



AutoCAD 2009

150 hours

Course Overview/Description

If you're seeking AutoCAD Certification, this AutoCAD 2009 Online program Certification Training Program is an essential tool. AutoCAD 2009 is used in many industries, including mechanical and civil engineering, architecture, and facilities planning and management. More employers are using AutoCAD than any other computer-aided design system, and those employers need skilled employees.

First released in 1982, AutoCAD is now the leading program for computer-aided design (CAD) throughout the world. This Online Certification Training Program takes a step-by-step approach to learning the 2D tools associated with AutoCAD 2009, starting with a few basic tools to let you create and edit a simple drawing, and then gradually introducing more advanced tools. Examples and practice exercises are taken from a variety of the fields where AutoCAD is used.

Once you master the basic skills, you'll move on to explore efficiency tools, complex objects, using external reference and image files, advanced plotting, and enhancing productivity with simple customization. This program focuses only on the 2D tools; 3D tools aren't discussed. As part of this program, you'll receive the required textbook and a 13-month student license for AutoCAD 2009.

Upon registering, you're given an initial nine months to complete the program. Should you need more time, you may request a six-month program extension at no additional charge. Please note that the software license for AutoCAD 2009 cannot be extended.

Course Objectives

By completing this program, you'll learn to:

- Create accurate dimensioned drawings
- Setup drawings to plot
- Build a library of symbols that can be reused
- Develop template files with standard settings
- Coordinate reference drawings

Course Outline

AutoCAD 2009 Level 1

I. Getting Started with AutoCAD

- A. Starting AutoCAD
- B. AutoCAD's User Interface
- C. Working with Commands
- D. Opening an Existing Drawing File
- E. Saving Your Work
- F. AutoCAD's Cartesian Workspace

II. Basic Drawing and Editing Commands

- A. Drawing Lines
- B. Erasing Objects
- C. Drawing Lines with Polar Tracking
- D. Drawing Rectangles
- E. Drawing Circles
- F. Viewing Your Drawing
- G. Undo and Redo Actions

III. Projects: Creating a Simple Drawing

IV. Drawing Precision in AutoCAD

- A. Using Running Object Snaps
- B. Using Object Snap Overrides
- C. Polar Tracking at Angles
- D. Object Snap Tracking
- E. Drawing with Snap and Grid (Optional)

V. Making Changes in Your Drawing

- A. Selecting Objects for Editing
- B. Moving Objects
- C. Copying Objects
- D. Rotating Objects
- E. Scaling Objects
- F. Mirroring Objects
- G. Editing with Grips

VI. Projects: Making Your Drawings More Precise

VII. Organizing Your Drawing with Layers

- A. Creating New Drawings With Templates
- B. What are Layers?

- C. Layer States
- D. Changing an Object's Layer

VIII. Advanced Object Types

- A. Drawing Arcs
- B. Drawing Polylines
- C. Editing Polylines
- D. Drawing Polygons
- E. Drawing Ellipses

IX. Getting Information from Your Drawing

- A. Measuring Objects
- B. Working with Object Properties

X. Projects: Drawing Organization and Information

XI. Advanced Editing Commands

- A. Trimming and Extending Objects
- B. Stretching Objects
- C. Creating Fillets and Chamfers
- D. Offsetting Objects
- E. Creating Arrays of Objects

XII. Inserting Blocks

- A. What are Blocks?
- B. Inserting Blocks
- C. Working with Dynamic Blocks
- D. Inserting Blocks Using DesignCenter

XIII. Projects: Creating More Complex Objects

XIV. Setting Up a Layout

- A. Printing Concepts
- B. Working in Layouts
- C. Copying Layouts
- D. Creating Viewports
- E. Guidelines for Layouts

XV. Printing Your Drawing

- A. Printing Layouts
- B. Printing a Check Plot

XVI. Projects: Preparing to Print

XVII. Text

- A. Working with Annotations

- B. Adding Text in a Drawing
- C. Modifying Multiline Text
- D. Formatting Multiline Text

XVIII. Hatching

- A. Hatching

XIX. Adding Dimensions

- A. Dimensioning Concepts
- B. Adding Linear Dimensions
- C. Adding Radial and Angular Dimensions
- D. Editing Dimensions
- E. Adding Notes to Your Drawing

XX. Projects: Annotating Your Drawing

XXI. Working Effectively with AutoCAD

- A. Setting Up the Application Window
- B. Creating a Custom Workspace
- C. Using the Keyboard Effectively
- D. Working in Multiple Drawings
- E. Using Grips Effectively
- F. Additional Layer Tools

XXII. Accurate Positioning

- A. Coordinate Entry
- B. Locating Points with Tracking
- C. Construction Lines
- D. Placing Reference Points

XXIII. Projects: Productivity Tools

XXIV. Creating Blocks

- A. Creating Blocks
- B. Editing Blocks
- C. Removing Unused Elements

XXV. Blocks in Tool Palettes

- A. Adding Blocks to Tool Palettes
- B. Modifying Tool Properties in Tool Palettes

XXVI. Projects: Creating and Organizing Blocks

XXVII. Creating Templates

- A. Why Use Templates
- B. Controlling Units Display

- C. Creating New Layers
- D. Adding Standard Layouts to Templates
- E. Saving Templates

