



Civil Engineering

**AutoCAD 2 D CIVIL 3 D**

# Course Introduction

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## AutoCAD.

In this comprehensive training program, you will embark on a journey to master the fundamentals of AutoCAD. Whether you're a beginner or seeking to enhance your skills, this program is designed to provide you with the knowledge and tools necessary to excel in creating precise and detailed drawings.

## Target Audience

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- Civil Engineers
- Surveyors
- Urban Planners

## Learning Objectives

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- Understand the AutoCAD interface and customize it according to their preferences.
- Navigate efficiently using essential tools such as Zoom, Pan, and Orbit.
- Master the use of drawing and modification commands available in the Draw and Modify toolbars.
- Learn how to work with text, tables, and dimensions to annotate drawings accurately.
- Explore advanced features like multi-leaders, blocks, and groups to streamline drawing workflows.
- Gain proficiency in managing object and layer properties for organized and efficient drawing management.
- Utilize utilities for precise measurement and calculation of distances, angles, and areas.

- Apply learned skills to create a 2D house plan, including floor plans, elevations, and sections.
- Learn techniques for printing drawings and managing external references.
- Explore the basics of 3D modeling, including creating elevations and applying materials for realistic rendering.

## Course Outline

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### • DAY 01

#### **Draw Toolbar:**

- Line Command
- Polyline Command
- Circle Command
- Arc Command
- Rectangle Command
- Polygon Command
- Ellipse Command
- Spline Command
- Construction Line & Ray Command
- Point Command
- Divide & Measure Commands
- Hatch Command
- Gradient Command
- Boundary & Region Commands

#### **Modify Toolbar:**

- Copy & Move Commands
- Trim Command
- Extend Command
- Erase Command
- Rotate Command
- Mirror Command
- Fillet Command
- Chamfer Command

- Explode Command
- Stretch Command
- Scale Command
- Offset Command
- Lengthen Command
- Align Command
- Break Command
- Join Command
- Overkill Command
- Rectangular Array Command
- Polar Array Command
- Path Array Command
- Selection Methods in AutoCAD

## • Day 02

### **Status bar keys:**

- Grid & Snap Mode
- Dynamic Input
- Ortho Mode & Polar Tracking
- Object Snap
- Object Snap Tracking
- Other Status Bar Keys

### **Text in AutoCAD:**

- Single Line Text Command
- Customizing Text Style
- Multi Line Text Command

### **Table in AutoCAD:**

- Table Command -01
- Table Command -02
- Customizing Table Style

### • Day 03

#### **Dimensions in AutoCAD:**

- Dimension Options
- Dimension Command
- Quick Dimension
- Continue & Baseline Dimension Options
- Customizing Dimension Style
- Override Dimension Style
- Tolerance Options

#### **Multi leader in AutoCAD:**

- Multi Leader Command
- Multi Leader Settings
- Block and Group commands:
- Creating Block
- Inserting & Editing Blocks
- Creating Group

### • Day 04

#### **Object and layer properties:**

- Object Properties
- Layer Toolbar -01
- Layer Toolbar -02

### **Utilities in AutoCAD:**

- Distance, Radius & Angle Measurement
- Area Measurement

### **2D House plan in AutoCAD:**

- Creating Location Plan
- Creating Ground Floor Plan
- Creating Stairs, Doors & Windows
- Inserting Text
- Inserting Dimensions
- Placing Interior Fixtures
- Creating First Floor Plan
- Creating Front Elevation
- Creating Sectional Elevation

### **• Day 05**

### **Printing the file and external references:**

- Printing or Plotting the Drawing File
- External References

### **3D Elevation in AutoCAD:**

- Creating 3D Elevation of Plan
- Creating & Placing 3D Stairs

**Materials and rendering in AutoCAD:**

- Applying Materials to 3D House
- Creating Render Images of 3D House

**Who should attend?**

- Civil Engineers.
- Architects.
- Construction Managers.
- CAD Technicians.

**Targeted Competencies:**

- Customizing the AutoCAD Interface.
- Efficient Navigation.
- Drawing and Modification Commands.
- Object and Layer Management.
- Measurement and Calculation.
- Creating 2D House Plans.
- 3D Modeling.

# Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 12, 2025	May 16, 2025	5 days	4250.00 \$	UAE - Dubai
Sept. 15, 2025	Sept. 19, 2025	5 days	4250.00 \$	UAE - Dubai
Dec. 15, 2025	Dec. 19, 2025	5 days	4950.00 \$	Malaysia - kuala lumpur