



# IFS Academy

Training for the future!!!

## AutoCAD Basic Training Program

### Course Curriculum

#### 1) Introduction

- a) Autodesk company & products
- b) CAD history.
- c) Co-ordinate systems → Absolute & Relative (Further into Rectangular & Polar)
- d) Basics of Geometry
- e) Getting started with AutoCAD & system configuration.

#### 2) Getting Started with AutoCAD

- a) Starting AutoCAD
- b) AutoCAD Screen Components
- c) Drawing Area, Command Window, Application Status Bar
- d) Drawing Status Bar
- e) Status Bar Tray Options like Ortho, Snap, Osnap, Grid
- f) Invoking Commands in AutoCAD
- g) AutoCAD Dialog Boxes
- h) Starting a New Drawing, Open a Drawing
- i) Use a Template, Wizard & Creating a New Workspace
- j) Saving Your Work, Drawing Save As Dialog Box
- k) Closing a Drawing, Opening an Existing Drawing
- l) Understanding the Concept of Sheet Sets, Creating a Sheet Set, Adding a Subset
- m) Mouse & Keyboard Navigation

#### 3) Getting Started with 2D AutoCAD

- a) Setting Units
- b) Coordinate Systems (Absolute Coordinate System & Relative Coordinate System)
- c) Drawing Lines in AutoCAD
- d) Objects Selection Methods and Erasing objects
- e) Canceling and Undoing a Command
- f) Circles
- g) Arcs
- h) Rectangles
- i) Ellipses
- j) Polygons
- k) Polylines
- l) Donuts

- m) Points
- n) Infinite Lines
- o) Writing a Single Line and Multiline Text
- p) Isometric Drawing

#### **4) Editing Drawing**

- a) Move & Rotate
- b) Copy, Copy with Base Point and Pasting
- c) Trim, Extend, Lengthen & Break
- d) Scaling, Offset, Mirror
- e) Rectangular & Polar Array
- f) Use of Grips to modify sketch objects

#### **5) Creating other features**

- a) Creating Hatch Patterns
- b) Linetype Definitions, Properties (Line Type, Line Color, Line Weight)
- c) Layers
- d) Blocks
- e) Texts and Tables
- f) Inserting External Objects (OLE)

#### **6) Basic Dimensioning, Geometric Dimensioning, and Tolerancing**

- a) Linear Dimensions
- b) Aligned Dimension
- c) Arc Length Dimensions
- d) Angular Dimensions
- e) Baseline Dimension
- f) Continued Dimensions
- g) Diameter Dimensions, Jogged Dimensions, Radius Dimensions
- h) Generating Center Marks and Centerlines
- i) Creating Ordinate Dimensions
- j) Leaders
- k) Editing Dimensions Using Editing Tools
- l) Editing Dimensions with Grips
- m) Editing Dimensions Using the PROPERTIES Palette

#### **7) Basics of 3D**

- a) UCS & Region command
- b) 3D Solid commands like Extrude, Revolve, Sweep, Loft
- c) Editing commands like Slice, Section, Interface
- d) Booleans Operations having Add, Subtract and Interference
- e) Basic rendering like applying material, background, Lights and Camera

#### **8) Printing / Plotting**

- a) Templates
- b) Viewports

- c) Paper Setup
- d) Printer setup
- e) Tips & Tricks and Workshop

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