DMD C111: 3D ANIMATION

Item	Value
Curriculum Committee Approval Date	12/09/2022
Top Code	061400 - Digital Media
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

This course teaches foundational animation skills such as 3D modeling, animation, rendering, compositing, visual effects, production, and performance skills. Hands-on training is emphasized using relevant computer software. Enrollment Limitation: DGA C111; students who complete DMD C111 may not enroll in or receive credit for DGA C111. ADVISORY: DGA C116 or DMD C116. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Use 3D software and animation production processes and techniques to produce a "demo reel" that demonstrates a beginning proficiency in the principles of 3D Modeling as pertains to simulation, animation, and multimedia.
2. Identify and apply the authoring tools used for simulation game development, animation, and training mediums.

Course Objectives

- 1. Manipulate the softwares interface, menus, and plugins.
- 2. Build simple animations with given parameters.
- 3. Demonstrate modeling, rendering, animation and cloth motion techniques.
- 4. Add lighting, dynamics, simulations, and effects to files.

Lecture Content

3D Modeling Principles Polygonal Modeling Box Modeling Edge Extrusion Modeling Sub-D Modeling Polygonal Tools Sub-D Tools NURBS Modeling Spline Modeling Surface Modeling Layout and Performance Modeling/ Straight Ahead/Pose to Pose Basic Deformations Design and Critique Peer Review/Revisions Portfolio Character Design Shape/Expression/ Rhythm Clothing Story Boarding Idea/Character Development Animatics/ Kinematics 3-D Animation Tools Dimensional Integration Key Frame Interpolation Rendering Camera/Lights/Mapping Texture/Shading/ Surfaces Sound Character Lip-Syncing Digital Output/File Format Post Production Retouching, Compositing, Color Correction File Formats/ Aspect Ratio

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

A variety of instructional techniques will be employed to encompass different student learning styles. These may include, but are not limited to, demonstrations, lecture, discussion, projects, and small group activities. Instruction will be supplemented, where appropriate, by digital media presentations and resources, guest speakers, and field trips.

Reading Assignments

Students will complete reading assignments assigned from the textbook, supplemental readings, handouts, Internet resources, and any assignments from Coastlines Library.

Writing Assignments

Reports, revisions, discussions and peer review critiques

Out-of-class Assignments

Research design options, weekly projects demonstrating skills acquired.

Demonstration of Critical Thinking

Demonstration of designing 3-D models using the wireframe environment.

Required Writing, Problem Solving, Skills Demonstration

Demonstration of drawing techniques and 3-D animation software

Eligible Disciplines

Graphic arts (desktop publishing): Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Kelly L. Murdock. Autodesk 3ds Max 2021 Complete Reference Guide, 2021 ed. 9781630573348: SDC Publications, 2021

Other Resources

1. Coastline Library 2. Textbook changes annually or biannually. Selected online and OER materials to be provided and distributed by the instructor.