Autodesk AutoCAD Mechanical Essentials

Course Length: 4 days

The AutoCAD® Mechanical Essentials training course teaches students about the indispensable core topics required to use the AutoCAD® Mechanical software. Through a hands-on, practice-intensive curriculum, students acquire the knowledge needed to accelerate the mechanical design process. With specific tools for creating and manipulating geometry, automatically acquiring bills of materials, generating mechanical components, and performing design calculations, the AutoCAD Mechanical software offers significant productivity gains that the student learns to maximize.

After completing this training course, you will be able to:

- Identify the main interface elements, their setup, and what Help information is available and to create and use drawing template files.
- Describe the object property management system, where layers are configured, and the tools for manipulating layers.
- Organizing drawing geometry and create Mechanical structure in a drawing.
- Describe the core mechanical design tools of rectangle, hatch, fillet, chamfer, holes, slots, and threads and how to use them to create and modify geometry in your drawings.
- Modify and edit drawing objects by creating multiple offset copies, scale them, or use a power command.
- Insert industry standard parts into your assembly designs.
- Create production-ready drawings in model space, and layouts of structured and non-structured geometry, and insert title blocks and borders.
- Notate a drawing through the creation and editing of dimensions, hole charts, fits lists, and mechanical symbols.
- Explain how to create and edit a bill of materials, parts list, and balloons.
- Describe the tools used to verify the standard or custom parts within your design.
- Exchange data between CAD systems and create Mechanical drawings using Model Documentation.
- Create a custom drafting standard and drawing template with layers, object properties, symbols, text, BOM, parts list, balloons, etc.

Prerequisites:

This training course is designed for students that are new to the AutoCAD Mechanical software.

- A basic understanding of mechanical drafting or design.
- A working knowledge of the AutoCAD® software and the Microsoft® Windows® operating system.

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

Chapter 8: Dimensioning and Annotating Drawings

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

Chapter 9: Bill of Materials, Parts Lists, and Balloons

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

Chapter 10: Design Calculations

- Lesson: Design Calculations

Chapter 11: Leveraging Your Existing Data

- Lesson: DWG Files
- Lesson: IGES Files
- Lesson: Model Documentation

Chapter 12: Mechanical Options for the CAD Manager

- Lesson: Standards-Based Design
- Lesson: Configure Layer, Text, and Object Properties
- Lesson: Configure the Annotation Tools
- Lesson: Configure Component Properties, BOMs, Parts Lists, and Balloons

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