# **AutoCAD Level I (Live Online)**

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 such as creating and editing drawings, using object snaps and tracking, organizing drawings with layers, and inserting blocks.

Group classes in Live Online and onsite training is available for this course. For more information, email <a href="mailto:partnerships@vdci.edu">partnerships@vdci.edu</a> or visit: <a href="https://vdci.edu/courses/autocad-level-i">https://vdci.edu/courses/autocad-level-i</a>



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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 Blocs
- · 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 Banquette 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