Mstechnologies.org

AutoCAD 2D/3D

DURATION : 2 MONTHS

AutoCAD 2D/3D

AutoCAD is a general purpose Computer Aided Design and Drafting (CAD) program which can be used to create all kinds of line drawings.This Autocad course covers 2d, 3d architectural designing and using of autocad software. This course is designed to provide delegates with the AutoCAD commands and computer-aided-drafting concepts to draw, design, and draft. Emphasis is placed on efficient and accurate drawing techniques incorporating the features, commands, and techniques for creating, editing, and printing 2D production drawings.

What will you learn?

At the end of this Autocad training, delegates will be able to create, edit and print 2/3 dimensional drawings.

- Navigate the AutoCAD user interface.
- Use the fundamental features of AutoCAD.
- Use the precision drafting tools in to develop accurate technical drawings.
- Present drawings in a detailed and visually impressive manner.

Why us? You may ask this question and it is quite valid one too. Good computer training institutes are not lacking in the market, so why you should opt for this one? The following facilities will provide you with the answer.

- Very convenient location.
- Reasonable course fee.
- Proper course duration, not more and not less.
- Experienced and highly qualified teachers.
- Very friendly approach and friendly relations of the teachers with the students.

 All these facilities will be more than enough to make you choose this institution.

Course Details

- For Students of Schools/colleges and career starters
- Duration 2 Months (32 Credit Hours)
- Instructor Led in Class Room
- Needs proficiency in computer usage
- Includes 15 Chapters containing 190+ topics, Exercises and a final Test/Project

Course Description This is General AutoCAD Course for the individuals about to start their career in Civil, Architectural, Interior Designing, Electrical, Mechanical, Plumbing, HVAC or any field that need to create something new around us.

Mindscapes Technologies Professional Instructor for AutoCAD® 2015 teaches you how to create and modify 2D and 3D geometry. Concepts and demonstrations cover beginner, topics including using layers, setting up drawings for print, manipulating drawing geometry and better understanding of AutoCAD interface.

1

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal
Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org
Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies

AutoCAD Course Contents

Getting Started	- Introduction to AutoCAD 2015 - Starting AutoCAD - Understanding How Tools are Organized - Switching Workspaces - Using the Application Menu - Using the Quick Access Toolbar - Understanding Ribbon Fundamentals - Introducing the Drawing Aid Tools - Introducing the Drawing Grid - Changing Screen Colors - Working Within the Drawing Window - Understanding Model and Layout Tabs - Understanding the Command Line - Understanding Dialog Box Fundamentals - Understanding Palette Fundamentals - Understanding Toolbar Fundamentals - Starting a New Drawing - Setting the Default Template - Starting a New Drawing Using the Startup Wizard - Saving Drawings - Opening Drawings - Using the Mouse - Fundamentals - Understanding Interface Components - Navigation Bar Understanding Interface Components - UCS Icon
2-Drawing Basics	- Drawing Lines - Command Line - Repeating the Last Command - Using the Undo and Redo Commands - Erasing Objects - Restoring Objects with OOPS - Selecting Objects - picking, Window and Crossing - Selecting Objects - Deselecting Objects - Understanding Command Options - Drawing Rectangles - Drawing Rectangles - Area - Drawing Rectangles - Dimensions

2

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies

	- Drawing Circles - Radius and Diameter - Drawing Circles - 2P and 3P - Drawing Arcs - 3-Point Concepts - Drawing Arcs - 3-Point Options - Understanding Coordinate Systems - Concepts - Understanding Coordinate Systems - Absolute - Understanding Coordinate Systems - Relative - Understanding Coordinate Systems - Units
3-Drafting Settings	- Using the Status Bar - Grid - Using the Status Bar - Snap - Using the Status Bar - Ortho - Using Grid, Snap and Ortho in Combination - Using Direct Distance Entry and Dynamic Input - Understanding Absolute Angle Measurements - Using Polar Tracking with Absolute Angles - Understanding Relative Angle Measurements - Using Polar Tracking with Relative Angles - Using Polar Tracking - Incremental Angles vs Additional Angles - Using Polar Tracking and Polar Snaps - Using Object Snap Tracking
4-Modify Objects - Manipulation Commands	- Introducing the Manipulation Commands - Using the Move Command - Using the Move Command with Object Snap - Using the Move Command with Object Snap Tracking - Using the Copy Command - Using the Copy Command with Object Snap - Using the Copy Command with Object Snap Tracking - Using the Mirror Command - Creating a Rectangular Array - Adjusting Rectangular Array Rows and Columns - Changing the Properties of Rectangular Arrays - Creating Associative and Non-Associative Arrays

3

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal
Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org
Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies

