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# AutoCAD Basics

## Course Objective

- Understand the fundamental concepts and features of AutoCAD.
- Develop proficiency in navigating and utilizing the AutoCAD interface.
- Learn to create, modify, and annotate 2D drawings.
- Gain knowledge of basic drawing tools and commands.
- Develop skills to produce accurate and detailed technical drawings.

## Course Outcome

- Demonstrate the ability to navigate and utilize the AutoCAD interface efficiently.
- Create and modify 2D drawings using basic AutoCAD tools and commands.
- Apply dimensions and annotations to drawings accurately.
- Understand and implement layers, blocks, and other organizational tools in AutoCAD.
- Produce professional-quality technical drawings suitable for various applications.

## Course Duration

- Total Duration: 40 hours
- Lectures: 20 hours
- Hands-on Practice: 15 hours
- Assessments and Reviews: 5 hours
- Mode: Online/On-site depending on the preference

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## Topics to be Covered

### **Module 1: Introduction to AutoCAD**

- Overview of AutoCAD and its applications
- Navigating the AutoCAD interface
- Understanding the workspace and user preferences

### **Module 2: Basic Drawing Tools**

- Drawing lines, circles, arcs, and other basic shapes
- Using the coordinate system
- Creating and editing polylines

### **Module 3: Modifying Tools**

- Move, copy, rotate, and scale objects
- Using the trim and extend commands
- Mirror, offset, and array functions.

### **Module 4: Layers and Object Properties**

- Understanding layers and layer properties
- Managing layers and layer states
- Assigning and modifying object properties

### **Module 5: Annotation and Dimensioning**

- Adding text to drawings
- Creating and modifying dimensions
- Using multileader and tables

### **Module 6: Blocks and Groups**

- Creating and inserting blocks
- Managing block definitions
- Grouping objects for easy manipulation

### **Module 7: Layouts and Printing**

- Understanding model space and paper space
- Creating and managing layouts
- Setting up plot configurations and printing drawings