

# AutoCAD - 3D Basics



Proficiency with the topics covered in the [AutoCAD – The Basics course](#) and [AutoCAD – Beyond the Basics](#) courses are necessary as this workshop utilizes all the fundamental AutoCAD skills to develop 3D models. Participants learn to build and edit solid models as well as managing views and creating multiview drawings and rendering scenes.

Topics for this 3 day course include:

## 3D Foundations

- Why use 3D?
- Introduction to the 3D Modeling Workspace
- Basic 3D Viewing Tools
- 3D Navigation Tools
- Introduction to the User Coordinate System

## Simple Solids

- Working with Solid Primitives
- Solid Primitive Types
- Working with Composite Solids
- Working with Mesh Models

## Creating Solids & Surfaces from 2D Objects

- Complex 3D Geometry
- Extruded Solids and Surfaces
- Swept Solids and Surfaces
- Revolved Solids and Surfaces
- Lofted Solids and Surfaces

## Working with the User Coordinate System

- UCS Basics
- The UCS X, Y, and Z Commands
- Saving a UCS by Name

## Modifying in 3D Space

- 3D Gizmo Tools
- Aligning Objects in 3D Space
- 3D Modify Commands

## Advanced Solid Editing

- Editing Components of Solids
- Editing Faces of Solids
- Fillets and Chamfers on Solids

## Additional Editing Tools

- Creating a Shell
- Imprinting edges on a Solid
- Slicing A Solid along a Plane
- Interference Checking

## Working Drawings from 3D Models

- Creating Multiple Viewports
- 2D Views from 3D Solids
- Automatic Model Documentation

## Refining the View

- Working with Sections
- Working with Cameras
- Creating Visual Styles
- Working with Materials
- Specifying Light Sources
- Rendering Concepts

Topics and duration may be modified by the instructor based on skill level and knowledge of the participants.