JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

CAD 2D Drafting Training Course for Engineers and Technicians

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

CAD 2D Drafting Training Course for Engineers and Technicians

CAD 2D Drafting is a 1-week training course for engineers, draughtspersons and technicians who produce or check engineering drawings, and it ends with a dimensioned drawing set ready for issue. Projects still depend on accurate plans, sections and details that contractors, fabricators and inspectors can read without query, so drafting errors travel straight into cost and rework. Jupiter Prime Training treats CAD 2D Drafting as a discipline of precision, clarity and drawing control.

Why CAD 2D Drafting Matters Now

Three pressures shape drafting work today: compressed design schedules that leave little time to redraw, contractors and fabricators who build directly from issued sheets, and clients who expect consistent drawing sets across every discipline. Precise drafting means sheets issued once; loose drafting means conflicting dimensions and wrong scales. The course rests on recognised international technical drawing conventions for line types, projection, dimensioning and lettering, applied through a disciplined CAD workflow.

Who Gains Most from CAD 2D Drafting

- Drafting staff who turn sketches and calculations into scaled plans, sections and details
- Site and design engineers who mark up, check and approve drawings before issue
- Technicians who prepare shop drawings and fabrication details
- Maintenance planners who update existing plant and building drawings after modifications
- Document controllers who receive, register and issue drawing revisions

A small drawing office or engineering section gains most when its draughtspersons and checking engineers attend together and agree one drafting method.

CAD 2D Drafting Capabilities

Participants move from drawing lines on screen to scaled, dimensioned sheets a fabricator can build from.

- Configure drawing units, limits, grid and object snaps for each discipline — drawing office set-up
- Apply precision drawing and editing commands to build accurate geometry — design accuracy
- Specify linear, angular, radial and ordinate dimensions with tolerances — fabrication and inspection
- Build annotation, hatching and leader notes that read clearly at plot scale — site readability
- Design paper space layouts with viewports, scales and title blocks — drawing issue
- Test plotted output against line weight and scale checks — checking engineers

Key CAD 2D Drafting Terms

- Model Space — the full-size drawing area where geometry is drawn at real-world units before any sheet is composed.
- Paper Space Layout — the sheet view where viewports, title blocks and notes are arranged for plotting at a set scale.
- Viewport Scale — the ratio between model geometry and the printed sheet, such as one to fifty for building plans.
- Object Snap — a drawing aid that locks the cursor to exact points such as endpoints, midpoints, centres and intersections.
- Associative Dimension — a dimension linked to geometry so its value updates automatically when the object is moved or stretched.
- Plot Style — a set of rules that assigns printed line weight, colour and screening to drawing objects at output.

CAD 2D Drafting Day by Day

Day 1: Drawing Office Context and Set-Up

- Engineering Drawing Conventions — Choosing Projection, Line Types and Views
- Drawing Units and Limits — Matching Model Precision to the Discipline
- Interface and Command Entry — Speeding Routine Drafting Tasks
- Coordinate Input Methods — Placing Absolute, Relative and Polar Points
- Drafting Aids and Object Snaps — Locking Geometry to Exact Points

Day 2: Precision Geometry and Editing

- Lines, Arcs, Circles and Polylines — Building Accurate Profiles
- Offset, Trim and Extend — Refining Plans and Sections Quickly
- Array, Mirror and Rotate — Repeating Elements Without Error
- Fillet, Chamfer and Break — Detailing Corners and Junctions
- Grips and Property Editing — Correcting Geometry During Checking

Day 3: Dimensioning and Annotation

- Dimension Styles — Setting Arrowheads, Text Height and Precision
- Linear, Angular and Radial Dimensions — Describing Parts for Fabrication
- Ordinate Dimensions and Tolerances — Controlling Fit for Fabricators
- Text Styles, Leaders and Notes — Writing Instructions Readable on Site
- Hatch Patterns and Section Fills — Distinguishing Materials in Sections

Day 4: Layouts, Scales and Output

- Paper Space Layouts and Viewports — Composing Multi-View Sheets
- Annotative Scaling — Keeping Text Consistent Across Viewport Scales
- Title Blocks and Revision Tables — Recording Drawing Status for Issue
- Plot Styles and Line Weights — Producing Legible Printed and PDF Sheets
- Drawing Checking Routines — Catching Scale and Dimension Errors Before Issue

Day 5: Practising the Dimensioned Drawing Set

- Sample Brief Set-Up — Applying Units, Snaps and Templates to a Live Task
- Plan and Section Drafting — Applying Precision Editing to Real Geometry
- Detail Dimensioning — Applying Dimension Styles to Fabrication Details
- Sheet Composition — Applying Viewports and Title Blocks to the Set
- Dimensioned Drawing Set — Completing the Issue-Ready Work Product

Applying CAD 2D Drafting After the Course

- Set up a shared drawing template with units, dimension styles, text styles and a title block, then test it on the next drawing issued by the section
- Lead a checking routine on one live drawing set, recording scale, dimension and annotation errors and agreeing corrections with the drafter

CAD 2D Drafting Questions FAQ

What is CAD 2D Drafting and why does it matter now?

CAD 2D Drafting is the production of scaled plans, sections and details on computer. It matters now because contractors and fabricators build directly from issued sheets, so precise sheets save rework on construction and manufacturing projects.

Which roles gain most from CAD 2D Drafting training?

Draughtspersons, design and site engineers, fabrication technicians and maintenance planners gain most. They create, mark up or update engineering drawings, so a shared drafting method raises accuracy across every sheet their section issues.

How does CAD 2D Drafting differ from a 3D modelling or BIM course?

It focuses on accurate two-dimensional sheets rather than solid models or building information. This course builds the plans, sections and layouts that most fabrication and site work still uses.

What do you bring back from CAD 2D Drafting?

You bring back a dimensioned drawing set built on a sample brief, with a configured template, dimension and text styles, scaled layouts and a title block. It can serve as the reference standard for your next drawing issue.

CAD 2D Drafting: The Way Forward

The dimensioned drawing set first informs the decision on which template and dimension styles the section adopts as its default. Draughtspersons use it to start new sheets, and checking engineers use it to judge issued drawings. After its first use on a live project, revisit plot scales and annotation sizes against feedback from site and fabrication teams.