MULTIMEDIA ARTS AND TECHNOLOGIES

Program Description

Our mission:

- to develop students’ aesthetic and technical competence by providing training in state-of-the-art software, production processes, theory and concepts
- prepare students for employment in applied media industries
- prepare students to transfer to media programs at 4 year institutions
- give students a core background in art, design and online marketing
- give students technical skills in media content development and web communication

We offer a mainly project-based curriculum and in order to ensure the success of each student, we provide the following:

- tutoring in both our face-to-face and online classes
- computers with state-of-the-art software
- online resources (tutorials, lynda.com, blogs, forums)

Media Arts Degree/Certificate

18 units provides a foundation in digital media content design/development, web communication and interactivity. According to the State of California EDD, "web developers" is the sixth fastest growing occupation in the State, with an expected 48.3% growth by the year 2024. That is over 10,000 jobs in this field alone. Moreover, the field of "media artist and animators" is expected to grow over 15% in the same time period.

Animation and Gaming Degree/Certificate

27 units provides a foundation in 3D animation production and game development for entertainment, serious games and simulations. Our 3D animations classes offer proficiency in Autodesk Maya. Every blockbuster movie for the past 8 years has used Maya at one stage or another for Visual Effects. In addition to how to create video and app games, our gaming classes explore; Virtual Reality (VR), Assisted Reality (AR), and other emerging entertainment technologies.

Career Opportunities

- Web Designer/Developer
- UX/UI Designer
- Interactive Web Designer
- Multi-Media Artist
- 3D Animators
- Game Designer
- App Designer

Advising

In addition to the college counselor at the Career Center, the MAT program chairperson advises students who are planning a career in MAT.

Program Cost and Outcome

For planning purposes, the website below provides information on the cost of attendance, program length (assuming a student attends full-time), financing options and historical student completion rates:
http://www.sbcc.edu/financialaid/gainfulemployment

Programs of Study

- Animation and Gaming, Associate in Arts (AA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/animation-gaming-aa)
- Media Arts, Associate in Arts (AA) (https://catalog.sbcc.edu/academic-departments/multimedia-arts-technologies/media-arts-aa)
- 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)
- 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/multimedia-arts-technologies/web-marketing-media-design-skills-competency-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)
Skills Advisories: Eligibility for ENG 98 and ENG 103.
Hours: 90 (36 lecture, 54 lab)
An introduction to multimedia, including production processes, tools, techniques, trends and design principles, and production requirements of interactive multimedia development for the Web, on different devices. Provides a comprehensive look at the concepts and principles of digital media, visual literacy and the influence on business, education, art, science and culture.
Transfer Information: CSUGE Area C1, CSU Transferable, UC Transferable

MAT 105 Survey Of Multimedia Tools (3 Units)
Course Advisories: MAT 103.
Skills Advisories: Eligibility for ENG 98 and ENG 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 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 113 Dreamweaver (3 Units)
Skills Advisories: Eligibility for ENG 98 and ENG 103.
Hours: 90 (36 lecture, 54 lab)
Students learn how to use a popular tool for web page design and construction called Dreamweaver. Includes how to inset images, create frames, make links, use forms, and manage websites by creating actual web pages.
Transfer Information: CSU Transferable, UC Transferable

MAT 114 Dreamweaver II. Web development (3 Units)
Hours: 90 (36 lecture, 54 lab)
Students will develop a responsive website using HTML5, CSS3 and JavaScript with the latest Dreamweaver release, while learning best practices for Accessibility, usability, and search engine optimization.
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 130 Fundamentals Of Digital Animation (3 Units)
Course Advisories: Art 124A.
Skills Advisories: Eligibility for ENG 98 and ENG 103.
Hours: 54 (54 lecture)
Introduction to digital animation, including production processes, tools, techniques, trends and opportunities. Examines the issues and limitations of various digital image and animation formats as to resolution, color and motion. Provides an overview of various industries utilizing digital animation, including terminology and methodology.
Transfer Information: CSU 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.
Skills Advisories: Eligibility for English 98 and 103.
Hours: 90 (36 lecture, 54 lab)
Advanced Photoshop course which builds on skills learned in MAT 131. Students work on projects which challenge their creativity and technical ability. Working with this image manipulation software, students develop complex commercial and surreal projects.
Transfer Information: CSU Transferable

MAT 134A Classical Animation I (3 Units)
Same as: ART 124A
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

MAT 134B Classical Animation II (3 Units)
Same as: ART 124B
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

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.
Skills Advisories: Eligibility for ENG 98 and ENG 103.
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)
Skills Advisories: Eligibility for ENG 98 and ENG 103.
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

MAT 149 Social Networking and Social Media (3 Units)
Same as: COMP 149
Skills Advisories: Eligibility for ENG 110 or 110H.
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 152 Compositing and Visual Effects for Animation (3 Units)
Skills Advisories: Eligibility for ENG 98 and ENG 103.
Hours: 90 (36 lecture, 54 lab)
Introduction to compositing and visual effects for computer animation.
Working with Maya image sequences and alpha channel information.
Color manipulation, filtering, keying (blue/green screen processing),
camera tracking, rotoscoping and layering are used to create photo-
realistic visual effects sequences.
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 learn the difference between markup and presentation, how
to create a Web page from scratch, manipulating HTML5, CSS3 and
image files. Create layouts that are completely custom and learn about
floats and positioning as part of this process. Requires proficiency in
Photoshop.
Transfer Information: CSU Transferable

MAT 164 Online and Mobile Marketing (3 Units)
Same as: MKT 164
Skills Advisories: Eligibility for ENG 98 and ENG 103.
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)
Hours: 90 (36 lecture, 54 lab)
Create assets for visualization and games. Includes modeling,
environmental lighting, advanced textures, project workflow and
management. Students complete a photo-realistic model for visualization
or a game project versus portfolio preparation.
Transfer Information: CSU 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 183 Radio Production I (3 Units)
Skills Advisories: Eligibility for English 98 and 103.
Hours: 90 (36 lecture, 54 lab)
Introduction to fundamentals of radio production, including studio and field work. Covers producing, managing, scheduling and broadcasting/multicasting for a modern radio station. Through basic studio exercises and productions, including commercials, public service announcements, interview programs and general programming, students learn the tools of the medium, radio station formats and the creation of radio programming.
Transfer Information: CSU Transferable

MAT 205 Portfolio Development And Professional Practices (3 Units)
Prerequisites: MAT 153 or GDP 212 or PHOT 180.
Hours: 90 (36 lecture, 54 lab)
In this final course, students learn how to prepare for media arts careers (web design, digital design, audio, animation and video). Communicating with employers through cover letters and interviews, developing resumes and portfolios/reels, and using online resources for job hunting are covered. For the person who has taken several media arts courses and is nearing completion of the program.
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)
Skills Advisories: Eligibility for ENG 98.
Hours: 300 (300 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