



TECHHUB SOLUTIONS

...be step ahead in your field

Auto CAD(2D & 3D)

Main Topic	Sub Topic
Introduction to AutoCAD & Getting Started with AutoCAD	Starting AutoCAD, AutoCAD Screen Components, AutoCAD Dialog Boxes Starting a New Drawing, Saving your work, Closing a Drawing, Quitting AutoCAD, Dynamic Input Mode, Understanding the Concept of Sheet Sets AutoCAD's Help, Drawings Lines, Coordinate Systems(Absolute Coordinate System, Relative Coordinate System), Erasing object, Object Selection Methods Drawing Circles, Basic Display Commands, Setting Units, Introduction to Plotting Drawings
Starting with the Advanced Sketching	Arcs, Rectangles, Ellipses, Elliptical Arcs, Regular Polygons, Polylines, Donuts Points, Infinite Lines, XLINE, RAY, Writing a single Line Text
Working with Drawing Aids	Understanding the Concept and Use of Layers, Working with Layers, LWEIGHT Command, Object Properties, Global and Current Line type Scaling, LTSCALE Factor for Plotting, Drafting Setting Dialog Box, Drawing Straight Lines Using the Ortho Mode, Working with Object Snaps, Running Object Snap Mode, Using Auto Tracking, Function and Control Keys
Editing Sketched Objects-I	Editing sketches, Move, Copy, Paste, Offset, Rotate, Fillet, Trim, Extend, Stretch, Lengthen, Array (Rectangular & Polar), Mirror, Break, Measuring, Divide, Join
Editing Sketched Objects-II	Editing with Grips, Types of Grips, Adjusting Grip Setting, Editing Objects with Grips, Loading Hyperlinks, Editing Gripped Objects, Changing Properties Using the Properties Palette, Changing Properties Using Grips, Matching Properties of Sketched Objects, Managing Contents Using the Design Center, Basic Display Options, Redrawing the Screen, Regenerating the Drawings, Zooming Drawings, Panning Drawings, Placing Views on a sheet of a Sheet set, Aerial View
Creating Text and Tables	Annotation Scale, Entering Special Characters, Creating Multiline Text, Editing Text, Inserting Table in the Drawing, Creating a New Table Style, Modifying Tables, Creating Title Sheet
Basic Dimensioning , Geometric Dimensioning , and Tolerancing	Dimensioning in AutoCAD, Associative Dimensions, Annotative Dimensions Selecting Dimensioning Commands, Linear Dimensions, Aligned, Arc Length Rotated, Baseline, Continued, Angular, Diameter, Jogged, Radius, Jogged Linear Generating Center Marks and Centrelines, Ordinate Dimension, Dimensions Breaks, Inspection Dimensions, Drawing Leaders, Multileaders, Adding Leaders to the Existing Multileaders, Aligning Multileaders, Attaching Multiple Notes to single Landing, Geometric Dimensioning and Tolerancing, Geometric Characteristic and Symbols, Adding Geometric Tolerance, Creating Annotative Dimensions, Tolerances, Leaders, and Multileaders
Editing Dimensions & Viewports, Layouts	Editing Dimensions, Modifying the Dimensions, Editing Dimensions Text Updating Dimensions, New Dimensions Style Dialog Box, Controlling Dimension Text Format, Using Dimension Style Overrides, Modify Multileader Style Dialog Box Viewports, Making a Viewport Current, Joining Two Adjacent Viewports, Editing Viewports, Manipulating the Visibility of Viewport Layers, Defining Page Settings, Working with the MVSETUP Command

