT 168 Serious Game Prototyping (3 Units)
Hours: 90 (36 lecture, 54 lab)
Prototyping games for virtual reality, simulations, education and marketing. Topics include game play, game-based learning, game concept development and game prototyping. Students explore game prototyping through hands-on projects.
Transfer Information: CSU Transferable

MAT 205 Portfolio Development (3 Units)
Hours: 90 (36 lecture, 54 lab)
Guides students as they develop and refine media pieces towards the personal online portfolio that they will need for job interviews, freelance work and transferring to other institutions. Assignments will help students define their strengths and present their skills through projects in a compelling way, showcasing: animation, motion graphics, interactive prototypes (UI and UX), concept art or character design in accessible online formats. Online presence, resumes, and demo reels are covered.
Transfer Information: CSU Transferable

MAT 216 Interactive Design II - Simple Games (3 Units)
Prerequisites: MAT 116.
Hours: 90 (36 lecture, 54 lab)
Students further develop skills in interactive production by prototyping projects like simple games and apps. They work on interactive environments to develop portfolio pieces and discover, first hand, about issues in user experience.
Transfer Information: CSU Transferable, UC Transferable

MAT 290 Work Experience In Multimedia (1-4 Units)
Course Advisories: MAT 101, MAT 110.
Hours: 216 (216 lab)
Supervised employment of students with the intent of creating student awareness of work opportunities, assisting them to acquire desirable work habits, and providing them with experiences in multimedia and related industries. Students perform assigned responsibilities as an employee, follow employer's policies, write individual learning objectives, keep a record of time worked, fill out a student data sheet, and secure an employee evaluation. Course restricted to 3 repetitions
Transfer Information: CSU Transferable