



Entertainment Technology

Program Guide
Summer/Fall 2006

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Overview

MISSION STATEMENT

The mission of the Entertainment Technology program is to provide students with a comprehensive and well-rounded education in rapidly evolving media fields. The Entertainment Technology curriculum is designed to meet the changing needs of the entertainment industry. ET courses are comprehensive and rigorous, covering areas such as Animation, Game Development, Post-Production and Visual Effects. Students will develop professional portfolios, work in teams, and may participate in internships with industry partners when available.

While the Entertainment Technology certificate programs are designed as full-time programs, students may also attend part-time. Courses are available during the day and evenings Monday through Friday and during the day on Saturday.

CONTACT INFORMATION

For general information about the Design Technology department of Santa Monica College, please refer to our website, <http://academy.smc.edu>. Requests for general information may also be sent to the following address:

Academy of Entertainment & Technology
1660 Stewart Street
Santa Monica, CA 90404
310-434-3700
academy_info@smc.edu

Santa Monica College counselors are available to help you with your educational, personal, and career planning. It is strongly recommended that you meet with a counselor each semester in order to monitor and discuss your progress. The Academy of Entertainment & Technology counselor may be contacted using the following information:

Clifton Dobbs, Academic Counselor
310-434-3783
dobbs_clifton@smc.edu

DEPARTMENT CERTIFICATE OF COMPLETION INFORMATION

The Design Technology department offers a Digital Foundation Certificate of Completion upon completion of the required courses listed below. Students must receive a “C” letter grade or higher in each course to receive the Certificate of Completion.

Digital Foundation (16 Units)

ET 2, Storytelling (3)
ET 3, Principles of Project Management (3)
ET 18, Storyboarding (2)
ET 31A, Digital Video Fundamentals (3)
ET 37, Digital Imaging I (3)
ET 94, Color Theory (2)

CAREER CERTIFICATE INFORMATION

The Entertainment Technology program currently offers a Career Certificate in Animation. This certificate requires that students first complete the required coursework for the Digital Foundation Certificate of Completion as listed above. Students must receive a “C” letter grade or higher in each course to successfully complete any of the Career Certificate programs. Students must complete major requirements in effect at the time enrollment begins or major requirements in effect at graduation as long as continuous enrollment is maintained. See the SMC catalogue for definition of continuous enrollment.

Additional certificates in Game Development, Post-Production and Visual Effects are under development.

Career Certificate in Animation (59 Units)

Requires the Digital Foundation coursework (16 Units) in addition to the following required courses (43 Units):

Required Courses:

ET 19A, 2D Animation I (2)
ET 19B, 2D Animation II (2)
ET 20, Visual Development (3)
ET 24, 3D Animation I (4)
ET 24B, 3D Character Animation (3)
ET 25, 3D Animation II: Character Rigging (4)
ET 26, 3D Animation III: Rendering (4)
ET 30A, Animation Project I (2)
ET 30B, Animation Project II (3)
ET 61, History of Animation (3)
ET 40, Digital Audio Design (3)
ET 72, Career Exploration (2)
ET 91, Perspective Drawing (2)
ET 92, Figure in Motion (3)

Required Electives (one of the following):

ET 23, 2D Character Animation (3)
ET 32, Digital Compositing (3)
ET 34, Web Animation I (3)
ET 38, Digital Imaging II (3)
ET 41, Advanced Digital Editing (3)
ET 63, Digital Tracking & Integration (3)
ET 64, Digital Effects I (3)
ET 75, Digital Production for 2D Animation (3)
ET 95, Costumed Figure & Animal Drawing (3)
ET 97, Advanced Figure in Motion (3)

ASSOCIATE IN ARTS DEGREE INFORMATION

Students who wish to receive an A.A. Degree or to transfer to a four year program must satisfy additional General Education requirements as described in the SMC catalog in addition to completing a certificate program. Refer to the SMC Transfer Center articulation webpage (www.smc.edu/transfer/articulation) for more information. Students who plan to transfer to a four year college are strongly encouraged to speak with an academic counselor.

