

3D ANIMATION (FORMERLY MEDIA ARTS)

Do you like to play video games? Do you enjoy movie special effects? Are you the creative type that's looking for a great way to unleash your imagination?

Victor Valley College offers state of the art training in 3D Computer Animation for all age levels and skill sets. Courses range from beginning to advanced, with no previous experience needed for any of the department's beginning classes. Several certificates are also available for students who complete a series of courses. Talk to a department representative for more details.

The field of 3D animation encompasses a wide range of applications, both in the entertainment industry and in business. Most individuals are familiar with the opportunities that the field of entertainment offers; video games, television shows and commercials, and film-based effects. There are also many other 'practical' applications that many aren't aware of, including the use of 3D animation in architecture, mechanical design, the medical field and the courtroom.

Architects use computer-generated graphics to show visual walk-throughs and flybys of new or upcoming projects. Doctors use 3D animation in both their practices and training facilities to illustrate a wide range of medical procedures, like knee replacements and heart valve surgery. Lawyers reinforce their court cases using 3D animation to convince juries of specific details for insurance lawsuits, or providing forensic evidence for an accident or injury that would otherwise be difficult to visually re-create. Mechanical designers use motion graphics to demonstrate how equipment and new innovations work. Even the military and NASA take advantage of the benefits of 3D animation; visually depicting military strategies and space exploration that might otherwise be hard to visualize.

Victor Valley College's 3D animation courses teach students how to 'use the tool'. Students are then given the flexibility to apply the skills that they've learned in whatever area or discipline they choose. Individuals learn the important core concepts and principles while being able to concentrate on the applications that most interest them.

New opportunities for skilled 3D animators continue to expand. The field is competitive, as the work is not just fun but also has the potential to be financially rewarding. Although not required in order to be successful, a background in the field of art is helpful. Most importantly, individuals interested in becoming successful as a 3D animator must be willing to use their creativity and imagination. Victor Valley College's 3D Animation program offers a terrific springboard to the possibilities that the industry offers. Come see what all the buzz is about!

Career Opportunities

Modeler, Texture Artist/Painter, Lighting Specialist, Character Designer, Character Animator, Special F/X Animator, Environment Designer, Game Level Designer, Architectural Animator, Mechanical Design Animator, Medical Visualization Artist, Courtroom Visualization Artist, Web Graphics Animator, Storyboard Artist, Layout Artist, Graphic Designer, Composer

Faculty

Nelle, Stephen

Transfer

- UC campuses offering 3D Animation courses and degrees include UC Los Angeles, Irvine and Santa Cruz.
- CSU campuses offering 3D Animation courses and degrees include CSU Fullerton, Long Beach, Northridge, Los Angeles and Chico.
- Private schools include Academy of Art College, Art Center, The Art Institutes, Cal Arts, Otis College of Art & Design and the Los Angeles Film School

Because of the need for highly-skilled 3D animators, many state college and universities now offer bachelor degrees in Digital Animation. Some have also branched out to offer more specific degrees within the general discipline, like Video Game Design. Private schools dedicated to the subject of 3D Animation also offer advanced training and degree possibilities. For the most up to date information on these programs and others, visit [assist.org](http://www.assist.org) (<http://www.assist.org>), or for private schools, [aiccu.edu](http://www.aiccu.edu) (<http://www.aiccu.edu>). Interested students should also consider visiting the college's Transfer Center in Bldg 23, or making an appointment with a counselor for more in depth planning alternatives. Department instructors can also provide input and additional details.

3D Animation - 3ds Max, AS

The 3D Animation - 3ds Max program offers an integrated / interdisciplinary approach to preparing students to meet current and future job market demands. The student is provided a balanced blend of art and technology-based skills essential for today's careers in 3D animation. The program offers both an Associate of Science degree and various certificates of achievement. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in 3D animation or for transfer to an institution of higher learning. The 3D Animation Associate of Science degree provides expertise leading to employment opportunities as a 3D modeler, texture artist / painter, lighting specialist, character designer, character animator, special effects animator, environment designer, game level designer, architectural animator, mechanical design animator, medical visualization artist, courtroom visualization artist, web graphics animator, storyboard artist, layout artist, graphic designer and compositor.

