

GD 165: 3D ANIMATION

Proposer:**Name:**

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Effective Term:

Fall 2024

Credit Status:

Credit - Degree Applicable

Subject:

GD - Graphic Design

Course Number:

165

Discipline:

And/Or	(Discipline)
		Graphic Arts	

Catalog Title

3D Animation

Catalog Description

Discover fundamental concepts, tools, and techniques used in the creation of 3-dimensional digital content. Students will gain insight into the world of 3D animation, including modeling, rigging, and rendering. Emphasis is placed on utilizing industry software to practice animation principles, workflows, and creative processes.

Method of Instruction:

Distance Education

Laboratory

Lecture and/or Discussion

Other (Specify)

Course Units/Hours:**Course Units Minimum:**

4

Lecture Hours Minimum (week)

3

Lab Hours Minimum (week)

3

Total Contact Hours Minimum (semester)

105

Total Outside Hours Minimum (semester)

105

Total Student Learning Minimum Hours (semester)

210

Repeatability:

No

Open Entry/Exit:

No

Field Trips:

Not Required

Grade Mode:

Standard Letter

TOP Code:

061440 - * Animation

SAM Code:

B - Advanced Occupational

Course Content

Methods of Assessment:

Essay quizzes or exams
Portfolio Evaluation
Problem solving assignments or activities
Project
Short answer quizzes or exams
Skill demonstrations

Course Topics:

	Course Topics
1	Object animations with simple model creation and rigging
2	Texture/UV Mapping, Lighting and Camera
3	Animation production pipeline, storyboarding and process
4	Interface navigation, techniques, and tool sets in Maya and/or Blender
5	Primitives, Nurbs and Polygon principles
6	Proper file structure and workflow
7	Solving design problems
8	Incorporating feedback and critique

Course Objectives:

	Course Objectives
1	Animate 3-D Models using the versatile tool sets with understanding of industry software.
2	Use principles of animation to generate characters that interact with a 3D environment.
3	Utilize camera, lighting, rigging, and texture techniques to render still scenes and basic character animations.
4	Develop a digital portfolio or "demo reel."

Course Outcomes:

	Course Outcomes
1	Animate objects through time interacting in a 3D environment.
2	Demonstrate a fundamental understanding of industry software applications for 3D modeling and animation.
3	Plan and execute projects through a creative process using design thinking.
4	Communicate proficiency through written analysis and oral presentations.

Assignments:

Assignment Type:	Details
Reading	<p>Readings will be assigned from periodicals as they pertain to the course exercises. Supplementary texts will be provided to complement the primary course text. Below is an excerpt from a sample reading assignment:</p> <p>Animation is an art form created and cultivated over the last century. While drawing, painting, sculpting and photography allow artists to represent shape and form at a single point in time, animation lets artists explore a world in motion. Through animation, new worlds can be imagined. This modern art form evokes emotion through the movement of a sequence of drawings, paintings, photographs or rendered images.</p>
Writing	<p>Writing assignments will be assigned to supplement the course exercises and reinforce key concepts. Below is an example of a typical writing assignment question:</p> <p>Why are hierarchies important to a digital animation project and which tools can you use to establish and modify model hierarchies?</p>
Homework	<p>Assignments will complement OER course texts or periodical readings. Below are sample questions from a typical course chapter assignment:</p> <p>Basic 3D shapes in Maya are called</p> <ul style="list-style-type: none"> A. Shapes B. Curves C. Primitives D. Objects <p>In a skeleton setup, the importance is placed on the</p> <ul style="list-style-type: none"> A. Bones B. Joints C. Keyframes D. Hierarchy
Lab	<p>Create 3-D models and animate them in real time, ultimately using knowledge and information to promote ideas practical to character animation ready for exporting to game engines, web content, and other applications.</p>

Textbooks or other support materials

Resource Type:	Details
Web/Other	Pluralsight.com
Books	<p>Autodesk Maya 2023 Basics Guide, 1st Edition Kelly L. Murdock SDC Publications; 1st edition (September 15, 2022) SBN-10 : 1630575275 ISBN-13 : 978-1630575274</p>
Books	<p>The Complete Guide to Blender Graphics: Computer Modeling and Animation: Volume One; 8th Edition John M. Blain A K Peters/CRC Press; 8th edition (September 19, 2023) ISBN-10 : 1032510609 ISBN-13 : 978-1032510606</p>

Equity Review:

Yes

Transferable to CSU

Yes - Approved

CSU General Education

Transferable to CSU

Other Degree Attributes

Degree Applicable

Not a Basic Skills Course



Materials Fee:

20

Distance Learning Addendum

GD165 DLA Form .pdf

Banner Title:

3D Animation

Course Control Number:

CCC000548963