A.A. Animation

Required Courses:

ET 2, Storytelling (3)
ET 3, Principles of Project Management (3)
ET 18, Storyboarding (2)
ET 19A, 2D Animation I (2)
ET 19B, 2D Animation II (2)
ET 20, Visual Development (3)
ET 24, 3D Animation I (4)
ET 24B, 3D Character Animation (3)
ET 25, 3D Animation II: Character Rigging (4)
ET 26, 3D Animation III: Rendering (4)
ET 30A, Animation Project I (2)
ET 30B, Animation Project II (3)
ET 31A, Digital Video Fundamentals (3)
ET 37, Digital Imaging I (3)
ET 40, Digital Audio Design (3)
ET 61, History of Animation (3)
ET 72, Career Exploration (2)
ET 91, Perspective Drawing (2)
ET 92, Figure in Motion (3)

ET 94, Color Theory (2)

Required Electives (one of the following):

ET 23, 2D Character Animation (3)
ET 32, Digital Compositing (3)
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ET 38, Digital Imaging II (3)
ET 41, Advanced Digital Editing (3)
ET 63, Digital Tracking & Integration (3)
ET 64, Digital Effects I (3)
ET 75, Digital Production for 2D Animation (3)
ET 95, Costumed Figure & Animal Drawing (3)
ET 97, Advanced Figure in Motion (3)

PREREQUISITE INFORMATION

All Academy courses are open to enrollment by any student who has been accepted to the college except where prerequisites are indicated. The term "prerequisite" may also refer to "corequisites" which are courses for which concurrent enrollment is required for enrollment in another. Students may wish to "challenge" prerequisite or corequisite requirements. A student may challenge the prerequisite or corequisite under the following reasons:

- The prerequisite was not established in accordance with the district's process for establishing prerequisites.
- The prerequisite is in violation of Title 5, section 55201.
- The prerequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner. Upon completion of the challenge procedure on the grounds of unlawful discrimination, the student has the right to file a formal complaint of unlawful discrimination with the Equal Employment Opportunity Officer.
- The student will be subject to undue delay in attaining a goal of his/her educational plan because the prerequisite course has not been made reasonably available.
- The student has the ability or knowledge to succeed in the course despite not meeting the prerequisite.
- The student seeks to enroll and has not been allowed to enroll due to a limitation on enrollment established for a course that involves intercollegiate competition or public performance, or one or more of the courses for which enrollment has been limited to a cohort of students. The student shall be allowed to enroll in such a course if no equivalent section is offered, and if otherwise he/she would be delayed by a semester or more in attaining the degree or certificate specified in his/her Student Educational Plan and the course in question is required to complete said degree or certificate.
- The student seeks to enroll in a course which has a prerequisite established to protect health and safety and the student demonstrates that he/she does not pose a threat to himself or herself or others.

If a student chooses to challenge a course prerequisite or corequisite based on one of the aforementioned reasons, the student must file a prerequisite/corequisite challenge form with the appropriate academic department or the counseling department. The District shall resolve the challenge within five working days. If the district fails to resolve the challenge within five working days, the student shall be officially enrolled in the course. If the challenge is upheld, the student shall be permitted to enroll if space is available when the student registers for the subsequent term.

ET Course Descriptions

ET 2, Storytelling

Units: 3

Prerequisite: None

This introductory critical thinking class covers the fundamentals of storytelling and story structure. Students will explore a general history of storytelling, from its pictorial roots of cave paintings to its modern forms in entertainment media. This class includes an overview of different cultures and how these cultures use story to entertain and disseminate social values. Emphasis will be on how story is used in modern western society and how storytelling impacts moral issues. Guest lectures from the entertainment industry will come to share with the class their ideas on storytelling in modern media. Students will learn to prepare and tell effective stories.

ET 3, Principles of Project Management

Units: 3

Prerequisite: None

Effective project management plays a key role in the execution and completion of interactive media projects. In this introductory course, students will learn step-by-step how a project develops and evolves through the project management process. Topics include planning, time management, risk management, team management, contract administration, and budgeting. Students will identify the components of a project management team, project manager roles and responsibilities, and organizational structures in interactive media. Case studies and problem solving will provide insight into practical applications of project management techniques.

ET 4, Interactive Design for e-Business

Units: 3

Prerequisite: None

This lecture course covers the design of web sites that combine the power of the web with information systems to improve the success of business, non-profit, educational, and government organizations. Students will study the use of private Intranets, shared Extranets, and the public Internet to connect organizations with their customers, vendors, suppliers, and employees. Topics will include electronic commerce, customer service, marketing, human resources, business to business applications, inventory control, and collaborative tools.