To earn this degree, complete the major coursework with "C" grades or better and all of the following graduation requirements: 60 minimum degree-applicable units (including a maximum 4 units of activity); 2.0 minimum overall GPA; 12 degree-applicable units through VVC; Information Competency; Global Citizenship; Kinesiology, and the VVC General Education pattern (<https://vvc-curr.courseleaf.com/degrees-certificates/vvcge/#vvcge>). Courses may count in one area only, either in the major or in a general education category. Courses counted in one AA/AS major may not be used in another AA/AS major.

State Control Number: 42802

Program Code: 3DA.3DSMAX.AS

Approved for Federal Financial Aid: Yes

Code	Title	Units
Required Courses		
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 56	Photoshop for Animators	3.0
ANIM 65	3ds Max Advanced Effects & Compositing	3.0
ANIM 160	3ds Max Fundamentals	3.0
ANIM 260	3ds Max Advanced Modeling and Materials	3.0

Code	Title	Units
ANIM 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
Total Units		18

3D Animation - Maya, AS

State Control Number: 42803

Program Code: 3DA.MAYA.AS

Approved for Federal Financial Aid: Yes

The 3D Animation - Maya program offers an integrated / interdisciplinary approach to preparing students to meet current and future job market demands. The student is provided a balanced blend of art and technology-based skills essential for today's careers in 3D animation. The program offers both an Associate of Science degree and various certificates of achievement. Course content is driven by industry needs in order to provide the student with the best possible preparation for a career in 3D animation or for transfer to an institution of higher learning. The 3D Animation - Maya Associate of Science degree provides expertise leading to employment opportunities as a 3D modeler, texture artist / painter, lighting specialist, character designer, character animator, special effects animator, environment designer, game level designer, architectural animator, mechanical design animator, medical visualization artist, courtroom visualization artist, web graphics animator, storyboard artist, layout artist, graphic designer and compositor.

To earn this degree, complete the major coursework with "C" grades or better and all of the following graduation requirements: 60 minimum degree-applicable units (including a maximum 4 units of activity); 2.0 minimum overall GPA; 12 degree-applicable units through VVC; Information Competency; Global Citizenship; Kinesiology, and the VVC General Education pattern (<https://vvc-curr.courseleaf.com/degrees-certificates/vvcge/#vvcge>). Courses may count in one area only, either in the major or in a general education category. Courses counted in one AA/AS major may not be used in another AA/AS major.

Code	Title	Units
Required Courses		
ANIM 50	Principles of Animation in Maya	3.0
ANIM 51	Advanced Materials, Lighting and Rendering With Maya	3.0
ANIM 52	Digital Character Animation With Maya	3.0
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 56	Photoshop for Animators	3.0
ANIM 80	Zbrush Fundamentals	3.0
Total Units		18

Digital Media - Animation and Motion Graphics 3ds Max Certificate of Achievement

State Control Number: 38844

Program Code: DMAMG3DS.CERT

Approved for Federal Financial Aid: Yes

The Digital Media - Animation & Motion Graphics 3ds Max Certificate of Achievement is designed to offer students a detailed look at one of the Animation industry's premier 3D objects packages. The courses taken to complete the certificate provide students an opportunity to learn a variety

of topics, including how to model 3D objects, how to create realistic textures and materials, the art of camera and lighting techniques, and a variety of keyframing solutions to bring their ideas to life. In addition to completing both individual and group projects, students also delve into the traditional principles of animation that serve to heighten the level of realism and believe ability of an individual's work.

Code	Title	Units
Required Courses		
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 56	Photoshop for Animators	3.0
ANIM 65	3ds Max Advanced Effects & Compositing	3.0
ANIM 160	3ds Max Fundamentals	3.0
ANIM 260	3ds Max Advanced Modeling and Materials	3.0
ANIM 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
Total Units		18

Digital Media - Animation and Motion Graphics Maya Certificate of Achievement

State Control Number: 38843

Program Code: DMAMGMAYA.CERT

Approved for Federal Financial Aid: Yes

This certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. Students will study a variety of topics, including how to model 3D objects, creation of a realistic material, the art of camera and lighting techniques, and an introduction to advanced keyframing. In addition to completing several animation projects, students learn about both the history of Animation and the traditional principles involved in making an individual's work look both realistic and believable.

