



AutoCAD 2009

3D Modeling Outline

Pre-requisites: The student should be proficient working with 2D objects in AutoCAD and be at the advanced level.

Training Course Objectives

The primary objective of this courseware is to teach the student powerful tools and techniques for creating and editing 3D models with AutoCAD. The following key topic areas will be covered:

- **Getting Started in 3D (Basic Concepts)**
 - Foundations
 - Why Use 3D?
 - Introduction to the 3D Workspace
 - 3D Navigation
 - Introduction to the User Coordinate System
 - Creating Simple Solids
 - Working with Solid Primitives
 - Working with Composite Solids
 - Creating Models from Cross Sections

- **Solid Modeling**
 - Creating Solids & Surfaces from 2D Objects
 - Complex 3D Geometry
 - Extruded Solids and Surfaces
 - Swept Solids & Surfaces
 - Revolved Solids & Surfaces
 - Lofted Solids & Surfaces
 - Tools for Modifying 3D Objects
 - Moving & Rotating in 3D Space

- **Editing Models (Objects)**

- Editing Components of Solids
- Aligning Objects
- Mirroring and Arraying Objects in 3D
- Fillets and Chamfers on Solids
- Slicing a Solid along a Plane

- **Converting and Advanced Editing Solids**

- Converting 3D Elements
- Adding thickness to 2D Objects
- Converting Objects to Surfaces
- Converting Objects to Solids
- Advanced Solid Editing
- Using the SOLIDEDIT Command
- Offsetting and Extruding Faces
- Moving and Rotating Faces
- Tapering a Face
- Creating a Shell
- Removing Faces

- **Visualizing the 3D Modeling**

- Refining the View
- Managing Views in 3D
- Working with Sections
- Working with Cameras
- Walking and Flying Through Models
- Realistic Views
- Creating Visual Styles
- Working with Materials
- Adding Lights and Shadows
- Rendering Concepts