ET 7, Entertainment Law

Units: 3

Prerequisite: None

This course covers the legal rights and responsibilities of individuals, agencies, partnerships, and corporations as they apply to contract law and concentrates on the entertainment industry. Entertainment Law provides a broad overview of the legal issues arising in the day-to-day business of film, television, music, and new media. Students will gain an understanding of the various rights involved in the production and distribution of entertainment product, as well as the basics of rights acquisition and analysis. The course will also cover the legal relationships among talent, agents, managers, and attorneys and the laws governing entertainment professionals.

ET 11, Computer Skills for Animation & Interactive Media

Units: 3

Prerequisite: None

This introductory course covers the computer skills, concepts, and essential software needed to work successfully in the fields of computer animation and interactive media. Students will learn the use of general computer skills such as file organization for projects, keyboard shortcuts, using local area networks, and using proper file suffixes. Digital image concepts such as vector vs. raster images, color bit depth, and pixel dimensions will be introduced. Key software applications will be covered for raster image editing, vector image editing, audio, web browsing, and spreadsheets.

ET 12, Principles of Web Design

Units: 1

Advisory: ET 11

This course is designed as an introduction to web design for students with a basic knowledge of computers (PC or Mac), and an understanding of software applications for word processing and computer graphics. Students will learn to think critically about design for interactive media, while considering the practical, technical, production, and budgetary constraints. Students will also learn about the history of web-based media, and gain hands-on experience in the basics of interactive design and production.

This course uses Macromedia Dreamweaver MX.

ET 13, Game Prototyping

Units: 3

Advisory: ET 42

This computer-based course is focused on the design and implementation of successful prototypes for gaming platforms and the Internet. Students will learn the fundamentals of software authoring for these platforms including interactive story telling, navigation metaphors, technical constraints, gaming basics, and usability. Students will gain experience working with media (text, graphics, animation, video, and audio), using authoring environments, and writing scripts to control interactivity. Students will design and implement game and software titles that can be included in their portfolios.

This course uses the Gamemaker gaming engine.

ET 15, 3D Game Prototyping

Units: 3

Prerequisite: ET 13

This course continues to cover the fundamentals of game design and prototyping as applied to the development of electronic media using 3D software authoring tools. The course will focus on software driven play mechanics to execute the system dynamics, as well as the formal and dramatic elements that go into electronic gaming. Lectures and demonstrations will illustrate key concepts as found in the large variety of platforms and game genres. Topics also include authoring strategies and methodologies, resource management, stages of entertainment software development, and the business of the interactive entertainment industry. Students will become familiar with the integration of digital audio, character animation and 3D environments into a software engine prototype. Students will also learn digital authoring techniques for prototyping, playtesting and revising their own original game concepts.

This course uses the Unreal Developer Network.

ET 18, Storyboarding

Units: 2

Co-requisite: ET 2

This introductory course explores the fundamentals of the storyboarding process used in the entertainment industry. Students will learn the basic principles of how story is applied to a visual medium. Through lectures, assignments and critiques, students will master the techniques of staging, composition and camera movement. The class will also analyze and discuss the various applications of storyboards in broadcast media, animated short and feature-length films, videogames and visual effects.

ET 19A, 2D Animation I

Units: 2

Prerequisite: None

This introductory course focuses the basic principles of drawn animation. Through a series of lectures and projects, students will learn animation fundamentals such as squash and stretch, anticipation, follow through, overlapping action, arcs, timing and posing. The material covered in this class serves as a foundation for the advanced animation courses.

ET 19B, 2D Animation II

Units: 2

Prerequisite: ET 19A, ET 92

This course focuses on the underlying principles of character animation. Techniques such as timing, weight, anticipation, squash and stretch, overlapping action, exaggeration and staging are covered. Students will also be introduced to the basics of lip-synch and performance animation.

ET 20, Visual Development

Units: 3

Prerequisites: ET 2, ET 18, ET 91, ET 94

This course explores the pre-production process used in the entertainment industry. Students will learn how to visually develop an idea for production. Areas covered by this course include story/concept development, art direction, writing, storyboarding, layout, sound design, and timing. Students will create an individual story bible, style guide and animatic based on an assigned theme. The course will also examine the differences in film, broadcast and video game production, and their impact on the design process.

ET 23, 2D Character Animation

Units: 3

Prerequisite: ET19B

This course in basic character animation includes basic drawing, color, composition, and storyboarding. Techniques such as timing, weight, anticipation, squash and stretch, overlapping action, successive breaking of joint to create flexibility, composition and staging are also covered. The focus of this course is an in-depth analysis of what makes a character function and how those principles are applied to an animated character.

