SketchUp All-In-One

Overview

SketchUp All-in-One allows the student to visualize spaces in three dimensions is critical to the success of the design of architectural spaces. The interplay of light, colour, space and form make exciting spaces function successfully. Traditional methods for exploring these issues are very labour intensive. Use of computer software has enabled quicker (and sometimes more accurate) study models to be generated, explore and iterate more times in the time design time available to you. On day 2 and 3 the course goes beyond the basics to explore the complex features and tools that design professionals use. You'll get numerous step-by-step tutorials for solving common (and not so common) design problems, with detailed colour graphics to guide your way, and discussions that explain additional ways to complete a task.

Prerequisites

It is **recommended** that delegates have a working knowledge of one or more of the following:

- Attended a Introduction to Technical Drawing OR have experience with draughting, design, or engineering principles.
- Comper Literacy Skills
- Understanding and Reading of Technical Drawings

Course Outline

Introduction

The Basics

- Opening SketchUp
- SketchUp Screen
- Toolbars
- Viewing Tools
- Shortcut Keys
- Drawing Tools

- Manipulation Tools
- Displaying and Smoothing Edges

Intersect Faces and Follow Me

- Follow Me
- Intersect Faces
- Combining Follow Me and Intersect Faces

Making Multiple Copies

- Basic Move and Copy
- Internal Arrays
- Non-Orthogonal Copies
- Multiple Rotated Copies

Working with Roofs (Using Constraints)

- Using Offset for Roofs
- Simple Roofs and Dormers
- Resolving Roofs
- Overhanging Roofs

Miscellaneous Basic Exercises

- Domed Apse
- Smoothing Faces and Rotate-Copied Curved Objects
- Triangulation
- Curvy Things

Groups and Components

- Components Versus Groups
- Groups
- Components

Painting, Materials and Textures

- Applying Materials
- Editing Materials
- Using Images as Textures
- Material Collections
- Material Translucency
- Materials of Groups and Components
- Wrapping Images

Adding Text and Dimensions

- Text

- Dimensions
- 3D Text

Using Exact Dimensions

- Creating Exact Geometry
- Entity Info
- Exact Moving and Copying
- Exact Rotated Copies
- Symmetry
- Measuring Length and Area
- Scaling in 3D

SketchUp, Google Earth and the 3D Warehouse

- Placing a Model in Google Earth
- 3D Warehouse

Extensions (Plugins)

- Extension Warehouse
- Installing Other Extensions
- Updating, Uninstalling and Disabling Extensions
- Other Popular Extensions

Program Settings

- User Interface Windows – PC
- User Interface Windows – Mac
- Model Display
- Model Info
- Preferences
- Preferences > Workspace
- Toolbars / Tool Palettes

Introduction to LayOut

- First LayOut Page
- Second LayOut Page
- Changing the SketchUp Model
- Showing the Presentation
- Exporting the Presentation
- Document Setup and Preferences

SketchUp Setup, LayOut Viewports

- Cover Page
- Creating SketchUp Layers and Scenes
- First Inside Page

- Second Inside Page
- Third (and Last) Inside Page
- Changing the Cover Page

Templates: Title Blocks, Pages and Layers

- Exploring an Existing Template
- Creating a New Template
- Creating a Custom-Sized Template
- Creating a Set of Custom Templates
- Using Templates to Set Default Tools Styles
- Using Layers and Pages for Working Drawings
- Using Templates for Streamlined Workflow

Rendering SketchUp Views

- Modifying and Tracing a View
- Vector vs. Raster vs. Hybrid Rendering

Clipping Masks and Clipping Planes

- Clipping an Image
- Clipping a SketchUp Model View
- Cutaways and Highlights
- Clipping Planes

Labels, Dimensions and Smart Labels

- Basic Labels
- Dimensions in 3D
- Smart Labels

Patterns and Hatching

- Intro to Patterns
- Using Patterns in SketchUp Model Views
- “Fake” Hatching in SketchUp

Scrapbooks and Shapes

- Intro to Scrapbooks
- Scrapbooks and Styles
- Using Scrapbooks for Clipping Shapes (or Any Shapes)
- Complex Shapes