

In 3D Game Design, students learn the basics of 3D video game design including models, textures, volumes, lighting, and more. Students will create their own amazing 3D world from start to finish.

This is a project-based course where students take on the role of creator. In addition to technical skills, students develop the creative, critical thinking, and problem-solving skills necessary to build amazing projects from start to finish. Throughout the course, students will use a 3D game design program called OWL Game Creator, which mirrors professional tools and allows students to quickly create complex 3D games. If they need any help along the way with their coursework or projects, students can reach out to experts for support by e-mail, chat, or phone.

By the end of this course, students will have built an original, professional-grade project and developed the knowledge, skills, and confidence to become creators on their own, in further study, or professionally.

Course Materials

All required materials are included with this course.

Length: One semester

UNIT 1: WELCOME TO 3D GAME DESIGN

- Lesson 1: The Basics
- Lesson 2: Moving in Edit Mode
- Lesson 3: Wrap Up

UNIT 2: MODELING BASICS

- Lesson 1: Modeling
- Lesson 2: Building Zone 1
- Lesson 3: Building Zone 2
- Lesson 4: Wrap Up

UNIT 3: ADDING TEXTURES

- Lesson 1: Textures
- Lesson 2: Texture All Faces
- Lesson 3: Wrap Up

UNIT 4: ADVANCED MODELING

- Lesson 1: Changing the Grid Size
- Lesson 2: Vertices
- Lesson 3: Height Map Mode
- Lesson 4: Wrap Up

UNIT 5: USING MATERIALS

- Lesson 1: Lava, Water, Glass
- Lesson 2: Clips and No Clips
- Lesson 3: Respawn and Alpha
- Lesson 4: Wrap Up

UNIT 6: MAP MODELS

- Lesson 1: Models
- Lesson 2: Clutter

- Lesson 3: Wrap Up

UNIT 7: NEW ENTITIES

- Lesson 1: Jump pads
- Lesson 2: Sound Effects
- Lesson 3: Checkpoints and Teleports
- Lesson 4: Wrap Up

UNIT 8: SECOND LEVEL

- Lesson 1: Building Level 2
- Lesson 2: Jump Boots
- Lesson 3: New Pickups
- Lesson 4: Wrap Up

UNIT 9: SPECIAL EFFECTS

- Lesson 1: Skyboxes
- Lesson 2: Prefab Particles
- Lesson 3: Advanced Particles
- Lesson 4: Wrap Up

UNIT 10: ENTER THE ENEMIES

- Lesson 1: Building Level 3
- Lesson 2: Enemies
- Lesson 3: Moving Platforms
- Lesson 4: The Boss
- Lesson 5: Wrap Up

UNIT 11: PAINTING WITH LIGHT

- Lesson 1: Indoor Lighting
- Lesson 2: Outdoor Lighting
- Lesson 3: Wrap Up

UNIT 12: FINISHING TOUCHES

- Lesson 1: Standards of Excellence
- Lesson 2: Upload for Review

UNIT 13: ADVANCED TOPICS

- Lesson 1: Advanced Checkpoints
- Lesson 2: New Pickups and Enemies
- Lesson 3: Boxes & World Properties