

AutoCAD 2D & 3D Course – 3-Month

Month 1: Fundamentals of AutoCAD 2D

Week 1: Introduction to AutoCAD & Interface

- Understanding the AutoCAD workspace
- Navigation, tools, and commands
- Setting up a new drawing

Week 2: Basic 2D Drafting & Editing

- Drawing lines, circles, arcs, and polygons
- Modifying objects (move, copy, rotate, trim, extend)
- Using layers, line types, and colors

Week 3: Dimensions, Annotations & Object Properties

- Applying dimensions and text
- Adding hatches and fills
- Using blocks and attributes

Week 4: Advanced 2D Techniques & Plotting

- Working with templates and layouts
 - Plotting and printing drawings
 - Exporting files in different formats
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Month 2: Introduction to AutoCAD 3D

Week 5: Basics of 3D Modeling

- Understanding 3D workspace and navigation
- Creating basic 3D objects (box, sphere, cylinder)
- Extruding and revolving 2D sketches

Week 6: Advanced 3D Modeling

- Working with Boolean operations (union, subtract, intersect)
- Using loft and sweep commands
- Editing and modifying 3D objects

Week 7: Materials, Lighting & Rendering

- Applying materials and textures
- Setting up lights and shadows
- Basic rendering techniques

Week 8: Working with Layouts & Presentations

- Creating 2D views from 3D models
 - Using annotation and dimensioning in 3D
 - Preparing models for presentation
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Month 3: Advanced Techniques & Final Project

Week 9: Parametric Design & Dynamic Blocks

- Using constraints and parameters
- Creating reusable dynamic blocks
- Customizing tool palettes

Week 10: CAD Standards & Productivity Tools

- Setting up layers and templates
- Using productivity tools and shortcuts
- Managing large projects efficiently

Week 11: Final Project – 2D & 3D Design

- Applying all learned techniques to a real-world project
- Drafting a complete 2D plan and 3D model
- Reviewing and optimizing designs

Week 12: Review & Certification (If Applicable)

- Recap of key concepts
- Troubleshooting and Q&A
- Course completion and feedback

This structured plan ensures a step-by-step progression from basic to advanced AutoCAD skills, making it ideal for beginners and professionals alike