Code	Title	Units
Required Courses		
ANIM 50	Principles of Animation in Maya	3.0
ANIM 51	Advanced Materials, Lighting and Rendering With Maya	3.0
ANIM 52	Digital Character Animation With Maya	3.0
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 56	Photoshop for Animators	3.0
ANIM 80	Zbrush Fundamentals	3.0
Total Units		18

Digital Animation Technician I 3ds Max Certificate of Career Preparation

State Control Number: N/A

Program Code: CAT1.CERT

Approved for Federal Financial Aid: No

The 3ds Max certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. The courses taken to complete the certificate provide students an opportunity to learn a variety of topics, including how to model 3D objects, how to create realistic textures and materials, the art of camera and lighting techniques, and a variety of keyframing solutions to bring their ideas

to life. In addition to completing both individual and group projects, students also delve into the traditional principles of animation that serve to heighten the level of realism and believability of an individual's work.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 160	3ds Max Fundamentals	3.0
ANIM 260	3ds Max Advanced Modeling and Materials	3.0
ANIM 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
Total Units		9

Digital Animation Technician I Maya Certificate of Career Preparation

State Control Number: N/A

Program Code: DAXSI.CERT

Approved for Federal Financial Aid: No

The Maya certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. Students will study a variety of topics, including how to model 3D objects, creation of a realistic material, the art of camera and lighting techniques, and an introduction to advanced keyframing. In addition to completing several animation projects, students learn about both the history of Animation and the traditional principles involved in making an individual's work look both realistic and believable.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 50	Principles of Animation in Maya	3.0
ANIM 51	Advanced Materials, Lighting and Rendering With Maya	3.0
ANIM 52	Digital Character Animation With Maya	3.0
Total Units		9

Digital Animation Artist 3ds Max Certificate of Career Preparation

State Control Number: N/A

Program Code: DAA3D.CERT

Approved for Federal Financial Aid: No

The Digital Animation Artist certificate is designed to expand an individual's expertise in 3D Animation by requiring additional training in traditional art principles and techniques. Employers many times view an animator who possesses the ability to both draw and more thoroughly understand concepts and practices specific to traditional art painting as more well-rounded and work-ready. By earning the Digital Animation Artist certificate, students will better position themselves for employment opportunities in this fast-paced and competitive field. An Adobe Photoshop course specific to 3D Animation applications is also required to earn a certificate.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		

Code	Title	Units
ANIM 56	Photoshop for Animators	3.0
ANIM 160	3ds Max Fundamentals	3.0
ANIM 260	3ds Max Advanced Modeling and Materials	3.0
ANIM 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
Complete one course from the following:		3.0
ART 101	Survey of Art History	
ART 104	Film As an Art Form	
ART 112	Design I	
ART 113	Design II	
ART 122	Life Drawing I	
ART 124	Anatomy of Life Drawing	
ART 125	Drawing I	
ART 141	Sculpture I	
Total Units		15

Digital Animation Artist Maya Certificate of Career Preparation

State Control Number: N/A

Program Code: DAAMA.CERT

Approved for Federal Financial Aid: No

The Digital Animation Artist - Maya certificate is designed to expand an individual's expertise in 3D Animation by requiring additional training in traditional art principles and techniques. Employers many times view an animator who possesses the ability to both draw and more thoroughly understand concepts and practices specific to traditional art painting as more well-rounded and work-ready. By earning the Digital Animation Artist certificate, students will better position themselves for employment opportunities in this fast-paced and competitive field. An Adobe Photoshop course specific to 3D Animation applications is also required to earn a certificate.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 50	Principles of Animation in Maya	3.0
ANIM 51	Advanced Materials, Lighting and Rendering With Maya	3.0
ANIM 52	Digital Character Animation With Maya	3.0
ANIM 56	Photoshop for Animators	3.0
Complete one course from the following:		3.0
ART 101	Survey of Art History	
ART 104	Film As an Art Form	
ART 112	Design I	
ART 113	Design II	
ART 122	Life Drawing I	
ART 124	Anatomy of Life Drawing	
ART 125	Drawing I	
ART 141	Sculpture I	
Total Units		15

