

AAD 0094 - DIGITAL ANIMATION

Catalog Description

Prerequisite: Completion of AAD 70, AAD 44, or ART 4A with grade of "C" or better

Advisory: Completion of AAD 79 with grade of "C" or better

Hours: 90 (36 lecture, 54 laboratory)

Description: Study of animation structure, concepts, development of storyboard, creation of graphics, use of timeline, and stage. Explores techniques of cell animation, rotoscoping, key framing, camera moves, angles and cuts, lip synch, acquisition, creation and manipulation of sound effects. Projects published for use on the Web, video, film and social media. (CSU)

Course Student Learning Outcomes

- CSLO #1: Apply correct terminology, techniques and processes related to animation in order to create finished projects for various output methods.
- CSLO #2: Prepare time-based animation projects using techniques related to storytelling such as storyboards, character design, script development and sketching.
- CSLO #3: Prepare and assemble graphics, images and sound for use in various types of animations, including frame-by-frame, and interactive projects.

Effective Term

Spring 2021

Course Type

Credit - Degree-applicable

Contact Hours

90

Outside of Class Hours

72

Total Student Learning Hours

162

Course Objectives

Lecture

1. Identify story board processes for an animation project;
2. Describe the impact of character design and development for use in animation projects;
3. Identify movement of elements across the stage using special techniques.
4. Identify basic special effects including animation of blends, size changes, and color cycling in an animation project;
5. Identify realistic movement of characters in an animation sequence;
6. Examine animation sequences with multiple scenes and note techniques for transitioning between scenes;

7. Examine methods for capturing and manipulating sound and place appropriately in relationship to movement in animation sequence;
8. Define the various benefits compressing files to reduce file sizes in animation projects;
9. Critique the effectiveness of projects in class discussion.

Laboratory Objectives:

1. Create a story board for an animation project;
2. Create drawings and imagery for use in animation projects;
3. Create movement of elements across the stage using animation techniques;
4. Create special effects including animation of blends, size changes, and color cycling in an animation project;
5. Create character movement in an animation sequence;
6. Create animation sequences with multiple scenes;
7. Capture and manipulate sound and place appropriately in relationship to movement in animation sequence;
8. Compress files to reduce file sizes in animation projects;
9. Analyze and evaluate in class discussion/critiques the effectiveness of projects.

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- CSU Transferable

Methods of Evaluation

- Projects
 - Example: Create class projects using the methods for Importing Bitmap "Objects", using Traced Edges on "Objects" Creating Objects, Developing a Symbol in at Least Two Layers, using Motion and Shape, and Setting up Commands for Full Screen, Buttons to replay and quit and projector. Rubric Graded. (Course Objective 3)
- Skill Demonstrations
 - Example: Demonstrate use of Animation Structure: Establishment of Objects, Environment, and Situation, Anticipation, Interaction of Objects, Obstacle or Conflict, Resolution, Visual Relationship of Graphics to Each Other, Relationship of Sound to Animation, Sequencing and Timing of Motion, Compositional Placement/Arrangement on Stage, Overall Uniqueness and Creativity. Rubric Graded. (Course Objective 3)

Repeatable

No

Methods of Instruction

- Laboratory
- Lecture/Discussion
- Distance Learning

Lab:

1. The instructor will show the students examples of animated works. The students will then use their unique ideas to inspire an animation project of their own. Students will then create animation sequences

through class projects and are required to evaluate all class projects in terms of the concepts, animation structure, design, image development and animation techniques used. (Laboratory Objective 2)

Lecture:

1. Instructor will describe and demonstrate creation of an animation project. Topics addressed include developing storyboards sequencing actions and placement on the stage; writing scripts; developing animation structure including situation, characters, anticipation, agent of conflict, and resolution; discussion of animation techniques and time-based media concerns, introduction of sound elements, and historical references in creating an original animation. Students are expected to actively participate in the lecture. (Lecture Objective 1)

Distance Learning

1. Instructor will provide information on the impact of character design and development for use in animation projects. A discussion board prompt will be created on the topic. Students will reply to the prompt by researching and identifying a character design that interests them. Students will identify the important components of the design they've chosen. Students will reply to at least two other student posts with additional relevant information and/or a thought-provoking question. (Lecture/Discussion, Objective 2)
2. Instructor will provide a demonstration video of how to create character animation and specific movements. Students will follow an assignment prompt that directs them to generate specific character movements for the character they have created. The assignment outline will present specific learning objectives and requirements. (Laboratory/Activity, Objective 5)

Typical Out of Class Assignments

Reading Assignments

1. Read chapters on building graphics and creating symbols in preparation for first project.
2. Read chapters on importing bitmaps, using trace bitmap, and importing vector images in preparation for project.

Writing, Problem Solving or Performance

Project: "It's In The Bag" In this project you will work more with the graphic tools; use nested symbols; learn to import bitmaps; convert the bitmaps to vector shapes, optimize those shapes; use more Animation Velocity of Symbols; and learn the basics of Shape Animation of raw graphics. The subject of the animation will be some kind of bag/ container, and at least two items to go into the bag. It can be a paper bag, a shopping bag, a backpack, a purse, a briefcase, a suitcase, a golf bag - any kind of "bag" you want. You will create the bag using graphics tools; import bitmaps from "shopping" on the web of one or two items to go into the bag. You will use Trace these Bitmaps and create vector graphics of the items to go into the bag. In a second stage to the project, you will animate the objects you have put into the bag. First, develop your animation structure, create storyboard sheets. Next, follow the detailed instructions for preparing and importing bitmaps and using animations. Incorporate motion along a path, and squash stretch effects learned from the previous project. Add appropriate sound effects. When complete, create a full screen stand-alone player with quit and replay buttons. Assignment: Rotoscoping In this project you will use a movie clip of a walking figure to create an animation. This technique is called "rotoscoping". You will use cel animation to draw on a layer over the video clip. Next, you will learn to optimize the graphics you have drawn.

Then, you will evaluate the movement sequence, select four or five of the walking positions and convert them to Graphic Symbols. Finally, you will learn to place the graphic symbols, swap symbols and how to place them in relationship to the previous position. As in previous projects, you will develop an animation structure, create storyboard panels, use different camera moves, and use tracking and panning techniques. When complete, create a full screen stand-alone player with replay and quit buttons.

Other (Term projects, research papers, portfolios, etc.)

Final project which combines all technical skills, animation concepts and output methods.

Required Materials

- The Animator's Survival Kit
 - Author: Richard Williams
 - Publisher: Faber and Faber
 - Publication Date: 2009
 - Text Edition: 2nd
 - Classic Textbook?: No
 - OER Link:
 - OER:
- The Freelance Manifesto: A Field Guide for the Modern Motion Designer
 - Author: Joey Korenman
 - Publisher: Korenman
 - Publication Date: 2017
 - Text Edition: 1st
 - Classic Textbook?: No
 - OER Link:
 - OER:
- Adobe After Effects CC Classroom in a Book (2017 release)
 - Author: Lisa Fridsma
 - Publisher: Adobe
 - Publication Date: 2018
 - Text Edition: 1st
 - Classic Textbook?: No
 - OER Link:
 - OER:
- Simplified Drawing for Planning Animation
 - Author: Wayne Gilbert
 - Publisher: Anamie Entertainment
 - Publication Date: 2013
 - Text Edition: 2nd
 - Classic Textbook?: No
 - OER Link:
 - OER:

Other materials and-or supplies required of students that contribute to the cost of the course.

Drawing Paper and Notebook