Plotting Drawings & Hatch Patterns	Plotting Drawings, Using Plot Styles, Plotting Sheets in a Sheet Set Hatching, Hatch and Gradient Dialog Box Options, Creating Annotative Hatch Hatching Drawings Using the Tool Palettes, Editing Hatch Boundary Line type Definitions, Alternate Line types, Modifying Line types, Complex Line types, Hatch Pattern Definition
Working with Blocks & Advanced Drawing Options	Formation of Blocks, Converting Entities into a Blocks, Inserting Blocks, Layers, Colors, Line types and Line weights for Blocks, Editing Blocks, Renaming Blocks, Defining the Multiline Style, Drawing Multiline, Editing Multilines, Revision Clouds, Wipeouts, Editing Splines, Editing Polylines, Understanding the Concept of Data Exchange in AutoCAD, Creating Data Interchange (DWG) Files
Technical Drawing with Auto CAD & Isometric Drawings & UCS	Multiview Drawings, Orthographic Projections, Sectional Views, Auxiliary Views Detail Drawing, Assembly Drawing, and Bill of Materials Isometric Drawing, Isometric Projections, Isometric Axes and Planes, Drawing, Isometric Circles, Dimensioning Isometric Objects, Isometric Text The Word Coordinate System (WCS), Controlling the visibility of the UCS Icon, Defining the New UCS, Dynamic UCS, Managing the UCS through the Dialog Box, System Variables
Getting Started with 3D	Starting Three-Dimensional (3D) Modeling Environment in AutoCAD, Use of Three-Dimensional Drawing, Types f 3D Models, 3D Coordinate Systems, Trim, Extend, and Fillet Commands in 3D, Setting Thickness and Elevation for the New Objects, Suppressing the Hidden Edges, Creating 3D Polylines, Converting Wireframe Models into Surface Models(Creating 3D Faces, Creating Polyface Meshes, Controlling the Visibility of the 3D Face Edges), Directly Creating the Surface Models(Ruled Surfaces, Tabulated Surfaces, Revolved Surfaces, Four-sided Polygon Mesh), Creating Planar Surfaces, The 3DMESH Command
Creating Solid Models	Creating Predefined Solid Primitives, Box, Cone, Cylinder, Sphere, Torus, Wedge, Pyramid, Polysolid, Helix, Creating Complex Solid Models, Creating Regions, Creating Complex Solid Models by Applying Boolean Operations, Combine, Subtract, Intersect, Cheacking Interference in Solids, Extruded Solids, Revolved Solids, Lofted Solids, Sweep Solids
Modifying 3D Objects	Filleting Solid Models, Chamfering Solid Models, Rotating Solid Models in 3D Space, Rotating Solid Models About an Axis, Mirroring Solid Models in 3D Space Moving Models in 3D Space, Creating Arrays in the 3D Space, Aligning Solid Models, Aligning Solid by Defining an Alignment Plane, Extracting Edges of the Solid Model, Converting Object to Solids, Converting Surfaces to Solids, Slicing Solid Models, Creating the Cross-Sections of the Solids
Editing and Dynamic Viewing of 3D Objects Rendering and Animation Designs & Template Drawings	Editing Solid Models, Generating a Section by Defining a Section Plane, Mass Properties of the Solid Models, Dynamic Viewing of 3D Object, Recording Your Drawing Steps Using Action Recorder, Using show Motion for Presentation Purpose, Playing the Animation* Understanding the Concept of Rendering, Selecting and Attaching the Materials, Understanding Elementary Rendering, Adding Lights to the Design, Creating New Materials, Modifying Material, Controlling the Rendering Environment, Saving Rendering, Plotting Rendered Images, Creating Animations Creating Template Drawings, Standard Template Drawings, Loading a Template Drawing, Customizing Drawings with Layers and Dimensioning Specifications, Customizing Drawings with Viewports.

Civil Building planning and drawing	introduction to building drawing
brief history of building drawing	different types of buildings
residential buildings	exercise – 1 planning house drawing rough sketch
Institutional buildings	floor plan
different types off residential buildings	detached house semi-detached house
duplex type house	drawing ground floor 1 st floor 2 nd floor
principles of planning of building	residential house public buildings
elevations	1 st floor 2 nd floor elevation
door drawings windows	door elevation windows