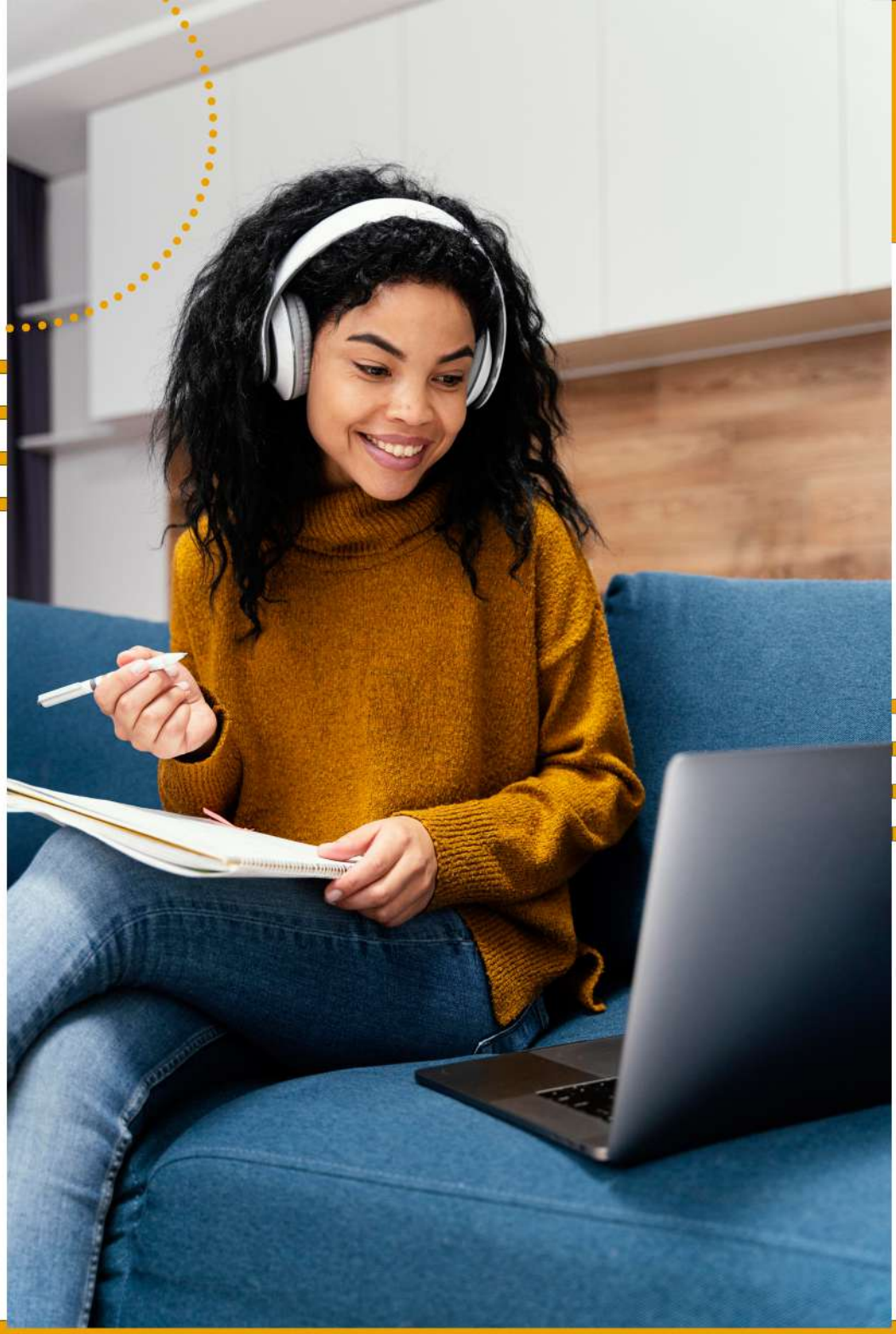
Zetlan Technologies



Zetlan Technologies

Blender 3D

e-Learning Course

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COURSE MODULES

Module 1: Introduction to Blender

- Overview of Blender & its capabilities
- Installing and setting up Blender
- Understanding the Blender interface
- Navigating the 3D viewport
- Basic operations (move, rotate, scale)

Module 2: Basic 3D Modeling

- Introduction to mesh objects
- Working with vertices, edges, and faces
- Modifiers (Subdivision, Boolean, Mirror)
- Extrude, Inset, Bevel, Loop Cuts
- Creating simple 3D objects

Module 3: Advanced 3D Modeling

- Hard surface modeling techniques
- Organic modeling basics (characters, creatures)
- Retopology workflow
- Sculpting tools & brushes
- Optimizing mesh topology

Module 4: Materials & Texturing

- Understanding PBR (Physically Based Rendering)
- UV mapping and unwrapping
- Creating materials in the Shader Editor
- Using textures & image mapping
- Procedural texturing with nodes

Module 5: Lighting & Rendering

- Different types of lights (Point, Sun, Spot, Area)
- HDRI environments for realistic lighting
- Introduction to Cycles & Eevee render engines
- Render settings and optimization
- Compositing basics in Blender

Module 6: Animation & Rigging

- Introduction to keyframe animation
- Timeline & Dope Sheet
- Using the Graph Editor for smooth animations
- Basic character rigging (Armatures, Bones)
- Walk cycle animation

Module 7: Physics & Simulations

- Rigid body & soft body dynamics
- Cloth & hair simulation
- Fluid & smoke simulation
- Particle systems (fire, rain, explosions)

Module 8: Camera & Cinematic Techniques

- Camera settings & animation
- Depth of field & motion blur
- Tracking & following objects
- Cinematic storytelling with Blender

Module 9: Special Effects & Advanced Techniques

- Grease Pencil for 2D animation
- Geometry Nodes for procedural modeling
- Creating VFX (Explosions, Glowing effects)
- Motion tracking for integrating 3D with real footage