

# CSE 130 : Game Design III / 3D Animation Techniques

**Credits** 5

Modern 3D games employ many techniques such as motion capture, inverse kinematics and key frame animation to achieve realistic movement for game characters. Learn to set up 3D characters with bones so that they can respond normally to outside events or play back in scripted moves.

**Prerequisites**

[CSE 110](#) and [CSE 120](#)

**Course Outcomes**

- Identify animation techniques available for 3D motion.
- Utilize scripting tools to fine tune and modify animation sequences.
- Demonstrate ability to rig an existing humanoid and non-humanoid mesh.
- Configure idle and walk animations for a model.
- Demonstrate ability to paint meshes using textures and materials.
- Rig facial animation to display common emotions.
- Utilize Unity3D to create character interaction between mesh and objects.
- Create key frame animation sequences.
- Rig armature structures to meshes.
- Utilize proper lighting and materials.
- Import into custom made meshes into Unity3D.
- Create character interaction with world objects using collision in Unity3D.