Expanded Animation Technician 3ds Max Certificate of Career Preparation

State Control Number: N/A

Program Code: EAT3DSM.CERT

Approved for Federal Financial Aid: No

This certificate crosses over all the software taught under the CIDG and ANIM programs, any student who achieves this certificate has gone through the program and successfully completed the demo reel project, they have learned to work in a large complex environment and complete assigned tasks on an individual and group level. The student has learned the functions required to work on a large structured project in which their skill sets in a CG environment are tested and judged by peers in the class and the instructor when the project is finalized.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 80	Zbrush Fundamentals	3.0
ANIM 160	3ds Max Fundamentals	3.0
ANIM 260	3ds Max Advanced Modeling and Materials	3.0
ANIM 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
Total Units		15

Expanded Animation Technician Maya Certificate of Career Preparation

State Control Number: N/A

Program Code: EXPANTECMAYA.CERT

Approved for Federal Financial Aid: No

This certificate crosses over all the software taught under the ANIM program, any student who achieves this certificate has gone through the program and successfully completed the demo reel project, they have learned to work in a large complex environment and complete assigned tasks on an individual and group level. The student has learned the functions required to work on a large structured project in which their skill sets in a CG environment are tested and judged by peers in the class and the Instructor when the project is finalized.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 50	Principles of Animation in Maya	3.0
ANIM 51	Advanced Materials, Lighting and Rendering With Maya	3.0
ANIM 52	Digital Character Animation With Maya	3.0
ANIM 53	Advanced Animation/Demo Reels	3.0
ANIM 80	Zbrush Fundamentals	3.0
Total Units		15

Digital Filmmaker Certificate of Career Preparation

State Control Number: N/A

Program Code: DIGFILM.CERT

Approved for Federal Financial Aid: No

The Digital Filmmaker certificate is designed to teach students to look at films as an art form, rather than as entertainment. The courses taken to complete the certificate provide students invites to explore the expressive and communicative nature of film while also examining the process by which films are made. The courses cover topics such as camera operation, lighting, composition, script-writing, storyboarding, audio, editing, compositing, and practical film making techniques. Individual projects will give students the opportunity to hone their personal skillset, while large group and class projects will teach students to work collaboratively, a necessary skill in this demanding industry.

Code	Title	Units
Required Courses		
Complete all of the following with a C or better		
ANIM 74	Digital Video Production	3.0
ART 104	Film As an Art Form	3.0
Total Units		6

3D Animation Courses

ANIM 50 Principles of Animation in Maya (3.0 Units)

Students will learn the basics of 3D modeling in Maya, how to create and apply realistic textures, lighting principles and techniques, camera types and their appropriate usage, and fundamental keyframing procedures.

Other topics to be covered include storyboards, the traditional principles of animation, current industry trends and issues pertaining to rendering output for different mediums (film, video, Internet, etc.) (Formerly MERT 50).

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 51 Advanced Materials, Lighting and Rendering With Maya (3.0 Units)

This course covers advanced material techniques using Hypershade, rendering with Mental Ray and advanced lighting techniques. Students will complete a combination of exercises, individual and group projects. (Formerly MERT 51).

Recommended Preparation: ANIM 50

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 52 Digital Character Animation With Maya (3.0 Units)

This course is an advanced study in digital character animation and feature-length digital media production. This course explores the relationships between; anatomy, motion, weight, and timing through a balanced combination of exercises, individual and group projects. (Formerly MERT 52).

Recommended Preparation: ANIM 50 and ANIM 51 or familiarity with a current 3D application, preferably MAYA.

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 53 Advanced Animation/Demo Reels (3.0 Units)

This course is an indepth look at creating an animation production with a final reel being the goal of the class. The course covers camera techniques, staging, modeling, texturing, character development, story development, plot development, storyboarding, titling, and final production using industry standards as guidelines from start to finish. (Formerly MERT 53). Grade Option.

