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# AutoCAD Essentials

**3 Days**  
**24 AIA/CES**



## Course Description

Students learn the features, commands, and techniques for creating, editing, and printing drawings with AutoCAD. Using hands-on exercises, students explore how to create 2D production drawings.

Course is conducted either online or at our Autodesk Authorized Training Center in Hoboken, NJ. Class regularly begins at 9:00 a.m. and ends at 5:00 p.m. with two fifteen minutes breaks and a one-hour lunch. Autodesk Certification Tests are available separately on request.

## Objectives

The primary objective of this course is to teach the students the basic commands necessary for professional 2D drafting and design using AutoCAD.

After completing this course, students will be able to:

- Navigate the AutoCAD user interfaces.
- Use the fundamental features of AutoCAD.
- Use the precision drafting tools in AutoCAD to develop accurate technical drawings.
- Present drawings in a detailed and visually impressive way.

## Who Should Attend

This course is designed for individuals with little to no AutoCAD experience. Anyone who wishes to become proficient with AutoCAD in any industry including architecture, engineering, construction, manufacturing, and product design.

## Prerequisites

Before attending this course, students should have working knowledge of the following:

- Drafting, design or engineering principles.
- Microsoft Windows.

# Course Outline

## Taking the AutoCAD Tour

- Navigating the Working Environment
- Working with Files
- Displaying Objects

## Creating Basic Drawings

- Inputting Data
- Creating Basic Objects
- Using Object Snaps
- Using Polar Tracking and Polar Snap
- Using Object Snap Tracking
- Working with Units

## Manipulating Objects

- Selecting Objects in the Drawing
- Changing an Object's Position
- Creating New Objects from Existing Objects
- Changing the Angle of an Object's Position
- Creating a Mirror Image of Existing Objects
- Creating Object Patterns
- Changing an Object's Size

## Drawing Organization and Inquiry Commands

- Using Layers
- Changing Object Properties
- Matching Object Properties
- Using the Properties Palette
- Using Linetypes
- Using Inquiry Commands

## Altering Objects

- Trimming and Extending Objects to Defined Boundaries
- Creating Parallel and Offset Geometry
- Joining Objects
- Breaking an Object into Two Objects
- Applying a Radius Corner to Two Objects
- Creating and Angled Corner Between Two Objects
- Changing Part of an Object's Shape

## Working with Layouts

- Using Layouts
- Using Viewports

## Annotating the Drawing

- Creating Multiline Text
- Creating Single Line Text
- Using Text Styles
- Editing Text

## Dimensioning

- Creating Dimensions
- Using Dimension Styles
- Editing Dimensions
- Using Multileaders

## Hatching Objects

- Hatching Objects
- Editing Hatch Objects

## Working with Reusable Content

- Using Blocks
- Working with Design Center
- Using Tool Palettes

## Plotting Your Drawings

- Using Page Setups
- Plotting Drawings

## Standards Creation

- Creating Drawing Templates
- Using Drawing Templates

## Working with Tables

- Working with Table Styles
- Creating and Editing Tables
- Creating Advanced Tables
- Extracting Attributes to Tables
- Exporting and Importing Tables
- Creating Tables Linked to External Data

**Note:** The suggested duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.