

AutoCAD Mechanical 2010 Course Outline

Environment

- Getting Started
- AutoCAD Mechanical's Default User Interface
- AutoCAD Mechanical's Alternate User Interfaces
- AutoCAD Mechanical Help
- AutoCAD Mechanical's Layer Management: Basic Concepts
- AutoCAD Mechanical Layer Management
- AutoCAD Mechanical Layer Management Tools

Creating Designs

- Geometry Creation and Manipulation
- Drawing Rectangles and Squares
- Drawing Centerlines
- Drawing More Centerlines
- Drawing Zig Zag and Symmetrical Lines
- Drawing Section Lines
- Construction Line Tools
- Basic Construction Lines
- Construction Line Circles
- Projecting Construction Lines
- Contour Tracing
- Hatch Commands
- Adding Fillets
- Adding Chamfers
- Offset Command
- Move, Copy and Rotate Command
- Join and 2D Hide Commands
- Adding Standard Holes
- Adding Counterbored and Countersunk Holes
- Adding Slots
- Editing and Erasing Mechanical Objects
- Shaft Generator - Part 1
- Shaft Generator - Part 2
- Shaft Side Views and Section Views

Creating Designs

- Shaft Parts
- Spring Utilities
- Chain and Belt Design Tools
- Chain and Belt Design - Length
- Inserting Structural Steel Shapes
- Power Copy
- Power View

Managing and Using Content Libraries

- Content Libraries
- Inserting Objects from Content Libraries
- Content Manager
- Creating Custom Content Libraries
- Adding Content to Custom Libraries

Annotations and Documentation

- Annotation and Documentation Overview
- Power Dimensioning
- Power Dimensioning: Radial and Diametrical Dimensions
- Power Dimensioning: Angle and Chamfer Dimensions
- Power Dimensioning Dialog Box
- Power Dimensioning: Fits and Tolerances
- Power Dimensioning Settings
- Power Dimensioning: Multiple Dimensions
- Editing Automatic Dimensions
- Editing Power Dimensions
- Editing Dimensions: Joining, Inserting and Checking Dimensions
- Editing Dimensions: Breaking Dimensions
- Weld Representations
- Leader Notes
- Surface Texture Symbols
- Weld Symbols
- Creating Hole Charts
- Hole Chart Settings
- Title Blocks and Borders
- Dimension and Symbol Scale Factor
- Detail View
- Viewport Creation and Editing
- Scale Area Creation and Editing
- Creating Simple Hide Situations
- Editing a Simple Hide Situation

Designing Assemblies with Layer Groups

- Layer Group Overview
- Layer Group Concepts
- Creating Layer Groups
- Layer Group Tools
- Additional Layer Group Tools and Techniques

Designing Assemblies with Structure

- Structure Overview
- Structure Concepts
- Structure Bill of Material Tools
- Creating Folders
- Creating an Assembly with Structure
- Creating Additional Structure Views

Structure Annotation Views
Browser Structure Tools

Documenting Parts and Assemblies

BOM Concepts
Creating and Editing Part References
Working with the Bill of Material Database
Bill of Material Database Settings
Creating and Editing Parts Lists
Parts List Filters and Groups
Parts List Settings
Adding Balloons
Balloon Settings

Analysis and Validation

Analysis Overview
Deflection Line Calculations
Shaft Calculations
Finite Element Analysis
Finite Element Analysis Meshing and Results
Cam Profile Generator
Cam Profile and Analysis

Interoperability with AutoCAD

Interoperability of AutoCAD and Mechanical
AutoCAD to Mechanical
Mapping AutoCAD Layers
Removing Mechanical Structure
Migrating Title Blocks and Parts Lists

Interoperability with Inventor

Documenting Inventor Models with Mechanical
Creating Inventor Links
Creating Projected Views
Creating Section and Broken Views
Creating Multiple Views and Detail Views
Updating Inventor Link Drawings
Drawing View Settings
Documenting Inventor Assemblies

Implementing Preferences and Standards

Mechanical Preferences and Standards
AM:Standards Settings
AM:Structure Settings
AM:Drawing Settings
AM:Content Settings
AM:Shaft Settings

AM:Calculation Settings
AM:Preferences Settings

Implementing Preferences and Standards

Associative Hide Settings
Power Snap Settings
Object Property Setting