

Blender Software Course Syllabus

Week 1-2: Introduction to 3D Computer Graphics and Blender Interface

- Overview of 3D Computer Graphics
- Introduction to Blender Interface
- Navigating the 3D Viewport
- Basic Tools and Transformations
- Creating and Managing Projects

Week 3-4: Modeling in Blender

- Primitive Shapes and Mesh Editing
- Extrusion, Beveling, and Loop Cuts
- Introduction to Sculpting
- Subdivision Surface Modeling

Week 5-6: UV Mapping and Texturing

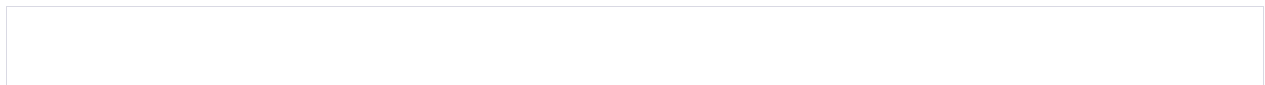
- Understanding UV Unwrapping
- Texture Painting in Blender
- Applying Materials and Shaders
- Introduction to Procedural Textures

Week 7-8: Lighting and Rendering in Blender

- Types of Lights in Blender
- Adjusting Light Properties
- Introduction to Cycles Renderer
- Render Settings and Output Options

Week 9-10: Animation Basics in Blender

- Keyframe Animation
- Rigging Basics
- Armature and Bone Systems
- Basic Character Animation Techniques



Week 11-12: Advanced Animation and Dynamics

- Shape Keys and Morphing
- Cloth Simulation
- Particle Systems
- Fluid Simulation

Week 13-14: Sculpting and Advanced Modeling

- Advanced Sculpting Techniques
- Boolean Operations
- Hard Surface Modeling
- Retopology

Week 15-16: Compositing and Post-Processing

- Introduction to Blender Compositor
- Node-Based Compositing
- Video Editing in Blender
- Color Correction and Effects

Week 17-18: Python Scripting in Blender

- Introduction to Python Scripting
- Scripting for Automation
- Custom Tools and Add-ons

Week 19-20: Final Projects and Review

- Individual or Group Projects
- Presentation and Critique
- Final Q&A and Review

Assessment Criteria:

- Weekly Assignments
- Midterm Project
- Final Project
- Class Participation
- Final Exam (if applicable)

