ROBOTECH CADSolutions

Autodesk
Silver Partner
Architecture, Engineering & Construction
Authorized Training Center

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AutoCAD Mechanical

**3 Days
24 AIA/CES**

Course Description

Designed to teach the fundamentals of working in AutoCAD Mechanical, this hands-on course is intended to teach students how to create mechanical designs and engineering production drawings efficiently using AutoCAD Mechanical.

The doors open at 8:45 a.m. Class begins at 9:00 a.m. and ends at 5:00 p.m. with two fifteen minutes breaks and a one hour lunch. We have bagels and coffee served in the morning upon arrival. A book and a certificate of completion are included in this fee.

Objectives

The primary objective of this course is to teach students the basic skills necessary to become proficient with creating professional 2D mechanical drawings, designing, and drafting using AutoCAD Mechanical.

After completing this course, students should be able to:

• Identify and use the key components of the AutoCAD Mechanical user interface.

• Use the fundamental features of AutoCAD Mechanical.

• Use the precision drafting tools in AutoCAD Mechanical to develop accurate technical engineering drawings.

• Demonstrate a high level of comfort and confidence with AutoCAD Mechanical through hands-on practice.

Who Should Attend

This courseware is designed for new users of AutoCAD Mechanical.

Prerequisites

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

• A recent version of AutoCAD 2010 or newer (recommended but not necessary).
• Drafting, design, or engineering principles.
• Microsoft Windows

Course Outline

AutoCAD Mechanical Design Concepts
• Interacting with the User Interface

User Interface
• Common Drawing Setup

Mechanical Layers and Layer Control
• Layers
• Layer Control

Workflows for Organizing and Creating Drawing Geometry
• 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

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

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

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