

# **Introduction to AutoCAD Course**

## **AutoCAD for Beginners: Level 1**

Nature of the Course: Theory + Practical

Total Hours per Day: 2 Hours

Course Duration: 1 Week

### **Course Booklet**

Using AutoCAD software, students master the features and elements of computer-aided drafting. This course places an emphasis on learning the fundamental drawing and editing commands needed to create simple two-dimensional drawings. Topics include entering and using the drawing editor, setting up the drawing environment, constructing entities, editing a drawing, display control and zooming, creating dimensions, creating layers and assigning objects, drawing storage and retrieval, layer and line-type options, detailing, blocks creation and exporting blocks. This course requires the students to have a basic understanding of Windows and software.

### **Completion Criteria**

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

### **Required Text Books**

1. Bill Fane, "AutoCAD for Dummies", Wiley.
2. Bill Fane, "AutoCAD Essentials", Wiley

## **Course Details**

### **DAY 1**

#### **INTRODUCTION**

- Introduction
- User Interface and Workspace
- Creating and saving drawings
- Drawing Units
- Pan and Zoom Tools
- Model space and Layout space

### **DAY 2**

#### **CREATING DRAWINGS**

- LINE command
- RECTANGLE command
- CIRCLE command
- POLYLINE command

### **DAY 3**

#### **MODIFYING AND MANIPULATING DRAWINGS**

- Making Selection
- Move And Copy Commands
- Rotate And Scale Commands
- Offset And Mirror Commands
- Trim And Extend Commands
- Fillet And Chamfer Commands
- Rectangular And Polar Array

### **DAY 4**

#### **DIMENSIONS AND TEXT**

- Creating Dimensions
- Creating dimension style
- Creating Single-line text and Multiline text
- Creating Text style

## **DAY 5**

### **LAYERS AND BLOCKS**

- Creating Layers and assigning objects
- Using Layer properties manager
- Editing object properties
- Creating and editing blocks

## **DAY 6**

### **LAYOUT AND PLOTTING**

- Preparing Layout and adding title blocks
- Viewports and scale
- Plotting drawing

## **DAY 7**

### **REVISION AND LAB SESSIONS**

#### **Learning Outcomes**

- You will be familiar with the AutoCAD interface and able to use the command panel.
- Ability to design two-dimensional drawings.
- Ability to create Layers and Blocks and Prepare Layouts.

## **Intermediate AutoCAD: Level 2**

Nature of the Course: Theory + Practical

Total Hours per Day: 2 Hours

Course Duration: 5 days

### **Course Summary**

This course is appropriate for students who have a basic AutoCAD drawing skill and want to advance their careers, utilize AutoCAD in their current position, or are creative enthusiasts. Topics in this course include Precision Drawing, Object Properties, and Labelling and Annotating Architectural Plan.

### **Completion Criteria**

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

### **Required Text Books**

- Brian C. Benton and George Omura, "Mastering AutoCAD 2021", Sybex.

## **Course Details**

### **DAY 1**

#### **INTRODUCTION PRECISION DRAWING IN AUTOCAD**

- Polar and Ortho mode
- Dynamic Input
- Object Snap
- Object Snap Tracking
- Editing with Grips

### **DAY 2**

#### **ADVANCED OBJECT TYPES**

- Arcs
- Ellipses
- Polygons
- Construction Line
- Multiline
- Tables
- Multileader
- Hatches

### **DAY 3**

#### **OBJECT PROPERTIES**

- Modifying object properties
- Line types, Line scale and Line weights
- Match properties

### **DAY 4**

#### **ADVANCED MODIFY COMMANDS**

- Stretch Command
- Break Command
- Join Command
- Align Command
- Layon, Layoff and Layiso Command

## DAY 5

### CREATING A SIMPLE DRAWING

- Drawing an architectural plan of a house
- Creating Sections and Elevations
- Creating detail drawings
- Labelling and annotating architectural plan

### Learning Outcomes

- Improved precision in drawing in AutoCAD
- Ability to use advanced commands
- Ability to modify object properties