

AutoCAD Mechanical & Drafting

A professional mechanical drafting course covering engineering drawing standards, machine component design, manufacturing drawings, GD&T, sheet metal drafting, and production documentation using AutoCAD Mechanical — preparing students for roles in manufacturing, automobile, fabrication, and engineering industries.

Duration 6 Months	Training Mode Offline Classroom Training	Certification Industry Certificate	Practical Labs 100% Hands-on
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Tools & Tech: AutoCAD • AutoCAD Mechanical Toolset • BIS & ISO Standards

Detailed Course Curriculum & Modules

MODULE 01 Engineering Drawing Fundamentals - BIS & ISO Drawing Standards, Line Types & Drawing Sheets - Orthographic, Isometric, First & Third Angle Projection - Engineering Scales, Symbols & Conventions - Manufacturing Processes Overview & Engineering Materials - Standard Fasteners, Fits & Tolerances - Surface Finish Symbols & Welding Symbols	MODULE 02 AutoCAD Core & Precision Tools - AutoCAD Interface, Workspace, Units & Coordinate Systems - Drawing Tools: Line, Polyline, Circle, Arc, Rectangle, Hatch - Editing Tools: Move, Copy, Rotate, Mirror, Scale, Offset, Trim, Chamfer, Array - Precision Drawing with OSNAP, Polar Tracking & Dynamic Input - Layers, Templates & Object Properties Management
MODULE 03 AutoCAD Mechanical Toolset - Mechanical Interface, Toolsets & Standards Configuration - Standard Parts Library: Fasteners, Bearings, Keys, Springs, Gears & Shafts - Centerlines, Center Marks, Construction Lines & Detail Views - Section Views, Balloons, Parts Lists & Mechanical Dimensions - Mechanical Templates & Layer Standards	MODULE 04 Dimensioning, GD&T; & Tolerances - Linear, Angular, Radius, Baseline, Chain & Ordinate Dimensions - GD&T; Fundamentals: Datum Features & Feature Control Frames - Position, Flatness, Parallelism, Perpendicularity & Runout Tolerances - Limits & Fits: Hole Basis, Shaft Basis, Clearance, Transition & Interference Fits
MODULE 05 Mechanical Component & Assembly Drafting - Machine Elements: Shafts, Gears, Pulleys, Couplings & Bearing Housings - Flanges, Brackets, Flywheels, Cranks & Connecting Rods - Fastener Drawings: Nuts, Bolts, Screws, Studs & Rivets - Assembly Drawings: Exploded Views, Constraints & Bill of Materials - Manufacturing & Production Drawings: Machining, Fabrication & Weldment	MODULE 06 Sheet Metal & Industrial Drafting - Sheet Metal Fundamentals: Bending Allowance & Flat Pattern Development - Brackets, Enclosures, Cabinets & Duct Components - Industrial Applications: Automobile, Heavy Machinery & HVAC Components - Equipment Installation Drawings & Workshop Drawings
MODULE 07 Documentation & Standards - Engineering Notes, Specifications & Revision Management - Title Blocks, Drawing Numbers & Standard Templates - BOM, Material List, Part List & Assembly Documentation - PDF Generation, Print Layouts & Plotting Standards	

Practical Projects & Industry Capstones

- Engineering Drawing Sheets
- Machine Component Drawings
- Shaft & Gear Assembly Design
- Bearing Housing & Coupling Assembly
- Bracket & Flange Design
- Complete Mechanical Assembly Drawing
- Sheet Metal Enclosure Design
- Fabrication Drawing
- Industrial Equipment Layout
- Complete Manufacturing Drawing Set

■ Industry Certification Authorized certificate verified globally via online portal.	■ 100% Placement Support Resume review, mock interviews, and recruiter connections.	■ Lab Access & Mentorship Dedicated workstation lab hours with expert guidance.
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