

# Mastering 3D Using SketchUp, Intermediate Training

## Course Objectives

Visualizing spaces in three dimensions is critical to the success of the design of architectural spaces. The interplay of light, color, space and form make exciting spaces function successfully. Traditional methods for exploring these issues are very labor intensive. Use of computer software has enabled quicker (and sometimes more accurate) study models to be generated and explored.

Successful integration of modeling software within an architectural practice hinges on how well the computer information can be used, not only inside the computer (to other software packages), but also outside the computer to communicate to clients and review agencies. The output from your SketchUp computer models may be rendered in many different ways; from straight computer printouts, to raster images for retouching with photo editing software, to vector polygon graphics reworked with illustration software, to producing accurate perspective underlays for developing hand renderings.

SketchUp enables you to draw using a familiar pencil and paper paradigm in a software context. The Mastering 3D Using Sketchup: Intermediate Training course provides students with an excellent choice for learning to use SketchUp to build up a three dimensional model from surfaces defined by the edges that are drawn.. This course is intended for students with basic experience with SketchUp, and who want to create efficient 3 dimensional models using SketchUp.

### To succeed fully in this course, students should already be able to:

Define fundamental geometrical terms, including polygon, parallel, perpendicular, axes, arc, and array.

Define 3 dimensional drawing terms, including rendering, field of view, and point of view.

Demonstrate mouse skills, including double-clicking, drag, single-clicking, and context-clicking (right-clicking).

Demonstrate proficient use of the line (pencil), move, erase, orbit, zoom, and select tools in SketchUp.

### Upon completion of this course, you should be able to:

Demonstrate stickiness in the model

Use Groups and Components to isolate geometry

- Know the difference between a group and a component
- Create a component
- Demonstrate component behavior and how to edit a component

Create component nesting for efficient modeling

Demonstrate the effect of scaling on similar components

Understand the Component browser

Browse for and download components for [Google 3D Warehouse](#)

Combine components to create a model in [Google Earth](#)

- Locate a site in Google Earth
- Import the site to SketchUp
- Insert a component from a file

Model from a Photograph

- Photomatch
- Texture Tweaker

Understand the Materials browser

Use the Follow-me tool

Swap (reload) components in a model

Work with SketchUp Styles

- Apply
- Edit/Create
- Mix

Create a presentation with the LayOut tools