Prerequisite(s): ANIM 50 or ANIM 160, Minimum grade C

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 56 Photoshop for Animators (3.0 Units)

Students will learn the concepts and procedures required for creating high quality texture maps and imagery for use in 3D computer animation. Topics include basic and advanced editing techniques, managing tone/color, layer management, optimization strategies and the use of filters. Compositing techniques will be addressed in detail. Relevant issues dealing with the pre-production process, and industry trends and analysis will also be discussed. (Formerly MERT 56). Grade Option.

Recommended Preparation: ANIM 160 or ANIM 50

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 65 3ds Max Advanced Effects & Compositing (3.0 Units)

Students will learn advanced concepts and procedures required for creating high quality 3D special effects. Topics will include particle systems, space warps, and reactor. Rendering techniques incorporating depth of field, motion blur and anti-aliasing filters will also be discussed. Alpha channel compositing techniques will be addressed in detail. Students will also explore and analyze issues pertaining to the computer animation industry. (Formerly CIDG 65). Grade Option.

Prerequisite(s): ANIM 160, Minimum grade C

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 74 Digital Video Production (3.0 Units)

This course introduces digital video production techniques. Course topics include the operation of digital camcorders, lighting, sound equipment and post production digital editing suites, and the principles of aesthetics of film and video editing. (Formerly MERT 74). Grade Option.

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 80 Zbrush Fundamentals (3.0 Units)

Students will learn the concepts and procedures required for creating high quality texture maps and Zbrush models for use in 3D computer animation. Topics will include basic and advanced editing techniques with Hard Surface modelling, ZSpheres, detailing models with various brushes and masks, layer management and optimization strategies for high resolution models. Relevant issues dealing with Zbrush models and other 3D packages and industry trends and analysis will also be discussed. (Formerly MERT 80). Grade Option.

Recommended Preparation: ANIM 50 or ANIM 160

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Not transferable

ANIM 160 3ds Max Fundamentals (3.0 Units)

Students will learn the basics of 3D modeling, how to create and apply realistic textures, lighting principles and techniques, camera types and their appropriate usage, and fundamental keyframing procedures. Other topics to be covered include storyboards, the traditional principles of animation, current industry trends and issues pertaining to rendering output for different mediums (film, video, Internet, etc.). (Formerly CIDG 160). Grade Option. CSU

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Transfers to CSU only

ANIM 260 3ds Max Advanced Modeling and Materials (3.0 Units)

Students will learn the more advanced modeling features of 3ds Max. Complex aspects of building materials and textures will be covered in depth. The course will culminate with students being introduced to the video game environment, having the opportunity to create their own game level. The course will prepare students for work in the entertainment, commercial and computer gaming industries. (Formerly CIDG 260). CSU

Prerequisite(s): ANIM 160, Minimum grade C

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Transfers to CSU only

ANIM 261 3ds Max Character Animation and Advanced Keyframing Techniques (3.0 Units)

Students will learn advanced animation techniques including editing keyframes through Track View, animating with controllers and constraints, wiring parameters, and using hierarchies. Character animation will be addressed in depth. Character Studio and BONES will be utilized to build skeletal systems for both characters and creatures. The course will prepare students for work in the entertainment, commercial and computer gaming industries. (Formerly CIDG 261). Grade Option. CSU

Prerequisite(s): ANIM 160, Minimum grade C

Lecture Hours: 36.0; Lab Hours: 54.0

Transfer: Transfers to CSU only

Program Learning Outcomes

Program Learning Outcomes (PLOs) are statements of the kind of learning a program hopes a student will achieve. The PLOs describe the knowledge, skills, problem-solving, communication and values that apply to all certificates and/or degrees within that program.

Upon completion of this program, students should be able to:

1. To discuss the key components of design, process, layout, and function as it relates to the real world.
2. To develop scene aesthetics that emphasizes creativity and storytelling.
3. To create compelling two and three dimensional projects that meet current industry standards.
4. Be proficient in the software's taught in CIDG Animation Department.
5. Show proficiency in a collaborative classroom project.
6. Have a working Demo reel with credits that can be used for employment or to further their education in a 4 year university.
7. Demonstrate how to be more critical viewers of media and its presentation of world culture.
8. Demonstrate how to operate a digital camera.
9. Complete a short film following industry standards.