	- Creating a Polar Array - Adjusting Polar Arrays - Creating a Path Array - Changing the Path of a Path Array - Using the Rotate Command - Using the Offset Command
5-Modify Objects - Alteration Commands	- Introducing Alteration Commands - Breaking an Object At One Point - Breaking an Object Between Two Points - Using the Trim Command - Using the Extend Command - Using Extend and Trim Together - Using the Fillet Command - Fillet Radius - Using the Chamfer Command - Distance and Angle - Using the Join Command - Using the Explode Command - Using the Scale Command - Using the Stretch Command
6-Utility and Inquiry Tools	- Introducing the Measure Tools - Measuring Distance - Measuring Radius - Measuring Angles - Measuring the Area of a Space - Measuring the Area of an Object - Using the Quick Calculator
7-Managing Layers	- Introducing Layer Concepts - Establishing the Current Layer - Understanding Layer States - On/Off - Understanding Layer States - Thaw/Freeze - Understanding Layer States - Unlock/Lock - Introducing the Layer Property Manager Palette - Creating a New Layer - Deleting a Layer - Adding a Layer Description - Controlling Layer Properties - Color - Controlling Layer Properties - Linetype - Controlling Layer Properties - Transparency

4

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies

	▪ Controlling Layer Properties - Plot/No Plot
	▪ Changing an Object to the Different Layer
	▪ Deleting a Layer and Its Contents
8-Object Properties	▪ Understanding ByLayer and Object Property Concepts
	▪ Setting the Color ByLayer
	▪ Setting the Linetype ByLayer
	▪ Setting the Lineweight ByLayer
	▪ Setting the Transparency ByLayer
	▪ Controlling the Object Color
	▪ Controlling the Object Linetype
	▪ Controlling the Object Lineweight
	▪ Controlling the Object Transparency
	▪ Modifying Properties Using the Property Panel and Layer Panel
9-Complex Objects	▪ Understanding Polyline Property Concepts
	▪ Drawing Polylines - Line Segments
	▪ Drawing Polylines - Arc Segments
	▪ Drawing Donuts
	▪ Drawing Polygons - Inscribed
	▪ Drawing Polygons - Circumscribed
	▪ Drawing Polygons - Edge
	▪ Editing Polylines - Close/Open
	▪ Editing Polylines - Converting Lines into Polylines
	▪ Exploding Polylines
	▪ Drawing Ellipses - Center
	▪ Drawing Ellipse - Axis End
	▪ Drawing Points
	▪ Understanding Point Styles
	▪ Drawing Splines
	▪ Creating Regions
	▪ Creating Boundaries
	▪ Creating Revision Clouds
10-Annotation Objects	▪ Understanding Annotation Object Concepts
	▪ Creating Single-Line Text
	▪ Creating Text Styles
	▪ Modifying Text Styles
	▪ Introducing Hatches and Gradient Fills

	- Adding Hatch Objects
	- Selecting the Hatch Pattern to Apply
	- Setting the Scale and Angle of the Hatch Pattern
	- Modifying Existing Hatch Objects
	- Adding Gradient Fills
11-Dimensioning	- Introducing Dimensioning Concepts
	- Creating Linear Dimensions - Horizontal and Vertical
	- Creating Linear Aligned Dimensions
	- Creating Angular Dimensions
	- Dimensioning Circles and Arcs - Radius and Diameter Dimensions
	- Dimensioning Circles and Arcs - Arc Length Dimensions
	- Controlling the Appearance of Dimensions - Dimension Styles
	- Creating New Dimension Styles
	- Applying a New Dimension Style
12-Print and Plot Preparation	- Introducing Print and Plot Concepts
	- Understanding Drawing Spaces - Model and Paper Space
	- Creating Layout Viewports
	- Controlling Viewport Display
	- Printing the Drawing
	- Choosing a Printer
	- Controlling Plot Options and Orientation
13-3D Basics	- Introducing 3D Concepts
	- Introducing the 3D Workspace
	- Introducing 3D Viewing Tools - The ViewCube
	- Introducing 3D Viewing Tools - 3D Orbit
	- Introducing 3D Viewing Tools - View Presets
	- Using 3D Object Snap
	- Understanding Visual Styles
	- Understanding 3D Coordinate Systems
	- Manipulating the User Coordinate System
	- Understanding Dynamic UCS

6

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal
Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org
Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies

	14-Creating 3D Objects	▪ Creating a Solid Box ▪ Creating a Solid Cylinder ▪ Creating a Solid Cone ▪ Creating a Solid Sphere ▪ Creating a Solid Pyramid ▪ Creating a Solid Wedge ▪ Creating a Solid Torus ▪ Using Gizmos ▪ Creating 3D Objects by Extruding 2D Objects ▪ Creating 3D Objects by Revolving 2D Objects ▪ Creating 3D Objects by Lofting 2D Objects ▪ Creating 3D Objects by Sweeping 2D Objects ▪ Creating 3D Objects Using Polysolid ▪ Creating 3D Objects Using Press/Pull
7	**15-Modifying 3D Objects**	▪ Editing Solid Primitives ▪ Creating Composite Solids - Boolean Operations ▪ Creating a Composite Solid Using Boolean Union ▪ Creating a Composite Solid Using Boolean Subtract ▪ Creating a Composite Solid Using Boolean Intersect

Pre-Requisite:

No prior knowledge of AutoCAD is assumed however Drafting, design, or engineering experience is a plus.

Duration: 2 Months

Schedule: 2 Days a Week

Mindscapes Technologies

Off # 01 , Mezzanine Floor, Park View Apt Near Usmania Resturant,13 A, Gulshan-e –Iqbal Karachi, Pakistan. Ph:(021)34810770   Mobile:-0300-3564990 Email: info@mstechnologies.org
Website: www.mstechnologies.org Facebook: www.facebook.com/MindscapesTechnologies