

# **AutoCAD - One Month Course Syllabus**

## **Course Overview**

Duration: 1 Month (4 Weeks)

Total Sessions: 16 (4 sessions/week, 1.5-2 hours each)

Level: Beginner to Intermediate

Course Objectives:

- Understand the basics of AutoCAD and its interface.
- Learn to create 2D and 3D drawings using AutoCAD.
- Master dimensioning, layering, and annotation.
- Apply advanced drawing and editing techniques.
- Create real-world architectural and mechanical drawings.

## **Week 1: Introduction to AutoCAD and Basic Drawing Tools**

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Session 1:

- Introduction to AutoCAD interface and workspace
- Setting up units and limits

Session 2:

- Basic drawing tools (Line, Circle, Arc, Rectangle)
- Object snaps and grid settings

Session 3:

- Editing tools (Move, Copy, Rotate, Scale, Trim)
- Layers and line types

Session 4:

- Practical Exercise: Create a simple floor plan using basic tools

## **Week 2: Advanced Drawing and Dimensioning**

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Session 5:

- Advanced drawing commands (Polyline, Spline, Ellipse)
- Mirror, Offset, and Array commands

Session 6:

- Dimensioning and Tolerancing
- Adding text and annotations

Session 7:

- Hatching and Gradients
- Using Blocks and Groups

Session 8:

- Practical Exercise: Create an annotated mechanical part

## **Week 3: 3D Modeling and Visualization**

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Session 9:

- Introduction to 3D modeling in AutoCAD
- Creating 3D primitives (Box, Sphere, Cylinder)

#### Session 10:

- Extrude, Revolve, Sweep, and Loft commands
- Boolean operations (Union, Subtract, Intersect)

#### Session 11:

- Applying materials and rendering
- Viewports and visual styles

#### Session 12:

- Practical Exercise: Create a 3D model of a building or object

### **Week 4: Plotting, Templates, and Final Project**

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#### Session 13:

- Plotting and Printing
- Creating templates and title blocks

#### Session 14:

- Importing and Exporting Files (DXF, PDF)
- Managing file references

#### Session 15:

- Final Project Planning and Work Session

#### Session 16:

- Final Project Presentation and Feedback

### **Final Project**

Final Project:

- Create a detailed architectural or mechanical drawing (2D and 3D)
- Include dimensions, annotations, and hatching
- Submit final DWG file and PDF output

## **Deliverables**

Deliverables:

- 2D and 3D Models (DWG files)
- Printed PDF files
- Final Project with Annotations and Dimensions