

SketchUp Course Contents

Course Duration: One Month

1. Introduction to SketchUp

- What is SketchUp? Overview and applications
- Installing and setting up SketchUp
- SketchUp interface overview: Toolbars, panels, and workspace
- Navigation basics: Orbit, Pan, Zoom

2. Basic Drawing and Modeling

- Drawing simple shapes: Lines, rectangles, circles, polygons
- Creating and editing 3D shapes (push/pull tool)
- Working with groups and components
- Using inference for precise modeling (axis, snapping)

3. Modifying Models

- Moving, rotating, and scaling objects
- Using the offset and follow-me tools
- Creating holes and cutouts
- Working with layers/tags to organize models

4. Materials and Textures

- Applying colors and materials
- Importing custom textures
- Editing materials (scaling, rotation)
- Using styles and shadows for realistic visualization

5. Advanced Modeling Techniques

- Creating complex shapes with solid tools (union, subtract, intersect)
- Using the sandbox tools for terrain modeling

- Creating and managing dynamic components
- Importing and using external models (3D Warehouse)

6. Layout and Documentation (Using SketchUp Layout)

- Creating scenes and views
- Exporting 2D drawings and plans
- Adding dimensions and annotations
- Creating presentations and export options (PDF, images)

7. Extensions and Plugins

- Installing and managing extensions
- Overview of popular plugins (e.g., V-Ray, Artisan, Profile Builder)
- Automating repetitive tasks with plugins

8. Rendering and Visualization

- Introduction to rendering basics
- Setting up lighting and cameras
- Using native SketchUp rendering or third-party tools
- Exporting high-quality renders and walkthroughs

9. Tips, Tricks, and Best Practices

- Efficient workflow techniques
- Troubleshooting common issues
- Best practices for modeling accuracy and file management