ET 24, 3D Animation I

Units: 4

Prerequisites: ET 19A, ET 37

This introductory course provides a basic overview of the tools used in the creation of 3D digital animation. Topics covered include modeling, character rigging, animation, shading, lighting and rendering. This course emphasizes the fundamental concepts of 3D digital animation as well as an understanding of the software. In addition to completing weekly exercises, students will apply the skills they learn to create an individual project.

This course uses Autodesk Maya.

ET 24A, 3D Animation I - Short Course

Units: 2

Advisory: ET 11

This introductory course provides an overview of the tools available for the creation of 3D digital animation. Through a series of lectures and weekly exercises, students will be introduced to the basics of character rigging and animation. This course is intended for industry professionals who would like to gain an understanding of 3D software. The course material of ET 24A is similar to that of ET 24, but does not require a final project. Students who have completed ET 24 may use ET 24A as a review course.

This course uses Autodesk Maya.

ET 24B, 3D Character Animation

Units: 3

Prerequisites: ET19B, ET 24

This course focuses on the basic principles of character animation as applied to 3D characters. Techniques such as posing, timing, weight, anticipation, squash and stretch, overlapping action, and staging are covered. Students will also be introduced to the basics of performance animation. In addition to completing weekly exercises, students will apply the skills they learn to create an individual project.

This course uses Autodesk Maya.

ET 25, 3D Animation II: Character Rigging

Units: 4

Prerequisite: ET 24

This course begins a detailed overview of the production process used in creating digital character animation. Using Autodesk's Maya software package, students will create an animated project from initial design to final character animation. Areas covered by this class include character modeling, previsualization, advanced character set-up and animation, facial animation, and soundtrack synchronization.

This course uses Autodesk Maya.

ET 26, 3D Animation III: Rendering

Units: 4

Prerequisite: ET 25

This course continues an overview of the digital animation production process begun in ET 25. Students will complete an animated project using Autodesk's Maya software package. Advanced shading, lighting, rendering and compositing techniques will be covered. Students will also be introduced to topics such as particles, dynamics and scripting.

This course uses Autodesk Maya.

ET 30A, Animation Project I

Units: 2

Prerequisite: ET 20, ET 31A

This course covers the design and pre-production of a faculty-supervised project for portfolio development. Students will develop an individual animation project from an original concept. Areas covered by this course will include story development, character and environment design, storyboarding, sound design, and animatics. The fundamentals of developing a demonstration reel will also be introduced. The project created in this course will be completed in ET30B.

ET 30B, Animation Project II

Units: 3

Prerequisite: ET 25, ET 30A

This course continues the production of a faculty-supervised project for portfolio development. Students will complete an original animation project begun in ET 30A. Areas addressed by this course include previsualization, animation, shading, and final output. This course will also cover demonstration reel development.

ET 31A, Digital Video Fundamentals

Units: 3

Advisory: ET 11

This introductory course familiarizes students with the fundamental aspects of digital video production. Covering acquisition formats, authoring formats and delivery formats, the class provides a strong foundation for working with digital picture (both motion picture and still pictures) and digital sound in non-linear digital video post-production. Topics will include digital versus analog, time code, frame rates, frame size, frame aspect ratio, pixel aspect ratio, data transfer rates, key frames, NTSC and PAL television standards, image composition and acquisition, video capture and compression. The technical aspects of video hardware and computer hardware will also be covered.

This course uses Apple Final Cut Pro.

ET 31B, Digital Video Editing

Units: 3

Prerequisite: ET 31A

This course focuses on the fundamental techniques, skills, and theories of editing as well as the technical requirements for assembling a digital video project. Through a series of hands-on projects, students will put traditional theories of picture and sound editing into practice. The course will also cover the history of nonlinear editing and provide an overview of the post-production process.

This course uses Apple Final Cut Pro.

ET 32, Digital Compositing

Units: 3

Prerequisites: ET 31A, ET 37

Digital compositing is the process of digitally manipulating a combination of source images to produce a seamless whole. This course provides a complete overview of the compositing process as it is used in film/television, visual effects, and multimedia. Areas covered include image creation and manipulation techniques as well as design and color fundamentals. Through a series of exercises and projects, students will develop the aesthetic and technical skills necessary for integrating diverse visual elements into cohesive imagery.

This course uses Adobe After Effects and Apple Shake.

