



Overview

AutoCAD® 3D Drawing and Modeling introduces students who are proficient with the 2D commands in the AutoCAD® software to the concepts and methods of 3D modeling. The training course provides a thorough grounding in the fundamentals of 3D and explores the main features of the advanced 3D Modeling workspace in the AutoCAD software.



Duration

3 Days (08:30 – 16:00)



Pre-requisites

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

- [AutoCAD Advanced](#) (Click for More)



Course Outline

Advanced Blocks and Attributes

- DynamicBlock - Conference Table Set
- Electrical Attribute Project Mixing Amplifier
- Architectural Attribute Project Door Schedule

Output and Publishing

- Sharing drawings electronically with other AutoCAD users
- View and create markups using Autodesk Design Review
- View markups made to DWF files in the associated DWG file
- Batch plot electronic and paper drawing sets

Collaboration Tools

- Create a single, compressed, transmittal file that includes all associated files
- Create and save transmittal setups with specific properties to be reused
- Work with Hyperlinks in drawings for ease of accessing information

Cloud Collaboration and Model Integration

- Connecting to the Cloud (A360)
- Uploading and Sharing files in the Cloud
- Attaching Navisworks Models
- Attach models from BIM 360 Glue

3D Essentials

- The difference between 2D drawings and 3D drawings
- Introduction to 3D Modeling Workspace
- Basic 3D Viewing and Orbiting Tools
- Using Visual Styles
- 3D Navigation Tools



- The User Coordinate System

Basic Solids

- Working with SolidPrimitives
- Types of Solid Primitives
- Creating Composite Solids
- Working with Mesh Models

User Coordinate System

- Move the UCS to a new location in a 3D mode
- Change the UCS display setting
- Rotate and Move the UCS to different planes
- Change the origin and alignment of the UCS using the grips
- Define, save, and reuse the UCS in a drawing

3D Solids and Surfaces

- Extrude 2D linework to create 3D solids
- Create 3D solid objects using 2D elements
- Revolve a Profile
- The Loft Tool
- Creating a Sweep Profile
- Basic Solid and Surface Editing
- Create and Edit a NURBS Surface

3D Editing

- Use the Shell tool to hollow out a solid
- Imprint 2D objects onto the faces of 3D solids
- Slice a solid to display the interior
- Compare solids to display overlapping volume areas
- Use the PlanerSurface, Convert to Surface and Explode commands
- Create Solids from circles or polylines

3D Visualisation

- Create new styles in the Visual Styles Manager
- Attach materials to objects using the Material Browser
- Specify light sources and cast shadows for realistic views
- Create presentation quality 3D rendered images

Drawings from 3D Models

- Visualise the 3D model in multiple 3D viewports
- Create a wireframe model and hidden line views of 3D objects
- Create a flattened view of 3D solids projected onto the XY plane using Flatshot
- Import different types of 3D models directly into Model Space
- Automatically generate intelligent documentation