COURSE SYLLABUS

AutoCAD Level I

Learn how to use AutoCAD to create drawings for real mechanical and architectural objects, starting with basic tools and moving on to more advanced skills. This course will cover topics like creating and editing drawings, using object snaps and tracking, organizing drawings with layers, and inserting blocks.

> Group classes (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://sdfm.graduateschool.edu/courses/autocad-level-1



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Course Outline

1: Getting Started with AutoCAD

- Opening and Creating Drawings
- Exploring the AutoCAD interface
- Zooming and Panning

2: Basic Drawing & Editing Commands

- Using the Mouse, Keyboard, and Enter Key to work quickly and efficiently in AutoCAD
- Lines
- Circles
- Rectangles

3: Projects - Creating a Simple Drawing

- Creating Simple Drawings
- Using Object Snap Tracking to extrapolate a projected top view
- Using Modify tools to arrange an office layout

4: Drawing Precision in AutoCAD

- Polar and Ortho Tracking
- Entering Coordinates and Angles
- Object Snaps and Tracking

5: Making Changes in Your Drawing

- Move
- Copy
- Rotate
- Mirror

- Scale
- Using the reference option with the Scale Tool

6: Drawing Templates

- Using Template Files (.dwt) to Make New Drawing
- Exploring what Settings and Elements are saved with Templates

7: Organizing Your Drawing with Layers

- Layer States
- Properties by Layer
- Layer Tools

8: Advanced Object Types

- Polylines
- Arcs
- Polygons
- Ellipses

9: Analyzing Model and Object Properties

- The Properties Palette
- Quick Select
- Select Similar
- Measure Geometry Tools

10: Projects - Drawing Organization & Information

- Drill Plate
- Furniture Showroom

11: Advanced Editing Commands

- Trim and Extend
- Fillet and Chamfer
- Polyline Edit and Spline
- Offset and Explode
- Join

12: Inserting Blocks

- The Insert Block Command
- Inserting Blocks with Tool Palettes
- Dynamic Blocks
- Migrating Blocks and other Elements between Drawings with Design Center

13: Projects - Creating More Complex Objects

Starting a Floor Plan

14: Setting Up a Layout

- Using Layouts and Viewports
- Scaling Viewports
- Model Space vs. Paper Space in Layouts

15: Printing Your Drawing

- Printing from Layout Tabs
- Printing from the Model Tab

16: Projects - Preparing to Print

Making Layouts for a Banquet Hall

17: Text

- The Multiline Text Tool
- The Single Line Text Tool
- Editing Text
- Text in Model Space vs. Paper Space
- The Multileader Tool

18: Hatching

- The Hatch Command
- The Hatch Editor Ribbon Tab
- Saving and Applying Hatches with Tool Palettes

19: Adding Dimensions

- Using Dimensioning Tools
- Dimensioning in a Layout Tab vs. the Model Tab
- Using Dimension Styles
- Editing Dimensions

20: Projects - Annotating Your Drawing

Dimensioning a Mechanical Drawing