

# AutoCAD 2024 for Interior Designers

## Course Description

This course empowers interior designers with the essential skills to utilize AutoCAD 2024 effectively in their design projects. From basic navigation to advanced commands, participants will learn how to create precise floor plans, elevations, annotations, and schedules tailored to industry standards. Through hands-on tutorials and comprehensive guidance, students will gain proficiency in leveraging AutoCAD as a fundamental tool in their design workflow.

## Audience

This course is tailored for interior designers seeking to enhance their technical proficiency and streamline their design process using AutoCAD 2024. Whether beginners or experienced professionals, individuals looking to elevate their drafting skills and deliver precise design solutions will benefit from this course.

## Pre-requisite Knowledge/Skills

No prior experience with AutoCAD is required. Basic familiarity with computer operations and a passion for interior design are recommended.

## Course Objectives

- Upon completion of this course, participants will be able to:
- Navigate the AutoCAD interface efficiently, distinguishing between Mac and PC platforms.
- Create accurate drawings using fundamental commands such as Line, Circle, and Rectangle.
- Apply advanced drawing techniques including Offset, Trim, Extend, and Lengthen to refine designs.
- Organize drawings effectively using Layers, Blocks, and External References (Xrefs).
- Annotate drawings with Text, Dimensions, and Multileaders to communicate design intent clearly.
- Generate professional layouts for printing, utilizing Model Space, Paper Space, and Viewports.
- Develop comprehensive drawing sets, including schedules and annotations, for effective project documentation.
- Employ additional tools and techniques for advanced drafting, such as creating curves, rendering, and customizing the user interface.

# Course Outline

## Module 1: Introduction to AutoCAD

- Chapter 1: Getting Comfortable with AutoCAD
  - Introduction to AutoCAD
  - Hand Drawing vs. AutoCAD
  - Clarification and Ground Rules
  - The AutoCAD Screen
  - AutoCAD on the Mac
  - Status Bar icons
  - Toolbars
  - Toolbars on Mac
  - Command Line
  - Options – Screen Color & Right-Click
  - Customizing Screen Background Color
  - Customizing Screen Background Color for Mac
  - Customizing Right-Click
  - Customizing Right-Click for Mac
  - Navigation Controls: UCS Icon, Navigation Bar, and View Cube
  - Navigation Controls on the Mac
  - AutoCAD Help
  - Opening & Saving Drawings
    - Using the Pull-Down Menu
    - Selecting New...
    - Selecting Open
    - Selecting Close
    - Selecting Save
    - Selecting Save As...
    - File types
    - Look in:/Save in: and Favorites/Where: for Mac

## Module 2: Basic Setup and Commands

- Chapter 2: Setting-up and Intro to AutoCAD
  - Units
  - Three Easy Commands to Help Get You Started
    - Line
    - Circle
    - Erase

- Methods of Selecting Objects
  - Selection Window (LEFT to RIGHT)
  - Crossing Window (RIGHT to LEFT)
  - Removing Objects from the Selection Set
  - Grips
- Zoom & Pan
  - Zoom and Pan Using the Wheel Mouse
  - Typing the Zoom Command

### **Module 3: Project Tutorial 1: Hotel Suite**

- Chapter 3: Hotel Suite Project – Tutorial 1
  - Hotel Suite Project
  - Create the basic shell of the suite

### **Module 4: Advanced Drawing Commands**

- Chapter 4: Commands – Set 2: Working with Your Drawing
  - Getting Information from Your Drawing
    - Measure
    - Distance
    - Radius
    - Angle
    - List
  - Fillet – Creating Round or Sharp Corners
    - Setting the Fillet Radius
    - Trim Option
    - Selecting Objects to Fillet
    - Importance of Pick Location
  - Chamfer – Creating Beveled Edges
    - Setting the Chamfer Distance
  - Manipulating Existing Objects
    - Move
    - Copy
    - Rotate
    - Mirror
  - Array Commands
    - Rectangular Array
    - Count Option
    - Spacing Option

