

Autodesk AutoCAD 3D Training Course

Course Overview

Course Length: 16-Hours

- 16-Hours – 8 x 2-hour training sessions
- Remote training over MS Teams
- Sessions are recorded and download links for each session are provide for future use
- Training for up to 1-3 People
- Sessions can start within 7 days upon ordering
- Flexible sessions (i.e. consecutive or Monday, Wednesday, Friday, etc.)
- Courses are private and topics can be customised to suit
- Includes Certificate of Completion

This AutoCAD 3D course provides a structured pathway from essential 3D concepts through to advanced modelling, visualisation, and documentation techniques. It is suited to users who already know the AutoCAD interface and want to expand their skills into creating and managing 3D design workflows.

The AutoCAD 3D Training Course is designed to help users transition from 2D drafting into practical 3D modelling workflows using AutoCAD. It introduces the core tools and concepts used to create, edit, visualise, and document 3D models with confidence.

This hands-on course focuses on building solid modelling skills through guided exercises and real-world workflows. Participants will learn how to work with solids, surfaces, meshes, the User Coordinate System (UCS), and 3D viewing tools while developing efficient modelling and editing techniques.

By the end of the course, learners will be able to create complex 3D geometry, refine and present models with visual styles and rendering tools, and generate working drawings and documentation directly from 3D designs.

Topics Covered

This course covers the essential tools and workflows needed to create and manage 3D models in AutoCAD. Participants will build skills in modelling with solids, surfaces, and meshes, controlling orientation with the UCS, refining model presentation, and producing documentation from completed designs.

- 3D foundations, viewing, and navigation tools
- Working with solid, surface, and mesh models
- Using and managing the User Coordinate System (UCS)
- Creating 3D geometry from 2D profiles
- Modifying and editing models in 3D space
- Refining views with sections, cameras, and animations
- Visual styles, materials, lighting, and rendering concepts

- Creating 2D drawings and model documentation from 3D designs

Prerequisites

Participants should have a good working knowledge of AutoCAD 2D commands and general drafting workflows before attending this course. Prior experience creating and editing drawings in AutoCAD is recommended so learners can focus on developing 3D modelling, visualisation, and documentation skills during the training.

Training Guide Contents

Chapter 1: 3D Foundations

- Why Use 3D?
- Introduction to the 3D Modeling Workspace
- Basic 3D Viewing Tools
- 3D Navigation Tools
- Introduction to the User Coordinate System (UCS)

Chapter 2: Simple Solids

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

Chapter 3: Working with the User Coordinate System

- UCS Basics
- UCS X, Y, and Z Commands
- UCS Multi-functional Grips
- Saving a UCS by Name

Chapter 4: Creating Solids and Surfaces from 2D Objects

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

Chapter 5: Modifying in 3D Space

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

Chapter 6: Advanced Solid Editing

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

Chapter 7: Additional Editing Tools

- Creating a Shell
- Imprinting Edges of Solids
- Slicing a Solid along a Plane
- Interference Checking
- Converting Objects to Surfaces
- Converting Objects to Solids

Chapter 8: Refining the View

- Working with Sections
- Working with Cameras
- Managing Views in 3D
- Animating with ShowMotion
- Creating ShowMotion Shots
- Creating Animations

Chapter 9: Point Clouds

- Point Clouds

Chapter 10: Visualization

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

Chapter 11: Working Drawings from 3D Models

- Creating Multiple Viewports
- 2D Views from 3D Solids
- Creating Technical Drawings with Flatshot
- 3D Model Import
- Automatic Model Documentation
- 3D Printing