AutoCAD 3D Training

2-day class

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

- **3D Foundations**
  - 3D Modeling Workspace
  - Basic 3D Viewing & Navigation Tools
  - The User Coordinate System
  - Visual Styles
  - Dynamic UCS

- **Simple Solids**
  - Modify Existing Solid Primitives
  - Creating Solid Primitives & Polysolids
  - Combining Two or More Solids into One
  - Creating Mesh Models

- **Working with the User Coordinate System**
  - UCS Basics
  - UCS X, Y, and Z Commands
  - UCS Multifunctional Grips
  - Saving a UCS by Name & Reusing

- **Creating Solids & Surfaces from 2D Objects**
  - Creating Solids/Surfaces from 2D Objects
  - Extruding Solids and Surfaces
  - Swept Solids and Surfaces
  - Revolved Solids and Surfaces
  - Lofted Solids and Surfaces
  - NURBS Surfaces

- **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

- **Additional Editing Tools**
  - Creating a Shell
  - Imprinting Edges of Solids
  - Slicing a Solid along a Plane
  - Comparing Solids for Overlaps
  - Converting Objects to Surfaces
  - Converting Objects to Solids

- **Refining the View**
  - Working with Sections & Cameras
  - Managing Views in 3D
  - Animating with ShowMotion
  - Creating ShowMotion Shots
  - Creating Animations

- **Point Clouds**
  - Attach & Manage Point Clouds

- **Visualization**
  - Creating Visual Styles
  - Working with Materials
  - Specifying Light Sources
  - Rendering Concepts

- **Working Drawings from 3D Models**
  - Creating Viewports for Layouts
  - Creating Hidden Line Views
  - Creating Flattened Views in 2D
  - 3D Model Import
  - Automatic Model Documentation
  - Set Up a Drawing for Printing in 3D