

Mastering 3D Using SketchUp, Essentials I 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, explore and iterate more times in the time design time available to you.

SketchUp enables you to draw using a familiar pencil and paper paradigm in a software context. The Mastering 3D Using SketchUp: Basic Training course provides students with an excellent choice for beginning to learn to use SketchUp. This course is intended for students with little or no 3 dimensional drawing or SketchUp experience, but who want to start to create 3 dimensional models using SketchUp.

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

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

(This is not a course in basic computing skills and some comfort with changing tools or functions by clicking on icons and manipulating the mouse is required)

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

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

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

- Create 2 dimensional geometry (in a 3 dimensional or 3D environment)
- Understanding “inferencing” as a basis for drawing in SketchUp
- Using the Measurements Box
- Create surfaces from lines
- Create surfaces from circles
- Generate surfaces from polygons
- Generate surfaces from arcs
- Create surfaces from freehand curves
- Demonstrate stickiness of geometry
- Create 3 dimensional geometry
- View a model in 3D
- Create surfaces from lines in 3D
- Demonstrate stickiness of geometry in 3D
- Create geometry with the push-pull tool
- Move entities to manipulate geometry
- Maintain coplanar geometry
- Maintain Coplanar geometry
- Connect and generate forms
- Lock an inference
- Generate forms quickly
- Restore a surface
- Create a model, step-by-step
- Mirror a model
- Create an array
- Apply Materials
- Create 3D Text
- Import component models from [Google 3D Warehouse](#)
- Alter a model using built-in Styles

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