

# **AUTOCAD (FUNDAMENTALS** TO INTERMÉDIATE) COURSE **SYLLABUS**

**Duration: 36 hrs** 

#### **Course Objective**

To provide a solid foundation in AutoCAD drafting and design including creating, editing, annotating, and printing 2D drawings, with an introduction to 3D modeling concepts.

# Module 1: Introduction to **AutoCAD & amp; Interface Navigation**

- Overview of AutoCAD environment
- Understanding coordinate systems (Absolute, Relative, Polar)
- Toolbars, Ribbon, Command Line
- File management (.DWG, .DXF)
- · Setting up drawing units, limits, and grid

## Module 2: Drawing Basics - Geometry Creation Tools

- Drawing commands: LINE, CIRCLE, ARC, RECTANGLE, POLYGON, ELLIPSE
- Object snaps (OSNAP), Polar Tracking
- Drawing precision tools (ORTHO, GRID, SNAP)
- Practice: Drawing a telecom layout or simple mechanical plate

#### Module 3: Modifying **Commands**

- MODIFY tools: ERASE, COPY, MOVE, ROTATE, SCALE, TRIM, EXTEND
- FILLET, CHAMFER, OFFSET, MIRROR, ARRAY (Rectangular/Polar/Path)
- GRIPS and Properties palette

### Module 4: Layers, Object **Properties & amp; Blocks**

- · Layer management: creating, naming, color coding
- Line types, line weights
- Creating and inserting BLOCKS
- Understanding XREF (External Reference) basics

### Module 5: Annotation, Text & Dimensioning

- · Creating single-line and multiline text
- Annotative text and dimensions
- Dimension styles and tolerances
- Leaders and multileaders
- Notes and callouts

### **Module 6: Hatching, Gradients & amp; Boundaries**

- · Applying hatches and patterns
- Gradient fills
- Using boundary and region tools
- Practical exercise on crosssections

# **Module 7: Working with** Layouts, Viewports & Damp; **Printing**

- Model space vs Paper space
- · Creating and managing viewports
- Title blocks and company templates
- Plotting/printing settings (scales, page setup)
- Exporting PDF drawings

### **Module 8: Advanced Object Editing & amp; Attributes**

 Using Quick Select, Match **Properties** 

- Creating and editing Block Attributes
- Extracting attribute data to tables
- Dynamic Blocks basics

#### Module 9: Introduction to 3D **Concepts**

- Understanding 3D workspace
- Basic 3D commands: EXTRUDE, PRESSPULL, UNION, SUBTRACT, **INTERSECT**
- 3D View controls (Orbit, Visual Styles)
- · Introduction to rendering and materials

#### Module 10: Project & amp; **Review Session**

- Full 2D Project: Site plan / Floor plan / Telecom layout
- · Layers, annotations, and printing setup
- Instructor review and Q&A session

# **CHENNAI**

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#### **OMR**

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# **OVERSEAS**

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UAE

Sima Electronic Building, LLH Opposite, Electra Street – Abu Dhabi





