

Mastering 3D Using SketchUp, Essentials II 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: Essentials II 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

Table of Contents:

Course Objectives	2
Working With Stickiness In Your Model	3
Using Component Nesting For Efficient Modeling	5
Effect Of Scaling On Similar Components	7
Using Groups And Components To Isolate Geometry	8
Component Browser	10
Google 3D Warehouse - Getting Components	10
Combining Components To Create A Model In Google Earth	11
Google 3D Warehouse - Sharing Your Model	12
Working With Photographs	13
Using The Follow Me Tool	16
Working With The Materials Browser	17
Entouraging With The Google 3D Warehouse	19
Styling Your Model	21