

# CSE 120 : Game Design II / 3D Modeling

**Credits** 5

Learn to take your sketches and turn them into 3D objects. This class teaches you to use your concept art to create a mesh, paint the mesh with textures, and adjust 3D lighting and material effects in Blender and GIMP.

**Course Outcomes**

- Identify fundamental differences between 2D and 3D design.
- Learn to use 3D modeling software to create objects for 3D worlds.
- Use proper composition techniques in 3D scenes.
- Demonstrate ability to use mesh sculpting tools.
- Utilize reference material to create models.
- Work with bitmaps and shading techniques to create materials.
- Learn about 3D rendering techniques and the pros/cons of each.
- Understand 3D acceleration and how video cards reduce processing load on the CPU.
- Import 3D models into virtual worlds.
- Use pixel shaders and lighting techniques to add realism.
- Create particle systems to simulate hair.
- Import models into Unity3D.