ET 34, Web Animation I

Units: 3

Advisory: ET 11

This class will focus on all aspects of web animation, giving special attention to characters and graphics, as well as interactivity and light programming. Students will learn the tricks of controlling file size, special approaches for importing and creating animation, and all other production techniques needed for building complete web animation projects. The overall goal of the course is training students to function in a professional web animation studio.

This course uses Macromedia Flash MX.

ET 36, Web Animation II

Units: 3

Prerequisite: ET34

This course focuses on advanced techniques in interactive scripting, web interface design, advanced visuals, games, and motion graphics. Techniques for communicating between the interactive application and the browser and/or server are also covered. The goal of this course is to provide professional level skills for web animation and interface development. Students will create a large final project incorporating advanced techniques discussed in the course.

This course uses Macromedia Flash MX.

ET 37, Digital Imaging for Design I

Units: 3

Advisory: ET 11

Using computer technology, this class teaches students how to scan, manipulate and enhance digital images for graphic reproduction using Adobe Photoshop, an image processing software tool; digital image problem-solving with hands-on experience.

This course uses Adobe Photoshop CS.

ET 38, Digital Imaging for Design II

Units: 3

Prerequisite: ET 37

Building on fundamental skills, students learn to implement the more advanced features of programs to create and manipulate images specifically for use in multimedia, digital video 2D animation, and 3D animation. Topics include creating textured tiles, designing interfaces, compositing with layers, combining techniques to create special effects, preparing images for NTSC, and designing type.

This course uses Adobe Photoshop CS.

ET 39, Digital Audio for Games

Units: 3

Advisory: ET 11

This Windows based course will introduce students to the fundamentals of digital audio design and provide them with the basic tools to use the technology appropriately, creatively, and effectively. The course will focus on audio for games, digital media, and electronic music implementation. Practical experience will be balanced by an emphasis on understanding the fundamentals of the technology and its applications within the interactive game industry. Topics covered will include principles of good audio design; the essential hardware and software tools of music production in a digital environment; characteristics and differences between various audio formats; basic principles of sound waveform editing; and recording techniques for interactive and video integration.

This course uses Sony Sound Forge, Vegas, and Acid Pro.

ET 40, Digital Audio Design

Units: 3

Advisory: ET 11

Digital Audio Design will introduce students to the fundamentals of digital audio design and provide them with the basic tools to use the technology appropriately, creatively, and effectively. A large element of "hands-on" practical experience will be balanced by an emphasis on understanding the fundamental theoretical principles of the technology and its applications within the entertainment industry. Topics covered will include the basic characteristics and differences between analog and digital audio; principles of good audio design; the essential hardware and software tools of music production in a digital environment; characteristics and differences between the main digital audio formats; basic principles of sound waveform editing; Multi-track editing and recording techniques for multimedia and video integration.

This course uses Digidesign Pro Tools.

ET 41, Advanced Digital Editing

Units: 3

Prerequisite: ET 31B, ET 40

In this course, students will combine skills acquired in the advanced digital media courses to design and implement sound for their portfolio projects. Areas covered include live audio recording, working with prerecorded audio elements, and inventing sounds using foley techniques. The principles of sound sweetening and multi-track layering will be addressed, as well as multi-track compositing. Students will also learn advanced digital video editing techniques of integrating video and audio elements into a finished piece.

This course uses Apple Final Cut Pro and Digidesign Pro Tools.

ET 42, Principles of Game Development

Units: 2

Prerequisite: None

This course is an introductory overview of the electronic game development process that underlines the historical context, content creation strategies, and future trends in the industry. The course will also explain how games are produced, tested, and released.

ET 44, Game Design/Play Mechanics

Units: 3

Advisory: ET 42

This course covers the fundamentals of game design, prototyping and development. The focus is on building a solid understanding of play mechanics: The formal elements of play, the dramatic elements that make a game meaningful to its players, and the system dynamics that shape the overall experience. Lectures will use historical and current games and genres to illustrate key concepts. Topics include strategy and tactics, resource management, emergent complexity, puzzles and puzzle games, social games, online environments, role-playing, interactive drama, stages of development, and the business of games. Students will learn the process of design through prototyping, playtesting and revising their own original game concepts.

ET 48, Game Development Project I

Units: 3

Prerequisite: ET 24, ET 44

This advanced course builds on the fundamentals presented in ET 44 and focuses on the skills needed to make 3D game assets. Topics covered include 3D asset design, polygonal modeling, rigging, animation, texturing, lighting and effects. Working in teams, students will participate in a directed design of an original 3D game project from the initial design document through final asset creation. The projects developed in ET 48 will be implemented in ET 49.

