

AUTODESK AUTOCAD 3D: DRAWING AND MODELING



CSG Training Centre | Authorized Autodesk Training Centre | Certipoint Authorized Testing Centre

FOR WHOM

Draftsmen, Engineers, Architects, Designers, Advertisers, AutoCAD users.

PRE-REQUISITION

Autodesk AutoCAD Fundamentals 2019 or equivalent.
Working knowledge of Windows Operating Systems.
Working knowledge of design/ drafting procedures and terminology (recommended).

DURATION | VERSION

3 DAY(S), Version 2022

COURSE OBJECTIVES

The AutoCAD® 2022: 3D Drawing and Modeling course introduces users, who are proficient with the 2D commands in the AutoCAD® software, to the concepts and methods of 3D modeling. The 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.

COURSE TOPICS

3D Foundations

1. Why use 3D
2. Introduction to the 3D Modeling Workspace
3. Basic 3D Viewing Tools
4. 3D Navigation Tools
5. Introduction to the User Coordinate System (UCS)

Simple Solids

1. Working with Solid Primitives
2. Solid Primitive Types
3. Working with Composite Solids
4. Working with Mesh Models

Working with the User Coordinate System (UCS)

1. UCS Basics
2. UCS X, Y, and Z Commands
3. UCS Multi-functional Grips
4. Saving a UCS by Name

Creating Solids and Surfaces from 2D Objects

1. Complex 3D Geometry
2. Extruded Solids and Surfaces
3. Swept Solids and Surfaces

COURSE TOPICS

Creating Solids and Surfaces from 2D Objects (cont...)

4. Revolved Solids and Surfaces
5. Lofted Solids and Surfaces
6. NURBS Surfaces

Modifying in 3D Space

1. 3D Gizmo Tools
2. Aligning Objects in 3D Space
3. 3D Modify Commands

Advanced Solid Editing

1. Editing Components of Solids
2. Editing Faces of Solids
3. Fillets and Chamfers on Solids

Additional Editing Tools

1. Creating a Shell
2. Imprinting Edges of Solids
3. Slicing a Solid along a Plane
4. Interference Checking
5. Converting Objects to Surfaces
6. Converting Objects to Solids

Refining the View

1. Working with Sections
2. Working with Cameras
3. Managing Views in 3D
4. Animating with ShowMotion
5. Creating ShowMotion Shots
6. Creating Animations

Point Clouds

1. Point Clouds

Visualization

1. Creating Visual Styles
2. Working with Materials
3. Specifying Light Sources
4. Rendering Concepts

Working Drawings from 3D Models

1. Creating Multiple Viewports
2. 2D Views from 3D Solids
3. Creating Technical Drawings with Flatshot
4. 3D Model Import
5. Automatic Model Documentation
6. 3D Printing