

## Course Outline

---

### AutoCad 2D

**Duration:** 5 days (30 hours)

**Learning Objectives:**

**Target Audience:**

New users who want to know how to create and edit 2D drawings

**Prerequisites:**

Windows 2000- Beginner or equivalent

**Topics Covered:**

- Getting Started
  - Learn How To Start AutoCAD
  - Start Button
  - AutoCAD Shortcuts
  - Introduce The AutoCAD Interface
  - Command Line
  - AutoCAD Text Window
  - Pulldown Menus
  - Toolbar Buttons
  - Status Bar
  - Model & Layout Tabs
  - Communicating With AutoCAD
  - Responding To Prompts
  - Right-click Shortcuts
  - Learn How To Get Out Of Trouble
  - Canceling Commands
  - Using Undo and Redo
  - Using On-line Help
  - Managing Drawing Files
- Display Commands
  - Learn About Drawing Scale In AutoCAD
  - Learn Basic Zoom Features
  - Learn How To Pan
  - Learn How To Use Real-Time Pan & Zoom
- Coordinates & Basic Drafting Tools

- Responding To Prompts For Points
- Absolute Coordinates
- Relative Coordinates
- Polar Coordinates
- Direct Distance Entry
- Using Basic Drafting Tools
- Object Snap Overrides
- OSNAP
- POLAR
- SNAP
- GRID
- OTRACK (not in LT)
- Creating 2D Geometry
  - Learn More About Creating LINES
  - Undoing The Last End Point
  - Using The Continue Feature
  - Closing The Polygon
  - Learn To Create & Edit LWPOLYLINEs
  - PLINE
  - PEDIT
  - DONUT
  - POLYGON
  - RECTANG
  - Learn To Create ARCs & CIRCLES
  - Review Pull-down Menu Options
  - Learn To Create POINTs & Create Styles
  - Learn What POINTs Are
  - Learn When To Use POINTs
  - Changing POINT Styles
  - Using MEASURE & DIVIDE
  - Learn To Create ELLIPSES
- Editing 2D Geometry
  - Learn How To Select Multiple Objects
  - Window
  - Crossing
  - Previous
  - Learn Basic Edit Techniques
  - Erase
  - Move
  - Copy
  - Rotate
  - Scale

- Managing Object Properties
  - Introduce The Use Of Layers
  - What Are Layers?
  - Why Use Layers?
  - Setting Linetype Scale
  - Plotting From The Model Tab
  - Plotting From A Layout Tab
  - Introduce The Properties Tool
  - Interface Overview
  - Changing Properties of Selected Objects
  - Using The Object Property Toolbar
  - Setting The Current Layer
  - Changing Layer Settings
  - Overriding Properties Set BYLAYER
  - Manage Object Properties BYLAYER
  - Color
  - Linetype
  - Lineweight
- CAD Construction Techniques
  - Learn Basic Commands For Construction
  - OFFSET
  - TRIM
  - EXTEND
  - FILLET
  - CHAMFER
  - MIRROR
  - STRETCH
  - ARRAY
- Creating Text & Defining Styles
  - Learn To Create TEXT Objects
  - Text Height vs Drawing Scale
  - Justification
  - The DTEXT Command
  - Learn To Create & Modify Text Styles
  - Fixed Height vs Variable Height
  - Fonts
  - Width Factors
  - Oblique Angles
  - Backwards, Upsidedown, Vertical
  - Introduce MTEXT Objects
  - Learn When To Use MTEXT vs TEXT
  - Learn How To Create Basic MTEXT

- Learn To Modify Existing Text
- Double-clicking To Edit Text
- Using The Properties Command
- Editing TEXT Objects
- Editing MTEXT Objects
- Introduction to Blocks
  - Learn How To Define New Blocks
  - Learn What Blocks Are
  - Learn Where Blocks Are Stored
  - Understand Benefits To Using Blocks
  - Learn How To Insert Blocks & Drawing Files
  - Using The INSERT Command
  - Introduction To DesignCenter
  - Introduce Attributes
  - Creating Titleblocks With Attributes
  - Editing Attribute Values In Block Inserts
- Dimensions & Crosshatching
  - Learn How To Create Basic Dimensions
  - Linear
  - Angular
  - Radius
  - Diameter
  - Introduce Dimension Styles
  - Creating & Using Dimension Styles
  - Key Dimension Variables
  - Drawing Scale & Dimension Feature Size
  - Editing Dimensions
  - Changing Dimension Text
  - Shortcuts & Key Dimension Parameters
  - Using Properties To Edit Dimensions
  - Introduce Associative Dimensions
  - What Are Associative Dimensions?
  - Turning Associative Dimensioning On
  - Introduce Trans-Spatial Dimensions
  - Introduce Crosshatching
  - Creating HATCH Objects
  - Editing HATCH Objects
- Page Setup & Plotting
  - Learn How To Navigate In Layouts
  - Setting The Current Tab
  - Switching Spaces
  - Status Bar Buttons

- Shortcut Menus
  - Learn How To Make & Define Layouts
  - Creating New Layouts From Scratch
  - Using The Page Setup Utility
  - Copying & Moving Layouts
  - Renaming & Deleting Layouts
  - Learn How To Create & Define Viewports
  - Creating & Using Rectangular Viewports
  - Setting & Locking Viewport Scale
  - Freezing Layers In Selected Viewports
  - Review Trans-Spatial Dimensions
  - What Are Trans-Spatial Dimensions?
  - Turning Associative Dimensioning On
  - Pros/Cons To Trans-Spatial Dimensions
  - Introduce Plotting Concepts
  - Installing New Plot Devices
  - Attaching Plot Devices To Layouts
  - Previewing Plots
- Introduction To Drawing Setup
- Important Parameters For New Drawings
  - Text Styles & Fonts
  - Layer Definitions
  - Dimension Styles
  - Title Blocks & Page Setup
  - DesignCenter & Existing Drawings
  - Review Related System Variables & Units
  - English & Metric Default Settings
  - Drawing Units
  - Drawing Limits
  - The Options Command
  - Learn How To Make New Drawings
  - Start From Scratch
  - From Template