This course uses the Unreal Developer Network and Autodesk Maya.

ET 49, Game Development Project II

Units: 4

Prerequisites: ET 15, ET 48

This computer-based course covers the production of a faculty-supervised project for portfolio development. Working in teams, students will implement the original game design documents created in ET 48. Emphasis will be placed on interactive design, efficient production practices, and successful communication. Each team will complete one major game prototype for portfolio development.

This course uses the Unreal Developer Network and Autodesk Maya.

ET 58, Motion Graphics I

Units: 3

Prerequisite: ET 11, ET 37

This course introduces students to the motion graphics capabilities of the Adobe After Effects software package. Projects assigned during the course will increase students' skill with both the creative and the technical challenges posed by motion graphics, each project based on common professional uses of After Effects.

This course uses Adobe After Effects.

ET 59, Motion Graphics II

Units: 3

Prerequisites: ET 58

This course focuses on common professional uses of advanced motion graphics techniques. Areas covered include velocity controls and interpolation, spatial resolution and temporal resolution, expressions, parenting, advanced text animation, advanced plug-ins, keying, and color adjustment. Through the projects completed in this course, students will increase their creative and technical skills to develop their professional portfolio.

ET 60, Post-Production Project

Units: 3

Prerequisite: ET 2, ET 31B, ET 59

This computer-based course covers the design and production of a faculty supervised project for portfolio development. Students will produce an original post-production project from creation of the original concept through the completion of the finished project. Emphasis will be placed on design quality and technical execution. Students will complete one major project for their portfolio.

ET 61, History Of Animation

Units: 3

Prerequisite: None

This course will explore the history of animation through its earliest beginnings on to the present. In addition to the chronological order of events, this course will look at the multi-faceted aspects of this relatively modern art form. The influences of economics and social/political pressures on the art form will be examined. Included will be the study of individual animators and multiple studios, big and small; different art techniques, materials, 2D and 3D. The class also will examine the principles of movement and see how they apply to the zoetrope as well as the computer.

ET 62, History Of Visual Effects

Units: 3

Prerequisite: None

This class will explore the evolution of visual effects in the movie industry and reveal the secrets behind some of the most memorable scenes in film history. Through lectures, sample clips and guest speakers this course will travel back in time to see how much technology has changed the face of film production and peek at what the future might hold. This course is for anyone who has ever asked the question, "How did they do that?"

ET 63, Digital Tracking & Integration

Units: 3

Prerequisites: ET 24, ET 32, ET 91

This course focuses on the techniques of combining digitally created elements with live-action footage. Areas covered include camera tracking, matchmoving, rotoscoping, motion capture and greenscreen photography. Through a series of exercises and projects, students will learn to seamlessly integrate computer generated elements with digital video. Emphasis will be placed on problem solving as well as software training.

This course uses Adobe After Effects, Alias Maya and Maya Live.

ET 64, Digital Effects I

Units: 3

Prerequisite: ET 24, ET 94

This introductory course provides a basic overview of the tools used in the creation of dynamic effects. Topics covered include interface fundamentals, procedural software architecture, 3D modeling, basic rigging and animation, particles, expressions, shading, and rendering. This course emphasizes the fundamental concepts of visual effects production as well as an understanding of the software.

This course uses Side Effects Houdini.

ET 65, Digital Effects II

Units: 3

Prerequisite: ET 64

This course focuses on advanced methodologies for creating digital effects. Topics covered include advanced particle simulations, expressions and scripting techniques, dynamic simulations, rendering solutions, and effects compositing. This course emphasizes procedural workflows and the interdependency of various software tools to achieve efficient and flexible results.

This course uses Side Effects Houdini.

ET 72, Career Exploration

Units: 2

Prerequisite: None

This course provides an overview of various career opportunities within the entertainment industry. By examining the production and postproduction processes of the animation, internet, videogame, film and television industries, students will be able to identify potential career paths. The course will investigate the skill requirements of entry-level career positions, and assist students in preparing to apply for these positions.

ET 75, Digital Production for 2D Animation

Units: 3

Prerequisite: None

This course covers the mechanics of digital production for animated films and commercials, TV series, short and feature length films. The student will have hands-on experience with the following stages of production: scanning animation drawings, digital pencil testing, digital inking and painting, asset management of scene files, the electronic exposure sheet, sound syncing to picture, background painting, digital compositing and camera moves.