XXVIII. Annotation Styles

- A. Creating Text Styles
- B. Creating Dimension Styles
- C. Creating Multileader Styles

XXIX. Projects: Drawing Setup and Utilities

XXX. Advanced Layouts

- A. Creating and Using Named Views
- B. Creating Additional Viewports
- C. Layer Overrides In Viewports
- D. Additional Annotative Scale Features

XXXI. DWF Printing and Publishing

- A. DWF Plotting and Viewing
- B. Publishing Drawing Sets

XXXII. Projects: Drawing (Optional)

AutoCAD 2009 Level 2

I. Advanced Text Objects

- A. Annotation Scale Overview
- B. Using Fields
- C. Controlling the Draw Order

II. Working with Tables

- A. Creating Tables
- B. Modifying Tables
- C. Working with Linked Tables
- D. Creating Table Styles

III. Projects: Advanced Annotation

- A. Fields and Tables
- B. Dynamic Blocks
- C. Working with Dynamic Blocks
- D. Creating Dynamic Block Definitions
- E. Dynamic Block Authoring Tools

IV. Attributes

- A. Inserting Blocks with Attributes
- B. Editing Attribute Values

- C. Defining Attributes
- D. Redefining Blocks with Attributes
- E. Extracting Attributes

V. Projects: Advanced Blocks and Attributes

- A. Dynamic Block Practice: Desk Unit
- B. Mechanical Attribute Project: Amplifier
- C. Architectural Attribute Project: Door Schedule

VI. External References

- A. Attaching External References
- B. Modifying External References
- C. Xref Specific Information
- D. Other Tools for Collaboration
- E. eTransmit
- F. Hyperlinks

VII Projects: Reference and Share Information

VIII. Introduction to Sheet Sets

- A. Overview of Sheet Sets
- B. Creating Sheet Sets
- C. Creating Sheets in Sheet Sets
- D. Adding Views to Sheets
- E. Importing Layouts to Sheet Sets

IX. Publishing and Customizing Sheet Sets

- A. Transmitting and Archiving Sheet Sets
- B. Publishing Sheet Sets
- C. Customizing Sheet Sets
- D. Custom Blocks for Sheet Sets

X. Projects: Sheet Sets

XI. Managing Layers

- A. Working in the Layer Properties Manager
- B. Creating Layer Filters
- C. Setting Layer States

XII. CAD Standards

- A. CAD Standards Concepts
- B. Configuring Standards
- C. Checking Standards
- D. Layer Translator

XIII. System Setup

- A. Options Dialog Box
- B. System Variables
- C. Dynamic Input Settings
- D. Drawing Utilities
- E. Managing Plotters
- F. Plot Styles

XIV. Introduction to Customization

- A. Why Customize?
- B. What Can Be Customized?
- C. Creating a Custom Workspace

XV. Customizing the User Interface

- A. Using the Customize User Interface (CUI) Dialog Box
- B. Creating Custom Toolbars
- C. Customizing the Ribbon
- D. Customizing Menus
- E. Keyboard Shortcuts

XVI. Macros and Custom Routines

- A. Custom Commands and Macros
- B. Running Scripts
- C. Action Recorder
- D. Editing Action Macros
- E. Loading Custom Routines

Prerequisites/Audience

Before enrolling in this program, you should have a basic knowledge of the Windows operating system and be comfortable installing software and loading files. You should have an Internet connection and e-mailing capabilities and be comfortable using the Internet.

This program is for you if you're interested in computer aided design and want to become proficient using AutoCAD 2009 software.

PC Requirements/Materials

The software for this program is incompatible with 64-bit Vista. If you are using 64-bit Vista, you will need to have access to the AutoCAD software on your own to complete the program. This program is compatible with 32-bit.



For 32-bit AutoCAD 2009:

Intel Pentium 4 processor; or AMD Athlon, 2.2 GHz or greater; or Intel or AMD Dual Core processor, 1.6 GHz or greater

Microsoft® Windows Vista, Windows® XP SP2 operating systems

- 1 GB RAM
- 750 MB free disk space for installation
- 1024x768 VGA with true color
- Microsoft Internet Explorer 6.0 (SP1 or higher)

For Microsoft Windows Vista or 3D modeling

- Intel Pentium 4 processor; or AMD® Athlon, 3.0 GHz or greater; or Intel or AMD Dual Core processor, 2.0 GHz or greater
- 2 GB RAM or greater
- 2 GB free hard disk available not including installation
- 1,280 x 1,024 32-bit color video display adapter (true color) 128 MB or greater, OpenGL®, or Direct3D® capable workstation class graphics card
- For Windows Vista, a Direct3D-capable workstation class graphics card with 128 MB or greater is required

Adobe Flash Player and Adobe Acrobat Reader are required for this program.

Go to <http://get.adobe.com/reader/> to download the Acrobat Reader.

Go to <http://get.adobe.com/flashplayer/> to download the Flash Player.

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Instructor Bio

Jennifer MacMillan holds a mechanical engineering degree from the Dalhousie University, Nova Scotia, Canada. She's been teaching CAD for 13 years and is currently working in a position developing training curriculum used by many CAD training companies. Jennifer has always enjoyed teaching and passing her knowledge and interest in CAD on to her students. Most recently she has found teaching online training classes very rewarding and inspiring because they enable so many successful students to learn new skills that they can immediately use in their jobs.