- Polar Array

## **Module 5: Layout and Printing**

- Chapter 5: Commands – Set 3: Laying-out Your Drawing for Printing
  - Model Space & Paper Space
    - Model Space
    - Paper Space
  - Viewports
    - Viewports Tool
    - Re-Sizing a Viewport
    - Access Model Space while in a Layout
    - Create and Modify Model Space Objects in a Layout
    - Adjust the Position and Scale of Model Space Objects in a Viewport
    - Lock the Scale of Layout Viewports
  - Plotting from Paper Space
    - Page Setup Manager
    - Plotting/Printing Your Drawing
    - Model & Layout Tabs
    - Renaming a Layout
    - Renaming Layouts for Mac
    - Adding a Layout
    - Adding a Layout for Mac
    - Add Layout from Template
    - Add Layout from Template for Mac
    - Deleting Layouts

## **Module 6: Object Management and Organization**

- Chapter 6: Commands – Set 4: Re-Using Objects and Getting Organized
  - Blocks – Treating Multiple Objects as One
    - Making Blocks
    - Inserting Blocks
    - Inserting Blocks on Mac
  - Design Center
    - Using Design Center
    - Bring Blocks into Your Drawing
    - Bring Styles, etc. into Your Drawing
  - Blocks Palette for Mac
    - Adding Block Libraries for Mac

- Bring Blocks into the Drawing on Mac
- Xrefs
  - Attaching a drawing as a Reference
  - Clipping the visible area of a Reference
  - Editing a Reference
  - External Reference Manager – Detach and Reload
- Layers
  - Layer Properties Manager
  - Creating a New Layer
  - Visibility of Layers
  - Assigning a Color to the Layer
  - Assigning a Linetype to the Layer
  - Linetype Scale
  - Current Layer
- Properties
  - Changing Object Properties
- Lineweight

## **Module 7: Project Tutorial 2: Hotel Suite**

- Chapter 7: Hotel Suite Project – Tutorial 2
  - Create the Bathroom Walls
  - Create the Closet Walls
  - Create the Doors and Windows

## **Module 8: Annotating and Dimensioning**

- Chapter 8: Commands – Set 5: Annotating Your Drawing
  - Text
    - Text Style
    - Multiline Text
    - Single Line Text
    - Editing Text
    - Relocating Text
    - Special Characters
    - Scaling Text
  - Dimensions
    - Dimension Style
    - Using Dimensions
    - Linear Dimension

- Aligned Dimension
- Radius Dimension
- Angular Dimension
- Diameter Dimension
- Modifying Existing Dimensions
- Multileader
  - Multileader Style
  - Inserting a Multileader on Your Drawing

## Module 9: Project Tutorial 3: Hotel Suite

- Chapter 9: Hotel Suite Project – Tutorial 3
  - Create a Layout for Plotting
  - Create a Drawing Format
  - Create a Template Drawing

## Module 10: Creating Schedules and Advanced Techniques

- Chapter 10: Commands – Set 6: Creating and Editing Schedules
  - Tables – Creating a Schedule
    - Creating a Table Style
    - Table Title
    - Table Header
    - Table Data
  - Inserting Tables on the Drawing
  - Editing an Existing Table

## Module 11: Creating Curves and Rendering

- Chapter 11: Commands – Set 7: Creating Curves and Rendering
  - Arc
  - Ellipse
  - Polyline
  - Spline
  - Hatch
  - Section Views
  - Rendering
    - Gradient Hatch

## Module 12: Miscellaneous Techniques and Customization

- Chapter 12: Miscellaneous – Techniques, Commands, and Options

- Helpful Hints
- Finding the Center of a Rectangle
- Divide
- Break & Break at Point
- Polygon
- Stretch
- Scale
- Reference Option
- Cut (or Copy)/Paste – Using the Clipboard
- Changing Objects from Model Space to Paper Space
- Tracing Pictures
- Circle Options

- Define the Circle with 3 points
- Define the Circle with 2 points
- Tan Tan Radius

- Rectangle Options

- Chamfered Corner Rectangle
- Filleted Corner Rectangle

- Offset Options

- AutoCAD Calculates Distance
- Through Option

- Drafting Settings

- Snap and Grid
- Ortho and Polar
- Customize User Interface - PC
- Customize User Interface - Mac