

# Learning AutoCAD Mechanical 2010

**Duration:****3 Days**

In this training, users learn the features, tools, and proper techniques for creating 2D mechanical drawings using AutoCAD® Mechanical 2010. The hands-on exercises, representing real-world design scenarios, teach users how to efficiently create mechanical designs and engineering production drawings.

**Objectives:**

The primary objective of this class is to teach users the basic skills necessary to become proficient with professional 2D mechanical drawing, design, and drafting using AutoCAD Mechanical 2010.

After completing this class, users will be able to:

- Identify and use the key components of the AutoCAD Mechanical 2010 user interface.
- Use the fundamental features of AutoCAD Mechanical 2010.
- Use the precision drafting tools in AutoCAD Mechanical 2010 to develop accurate technical engineering drawings.
- Demonstrate a high level of comfort and confidence with AutoCAD Mechanical 2010 through hands-on practice.

**Who Should Attend & Prerequisites:**

This courseware is designed for new users of AutoCAD Mechanical. Before using this courseware, students should have a working knowledge of the following:

- Microsoft® Windows® Vista, Microsoft® Windows® XP, or Microsoft® Windows® 2000.
- A recent version of AutoCAD (recommended but not necessary).
- Drafting, design, or engineering principles.

## Learning AutoCAD Mechanical Course Outline:

### Day 1

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#### Getting Started

- Interacting with the User Interface
- Common Drawing Setup

#### Object Property and Layer Management

- Property Management
- Layer Control

#### Organizing Drawing Geometry

- Drawing Creation Workflows and Organization
- Structuring Data in Drawings
- Reusing and Editing Structured Data

#### Tools for Creating Key Geometry

- Core Design Tools
- Designing with Lines
- Power Snaps
- Centerlines
- Construction Lines
- Adding Standard Feature Data for Holes and Slots

### Day 2

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#### Tools for Manipulating Geometry

- Editing Tools
- Power Commands
- Associative Hide

#### Mechanical Part Generators

- Standard Parts
- Chain/Belt
- Shaft Generator
- Standard Shaft Parts
- Springs

#### Creating Drawing Sheets

- Creating Drawing Sheets in Model Space
- Model Space Views in Layouts
- Annotation Views When Using Structure
- Title Blocks and Drawing Borders

#### Dimensioning and Annotating Your Drawings

- Annotation and Annotation Symbols
- Creating Dimensions
- Editing Dimensions
- Hole Charts and Fits Lists
- Revision Lists

### Day 3

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#### Bill of Materials, Parts Lists, and Balloons

- Part References
- Bill of Materials
- Inserting Parts Lists
- Ballooning Parts

#### Design Calculations

- Design Calculations

#### Leveraging Existing Data

- Library
- DWG™ and IGES Files
- Inventor Link

#### Mechanical Options for the CAD Manager

- Standards-Based Design
- Configure Layer, Text, and Symbol Properties
- Configure the Annotation Tools
- Configure Component Properties, BOM, Parts Lists, and Balloons