

AutoCAD Mechanical Essentials

Courseware Description

This courseware is designed for the new AutoCAD® Mechanical user who requires comprehensive training in AutoCAD Mechanical. It incorporates the features, commands, and techniques for creating and editing mechanical designs with AutoCAD Mechanical.

This courseware focuses on features, tools, and techniques that make students productive with AutoCAD Mechanical in the shortest possible time.

Hands-on exercises throughout the courseware enable students to practice creating mechanical engineering production drawings.

Suggested Course Duration:	4 days
Pages:	Volume 1 - 286 Volume 2 - 370
Trial CD:	Yes
Onscreen Exercises Included?	Yes

Objectives

The primary objective of this courseware is to teach students the basic commands necessary for professional 2D mechanical drawing, design, and drafting using AutoCAD Mechanical.

After completing this course, students will 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

It is recommended that the student have a working knowledge of:

- AutoCAD® (recommended but not necessary).
- Drafting, design, or engineering experience is a plus.

<http://www.amsystems.com/training/>

Course Outline

Day 1

AutoCAD Mechanical Design Concepts

- Concepts
- Key Functionality

User Interface

- Interacting with the User Interface
- Common Drawing Setup

Mechanical Layers and Layer Control

- Layers
- Layer Control

Day 2

Tools for Creating Key Geometry

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

Tools for Manipulating Geometry

- Editing Tools
- Power Commands

Mechanical Part Generators

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

Day 3

Creating Drawing Sheets

- Model Space Views in Layouts
- Title Blocks and Drawing Borders
- Creating Detail Views in Model Space

Dimensioning and Annotating Your Drawings

- Creating Dimensions
- Manipulating Dimensions
- Annotation Symbols
- Revision Lists

Bill of Materials, Parts Lists, and Balloons

- Bill of Materials
- Inserting Parts Lists
- Balloons

Design Calculations

- Design Calculations

Day 4

Working with Mechanical Structure

- Structuring Data in Drawings
- Reusing and Editing Structured Data
- Structure and Other Tools

Mechanical Options For the CAD Manager

- AM: Standards
- AM: Structure
- AM: Drawing
- AM: Standard Parts
- AM: Shaft
- AM: Calculations
- AM: Preferences

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 participants.

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