ET 80, Digital Effects Project

Units: 3

Prerequisite: ET 32, ET 63, ET 64

This computer-based course covers the design and production of a faculty supervised project for portfolio development. Students will produce an original digital effects project from creation of the original concept through the completion of the finished project. Emphasis will be placed on design quality and technical execution. This course will also cover demonstration reel development.

ET 84B, Special Topics - Maya

Units: 1

Prerequisite: ET 24

This short hands-on course allows students to focus on areas of specific interest to them. Students will work with the instructor to design projects that increase their skill with this program.

ET 84C, Special Topics - Flash

Units: 1

Prerequisite: None

This short, hands-on course allows students to focus on the animation software program, Flash. Students will work with the instructor to design projects that increase their skill with this program.

ET 84F, Special Topics - Houdini

Units: 1

Prerequisite: None

This short, hands-on class in 3D modeling allows students to focus on areas of specific interest to them. Students will work with the instructor to design projects that increase their skill with this program.

ET 84H, Special Topics - Animation

Units: 1

Prerequisites: None

This short, hands-on course in animation allows students to focus on areas of specific interest to them. Students will be introduced to basic drawing, color, animation, character design, composition, and storyboarding. They will work with the instructor to design projects that increase their animation skills.

ET 84K, Special Topics - Video Editing

Units: 1

Prerequisite: None

This short, hands-on class in video editing allows students to focus on areas of special interest to them. Students will work with the instructor to design projects that increase their skill with video editing programs.

ET 89, Figure Drawing

Units: 1

Prerequisite: None

Students completing this course will have a familiarity with all major issues involved in drawing and visualizing the figure as an animate, three-dimensional form, and will have developed perceptual and manual skills equal to the challenge of understanding the human body as a structure in space, and in both static and dynamic modes. Comprehension of figure structure will be both anatomical and perspectival with special emphasis on developing a model of the human figure that can be easily visualized in the imagination and adapted for use in animation and related disciplines.

ET 90, Modeling

Units: 1

Prerequisite: None

This is an introductory, hands-on course in three-dimensional clay modeling. Designed to prepare computer animation students to "think in 3D", this class emphasizes the actual modeling techniques that will be used in virtual computer 3D modeling classes. The student will be introduced to professional model-making skills, vocabulary, tools, and materials.

ET 91, Perspective Drawing

Units: 2

Prerequisite: None

This course focuses on the principles of three-dimensional drawing. Emphasis is placed on fundamental concepts such as diminution, foreshortening, convergence and shading. Concepts such as horizon lines, vanishing points, and picture planes will be covered. Perspective drawing methods will be applied to rendering interiors, exteriors, objects and figures.

ET 92, Figure in Motion

Units: 3

Prerequisite: None

This is a foundation course for animators to understand and draw the figure in motion. This course teaches the student to visualize and quick sketch the figure in 3D as it moves through space. Emphasis is placed on construction, volume, key poses and gestures as the figure moves in a given action. Students will also develop portfolio drawings necessary for job interviews in the industry.

ET 93, Quick-Sketch/Rapid Visualization

Units: 1

Prerequisite: None

The major emphasis in this course for animation students will be the ability to draw clear and credible, simplified representations of complex visual phenomena. These phenomena include the human figure at rest or in motion, and the spatial environment pertaining to these figures and their actions. Students will use a variety of media, some of which will be applicable to on-sight, spontaneous reactions to action events. Skill development will include the ability to visualize and invent figures and environments from a variety of viewing angles and light conditions.

ET 94, Color Theory and Application

Units: 2

Prerequisite: None

This course involves the development of color perception, harmony, expression, and visualization and its application in traditional and digital imagery using a two, three, and/or four-dimensional format through a series of problem solving exercises and projects.

ET 95, Costumed Figure and Animal Drawing

Units: 3

Prerequisite: None

Students who successfully complete this course will learn to both understand and predict the physical correlation between the figure and its costume, acquiring in the process knowledge of the structural topology of draping. Attention will be given to the planar surface structure (tonal and directional) of draped fabric, in relation to linear perspective and light source. In the second half of this course, students will develop a working understanding of animal anatomy and movement and its comparison to human anatomy and movement as related to drawing. The student will learn proportional and perspective analysis of animal forms and be able to sketch a variety of animals from both life and through visualization techniques. A basic understanding of rendering surface tones and textures will also be established.

