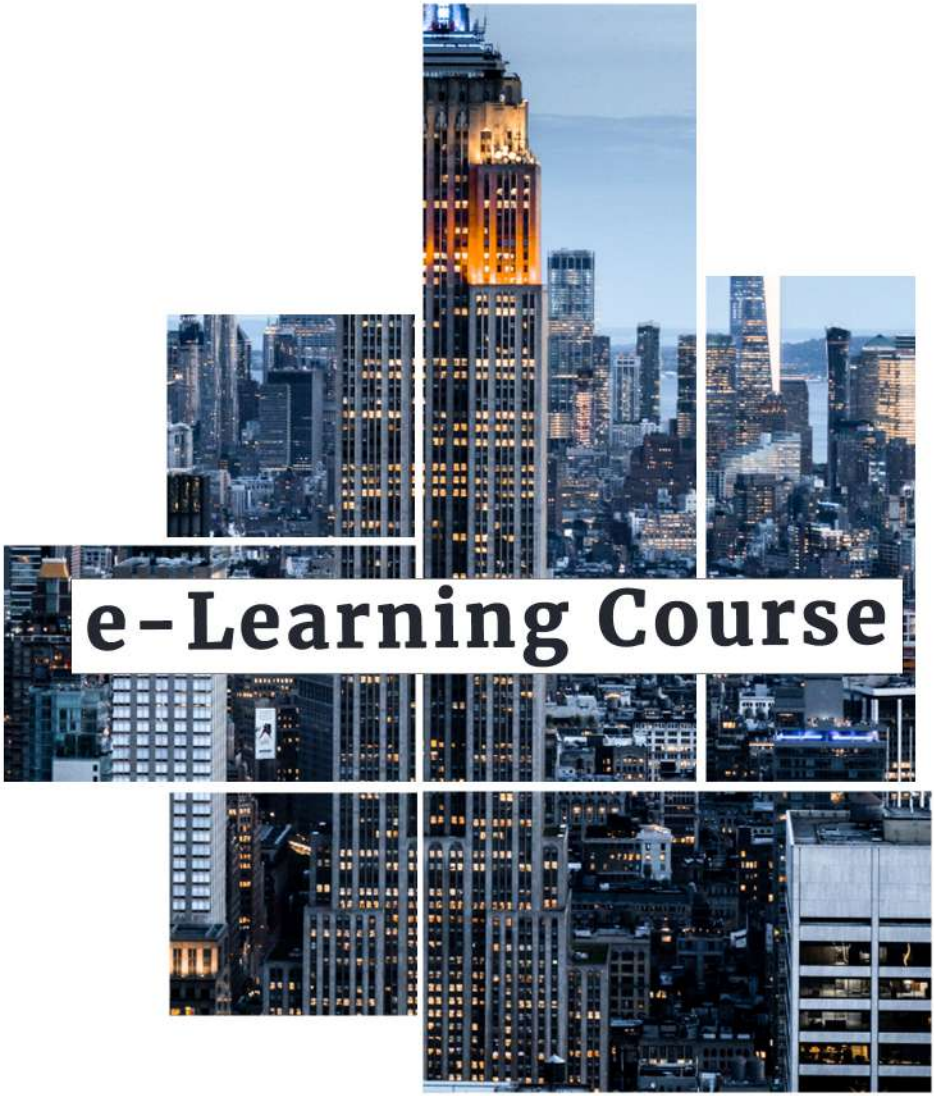
RHINOCEROS 3D (RHINO 3D)

Zetlan Technologies



Help Desk: +91 8680961847 **www.zetlantech.com**

ZETLAN TECHNOLOGIES

COURSE MODULES

Module 1: Introduction to Rhino 3D

- Overview of Rhino 3D: Features and Capabilities
- Understanding NURBS, Meshes, and SubD Modeling
- Interface and Navigation
  - Viewports & Display Modes
  - Toolbars, Panels, and Commands
- Customizing the Workspace

Module 2: Basic 2D Drawing & Editing

- Creating and Editing Curves
  - Lines, Polylines, Circles, Arcs, and Splines
  - Control Points and Curve Degree
- Transformations
  - Move, Rotate, Scale, Mirror
  - Array and Aligning Objects
- Object Snaps and Smart Tracking
- Layers and Object Properties

Module 3: 3D Modeling Basics

- Creating 3D Primitives (Boxes, Spheres, Cones, etc.)
- Extrusions, Lofting, and Revolve Commands
- Boolean Operations (Union, Difference, Intersection)
- Fillet, Chamfer, and Blending Surfaces

Module 4: Advanced Surface and Solid Modeling

- Understanding and Editing NURBS Surfaces
- Surface Tools (Sweep1, Sweep2, Loft, Patch, Network Surface)
- Blending and Trimming Surfaces
- Shelling and Offsetting Surfaces
- SubD Modeling Introduction

Module 5: Precision Modeling & CAD Integration

- Working with Units and Dimensions
- Measuring Tools & Annotations
- Importing & Exporting CAD Files (DXF, DWG, STEP, etc.)
- Creating Sections and 2D Drawings from 3D Models

Module 6: Grasshopper (Parametric Design)

- Introduction to Grasshopper
- Basic Components and Workflow
- Creating Parametric Models
- Data Trees and List Management
- Grasshopper Plugins and Extensions

Module 7: Rendering & Visualization

- Applying Materials and Textures
- Lighting and Environment Setup
- Using Rhino Render and External Render Engines
- Rendering Settings and Techniques
- Post-Processing in Photoshop