### **CSE 458** Computer Animation

#### **Credits**

5.0 (3 hrs lecture, 2 hours meetings)

#### **Lead Instructor**

Barbara Mones

### **Textbook**

None

### **Course Description**

Introduction to basic principles of computer generated animation. Focus on the modeling and lighting of animated characters. Students from art, CSE, and music team up on projects to be built on commercially-available modeling and lighting packages.

### **Prerequisites**

either CSE 457, ART 380, or MUSIC 403.

### **CE Major Status**

None

## **Course Objectives**

To introduce students to the fundamentals of 3D modeling, shading, lighting, animating and rigging characters for three-dimensional computer generated environments. To understand the complex technical and aesthetic components of animation design.

### **ABET Outcomes**

# **Course Topics**

- Modeling digital objects that one can find reference for in the real world.
- Modeling hard surface and characters for 3D animated digital environments
- Shading objects.
- Lighting concepts from the real world applied to digital 3D environments
- Character Animation Principles
- Character Animation Projects
- Theory and fundamentals of character rigging for computer animation
- learning the basics of the animation pipeline for film production