ET 97, Advanced Figure in Motion

Units: 3

Prerequisite: ET 92

This course is a continuation of the study of animating the figure in motion. Emphasis will be placed on the expression and fluidity of movement, composition, proportion, perspective, and the introduction of color. Character will be defined.

ET 98, Materials Applications

Units: 1

Prerequisite: None

Students in this class will concentrate on the creation of surfaces, textures and effects. The focus of this course is on materials editors and 2D paint and image manipulation software used in creating, editing and mapping of materials for 3D models.

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Appendix

- **Animation Career Certificate Track**

Animation Certificate

The Animation Career Certificate is a comprehensive study of 2D and 3D animation techniques, taking four semesters of full-time study to complete. Students will develop professional portfolios, work in teams, and may participate in internships with industry partners when available. While the certificate program is designed as a full-time program, students may also attend part-time. Courses are available during the day and evenings Monday through Friday and during the day on Saturday.

Note: The Animation Career Certificate requires that students also complete the required coursework for the Digital Foundation Certificate of Completion. These courses are italicized in the track below. Each required course must be completed with a grade of "C" or higher. Students who wish to complete an A.A. Degree or to transfer to a four year program must satisfy additional General Education requirements as described in the Santa Monica College catalog in addition to completing a certificate. Refer to the SMC Transfer Center articulation webpage (<http://www.smc.edu/transfer/articulation/>) for more information. Students who plan to transfer to a four year college are strongly encouraged to speak with an academic counselor.

SUGGESTED CURRICULUM TRACK

First Semester			
Course No.	Course Name	Units	Prerequisites
<i>ET 2</i>	<i>Storytelling</i>	3	None
<i>ET 18</i>	<i>Storyboarding</i>	2	<i>ET 2, Co-requisite</i>
ET 19A	2D Animation I	2	None
<i>ET 31A</i>	<i>Digital Video Fundamentals (Final Cut Pro)</i>	3	None
<i>ET 37</i>	<i>Digital Imaging for Design I (Photoshop)</i>	3	None
ET 92	Figure In Motion	3	None
Total Units		16	

Intersession			
Course No.	Course Name	Units	Prerequisites
ET 72	Career Exploration	2	None
ET 91	Perspective Drawing	2	None
<i>ET 94</i>	<i>Color Theory</i>	2	None
Total Units		6	

Second Semester			
Course No.	Course Name	Units	Prerequisites
<i>ET 3</i>	<i>Principles of Project Management</i>	3	None
ET 19B	2D Animation II	2	ET 19A, ET 92
ET 20	Visual Development	3	ET 2, ET 18, ET 91, ET 94
ET 24	3D Animation I (Maya)	4	ET 19A, ET 37
ET 61	History of Animation	3	None
Total Units		15	

Third Semester			
Course No.	Course Name	Units	Prerequisites
ET 24B	3D Character Animation (Maya)	3	ET 19B, ET 24
ET 25	3D Animation II: Character Rigging (Maya)	4	ET 24
ET 30A	Animation Project I	2	ET 20, ET 31A
ET 40	Digital Audio Design (Pro Tools)	3	ET 11, Advisory
Total Units		12	

Fourth Semester			
Course No.	Course Name	Units	Prerequisites
ET 26	3D Animation III: Rendering (Maya)	4	ET 26
ET 30B	Animation Project II	3	ET 25, ET 30A
Elective		3	See Electives Section
Total Units		10	

Animation Career Certificate = 59 Total Units

Required Electives (one of the following)			
Course No.	Course Name	Units	Prerequisites
ET 23	2D Character Animation	3	ET 19B
ET 32	Digital Compositing (After Effects)	3	ET 31A, ET 37
ET 34	Web Animation I (Flash)	3	ET 11, Advisory
ET 38	Digital Imaging for Design II (Photoshop)	3	ET 37
ET 41	Advanced Digital Editing (Final Cut Pro, Pro Tools)	3	ET 31B, ET 40
ET 63	Digital Tracking & Integration (After Effects, Maya, Maya Live)	3	ET 24, ET 32, ET 91
ET 64	Digital Effects I (Houdini)	3	ET 24, ET 94
ET 75	Digital Production for 2D Animation (DigiCel)	3	None
ET 95	Costumed Figure and Animal Drawing	3	None
ET 97	Advanced Figure in Motion	3	ET 92

Internships also available.