education@ideate

AutoCAD Fundamentals

3 DAYS

21 LUs*

This course provides you with the skills needed to start using AutoCAD® from scratch and working productively in AutoCAD. You will learn how to navigate the AutoCAD interface including ribbon tabs and how to use AutoCAD commands. We will teach you how to create your own drawing by teaching you how to draw and edit AutoCAD objects such as line, arc, circle, rectangle, etc. You will also learn the concept of layers and how to manipulate layer states, the concept of blocks and how to use blocks. And more importantly, you will know how to annotate your drawing using tool such as text, dimensions, leaders and hatching. And finally, you will learn how to plot your drawing and know the concept of model space and paper space.

Prerequisites: Students must have a basic understanding of Microsoft Windows, file navigation and a fundamental understanding of drafting concepts.

Register Online: Click here.

Autodesk®
Authorized Training Center

Visit www.ideateinc.com for a complete class schedule.
Or call our Training Department at 888.662.7238.

Training Facilities

San Francisco

San Jose

Sacramento

Portland

Seattle

Click here for training facility addresses and lab hours.

Course Objectives

The primary objective of our Fundamentals training course is to gain the basics for everyday use of AutoCAD-based software. Whether you are learning AutoCAD to be able to effectively use it on a regular basis or simply need to be able to navigate around a drawing file; this course teaches you the basics. This includes understanding the interface and drawing area; drawing objects such as lines, arcs and circles effectively and accurately; using modification tools for rotating, copying, scaling and trimming objects. This course also teaches drawing units and the basics of drawing organization.

Upon completion of this course, students should have:

The fundamental and working knowledge of how to navigate through the interface; how commands work in AutoCAD -based products.

The ability to draw simple objects, modify them and the ability to check drawings for information, such as areas and distances.

The knowledge to use existing drawings as well as start new drawings from scratch by using drawing templates.

Knowledge of Layers and AutoCAD blocks.

The basics of AutoCAD annotation such as text, dimensions, leaders and hatching.

The understanding of drawing units and accurate and quick drawing skills.

The fundamentals of AutoCAD plotting and model space and paper space concept.

Who Should Attend

This class is recommended for any user who wants to get started with AutoCAD or AutoCAD LT. Whether you want to learn AutoCAD for drafting or just being able to open files, make minor changes and plot them. Whether you will work on AutoCAD full time or part time, this class for you. It will enable you to start using AutoCAD fearlessly. This class is also perfect for one who wishes to advance to AutoCAD based products, such as AutoCAD Architecture, AutoCAD MEP, AutoCAD Map and AutoCAD Civil 3D.

*This class qualifies for AIA/ CES Learning Units.

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Day 1

Getting Started with AutoCAD
- Starting AutoCAD
- The AutoCAD User Interface
- Working with Commands
- The AutoCAD Cartesian Workspace
- Opening an Existing Drawing File
- Viewing Your Drawing
- Saving Your Work

Basic Drawing and Editing Commands
- Drawing Lines
- Erasing Objects
- Drawing Lines with Polar Tracking
- Drawing Rectangles
- Drawing Circles
- Undo and Redo Actions

Project Exercise – Creating a Simple Drawing
- Create a Simple Drawing
- Create Simple Shapes

Drawing Precision in AutoCAD
- Using Running Object Snaps
- Using Object Snap Overrides
- Polar Tracking at Angles
- Object Snap Tracking
- Drawing with Snap and Grid

Making Changes in Your Drawing
- Selecting Objects for Editing
- Moving Objects
- Copying Objects
- Rotating Objects
- Scaling Objects
- Mirroring Objects
- Editing with Grips

Project Exercise – Making Your Drawings More Precise
- Schematic, Mechanical and Architectural Projects

Day 2

Organizing Your Drawing with Layers
- Creating New Drawings with Templates
- What are Layers
- Layer States
- Changing an Object's Layer

Advanced Object Types
- Drawing Arcs
- Drawing Polylines
- Editing Polylines
- Drawing Polygons
- Drawing Ellipses

Getting Information from Your Drawing
- Working with Object Properties
- Measuring Objects

Project Exercise – Drawing Organization and Information
- Architectural Project
- Mechanical Project
- Civil Project

Advanced Editing Commands
- Trimming and Extending Objects
- Stretching Objects
- Creating Fillets and Chamfers
- Offsetting Objects
- Creating Arrays of Objects

Inserting Blocks
- What are Blocks
- Inserting Blocks
- Working with Dynamic Blocks
- Inserting Blocks with DesignCenter
- Inserting blocks with Content Explorer

Project Exercise – Creating More Complex Objects
- Mechanical, Architectural and Civil Projects

Day 3

Setting Up a Layout
- Printing Concepts
- Working in Layouts
- Copying Layouts
- Creating Viewports
- Guidelines for Layouts

Printing Your Drawing
- Printing Layouts
- Printing from the Model Tab

Project Exercise – Preparing to Print
- Mechanical and Architectural Projects

Text
- Working with Annotations
- Adding Text in a Drawing
- Modifying Multiline Text
- Formatting Multiline Text
- Adding Notes with Leaders to Your Drawing
- Creating Tables
- Modifying Tables

Hatching
- Hatching
- Editing Hatches

Adding Dimensions
- Dimensioning Concepts
- Adding Linear Dimensions
- Adding Radial and Angular Dimensions
- Editing Dimensions

Project Exercise – Annotating Your Drawing
- Mechanical, Architectural and Civil Projects

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