Course Information Form (CIF)

Course Code: CSC 233

Course Title: 3D Computer Animation IV

Department: Business/Computer Science and Technologies
Effective Date: Summer 2026
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 11.0201
Repeatability: 0

Credit Hours

Catalog Notation: 3-2-4
Credit Hour Distribution:

Lecture: 3	Lab: 2	Clinical: 0	**Total: 4**

General Course Information

Catalog Description

Advanced topics in 3D modeling and texturing for 3D applications including gaming, film, visual effects, virtual and augmented reality, and related disciplines.

General Course Objectives

Equip students with the fundamental knowledge and skills in developing 3D characters in a 3D digital environment for digital media areas including gaming, film, and interactive applications. Become proficient with techniques in standard, professional character 3D animation software packages. Apply cinematic design considerations in 3D character development.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Credit in CSC 189

Methods of Evaluation

8-10 small-scale studies will be given to introduce and develop the student's understanding and proficiency of course concepts and skills. 5-6 large-scale projects will be regularly assigned to apply the concepts introduced in the studies. Project assignments form the basis of the student's portfolio work in 3D computer animation.

Instructional Materials and Additional Supplies

Taught in lab environment with specialized software and hardware. Regular upgrades of software and hardware expected annually.
Students are required to have a USB flash drive.

Course Content

General Learning Outcomes (GLOs)

- Creativity and Innovative Thinking: Students will design, present, and interpret materials, information, and ideas in innovative ways.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Course Introduction	1. Identify course requirements, goals, expectations, and examples of course portfolio work.	1	1	0
UV Mapping Fundamentals	1. Describe and review fundamental techniques of UV mapping process. 2. Apply fundamental techniques of UV mapping process.	2	1	0
UV Mapping Character Props	1. Describe techniques for creating, editing, and mapping UVs for character prop models. 2. Apply techniques for creating, editing, and mapping UVs for character prop models.	6	4	0
UV Mapping Character	1. Describe techniques for creating, editing, and mapping UVs for character body. 2. Apply techniques for creating, editing, and mapping UVs for character body.	6	4	0
Normal Mapping	1. Describe techniques for creating and transferring normal maps between high and low resolution character and props. 2. Apply techniques for creating and transferring normal maps between high and low resolution character and props.	4	2	0
Texture Design	1. Describe techniques for designing and developing image textures for character and props. 2. Apply techniques for designing and developing image textures for character and props.	6	4	0
Real-time Platform Transfer	1. Describe techniques for preparing and transferring character and props into real-time platform. 2. Apply techniques for preparing and transferring character and props into real-time platform.	4	2	0
Real-time Platform Material Design	1. Describe techniques for designing, developing, and applying materials for character and props in real-time platform. 2. Apply techniques for designing, developing, and applying materials for character and props in real-time platform.	6	4	0
Real-time Platform Logic and Programming	1. Describe techniques for designing and programming logic in real-time platform. 2. Apply techniques for designing and programming logic in real-time platform.	6	4	0
Real-time Platform Environment Design	1. Describe techniques for building and importing worlds, environments, and levels in real-time platform. 2. Apply techniques for building and importing worlds, environments, and levels in real-time platform.	4	4	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	30	0