

## **AUTOCAD 3D MODELING**

Credits:	Valid for 8 AIA hours/LUs and 8 NY State CE Units
Prerequisite:	Working knowledge of a Windows OS and AutoCAD
Available Times:	1 day, 9:00am-5:00pm; 2 mornings, 9:00am-1:00pm; 2 late afternoons

### OBJECTIVE

This course provides a comprehensive introduction to the changes and updates in the latest version of AutoCAD, allowing attendees to get up-to-speed with the new software quickly.

#### **TOPICS INCLUDE**

**INTRODUCTION TO 3D** The class starts by getting attendees acquainted with 3D modeling and the methods, commands, and options for creating 3D designs, including predefined solid primitives, composite solids, and mesh shape types. Learn to use the User coordinate system.

**CREATING SOLIDS AND SURFACES FROM 2D OBJECTS** This section covers the creation of extrusions, sweeps, revolves, and lofts.

**MODELING WORKFLOW** The lessons in this section cover various workflows and modeling techniques one uses in the course of creating, editing, and checking the integrity of surface and composite solid models.

**EDITING MODELS** This portion of the class focuses on the methods, commands, and options for editing 3D models such as mirror, array and grips, allowing the generation of complex shapes from mesh objects. Students will work with the 3D gizmos and align objects in 3D space. Learn to use commands such as shell, imprinting edges, slicing a solid, interference checking, and converting objects to solids.

**SECTIONING A MODEL AND CREATING DRAWINGS** This section teaches attendees how to remove part of a 3D model and generate 2D geometry from solid models, and how to create 2D and 3D drawings from 3D models.

**VISUALIZATION** Attendees learn visual style overrides, making scenes realistic using cameras and lights, creating and editing materials, rendering scenes, using the sun to enhance outdoor scenes, and navigating 3D models using 3Dfly, 3Dwalk, and motion-path-animation commands.

**DOWNSTREAM USES FOR YOUR DIGITAL PROTOTYPE** The final section enables attendees to output models into a digital format that can create a physical, scaled prototype model that is both cost effective and east to produce using common rapid prototyping technologies.

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