JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

CAD for Electrical and MEP Drawings Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

CAD for Electrical and MEP Drawings Training Course

CAD for Electrical and MEP Drawings is a 1-week training course for MEP engineers, draughtspersons and building services technicians, and it ends with a coordinated building services drawing package. Services now crowd ceiling voids and risers, so a tray drawn over a duct becomes a costly site clash. Jupiter Prime Training treats CAD for Electrical and MEP Drawings as fitting power, lighting, air and water into one buildable set.

Why CAD for Electrical and MEP Drawings Matters Now

Three pressures shape services drafting today: denser buildings that squeeze ducts, pipes and containment into tighter zones; consultants and contractors who exchange drawings at speed through shared folders; and facility operators who rely on accurate schematics long after handover. Consistent offices issue schedules and layouts installers trust; inconsistent ones issue conflicting symbols and clashing routes. The course rests on recognised international drawing conventions for electrical symbols, line types and duct and pipe notation, applied through layered CAD templates and shared symbol libraries.

Who Gains Most from CAD for Electrical and MEP Drawings

- Electrical drafters producing single-line diagrams, panel schedules and power layouts
- Mechanical drafters drawing ductwork, chilled water and drainage routes
- Services engineers who mark up, size and check drawings before issue
- Site technicians preparing shop drawings and installation details for contractors

A building services consultancy or a contractor's services drawing office gains most when electrical and mechanical drafters attend together.

CAD for Electrical and MEP Drawings Capabilities

Participants learn to produce discipline sheets that agree with each other on one background.

- Build single-line diagrams, distribution schematics and panel layouts — electrical design approval
- Design lighting, small power and containment plans with circuit references — installation contractors
- Specify HVAC duct and pipework layouts with sizes, levels and flow direction — mechanical installers
- Apply symbol libraries, layers and attribute blocks across disciplines — drawing office consistency
- Calculate and tabulate cable schedules and equipment lists from drawing data — procurement and testing
- Test coordinated services layouts for clashes in ceilings, risers and plant rooms — site coordination

Key CAD for Electrical and MEP Drawings Terms

- Single-Line Diagram — a simplified electrical drawing showing the path of power from supply through switchgear to final boards.
- Panel Schedule — a table listing each circuit on a distribution board with its load, protective device and cable size.
- Containment — the trays, trunking, ladders and conduits that carry and protect cables along a building route.
- Combined Services Drawing — a single sheet overlaying electrical, mechanical and plumbing routes to expose conflicts before installation.
- Riser Diagram — a vertical schematic showing how services pass between floors through shafts.
- Attribute Block — a reusable symbol carrying data fields, such as rating or circuit number, that can be extracted into schedules.

CAD for Electrical and MEP Drawings Day by Day

Day 1: Services Drawing Context and Standards

- Building Services Drawing Types — Matching Sheets to Design Stage
- Electrical and Mechanical Symbol Conventions — Reading Drawings Without Ambiguity
- Architectural Background Preparation — Setting Grids, Levels and References
- Layer Naming by Service — Separating Power, Lighting, Air and Water
- Template and Title Block Set-Up — Starting Every Services Sheet Consistently

Day 2: Electrical Schematics and Panels

- Single-Line Diagrams — Tracing Supply From Transformer to Final Board
- Distribution Board Schematics — Showing Circuits, Protection and Phases
- Panel and Switchgear Layouts — Arranging Front Elevations for Fabrication
- Attribute Blocks for Electrical Symbols — Linking Ratings to Drawing Objects
- Cable Schedules From Drawing Data — Supporting Procurement and Testing

Day 3: Lighting, Power and Containment Plans

- Lighting Layouts and Switching — Locating Luminaires Against Ceiling Grids
- Small Power and Data Outlet Plans — Serving Workstations and Equipment
- Cable Tray, Trunking and Conduit Routes — Reserving Space in Voids
- Riser and Shaft Diagrams — Connecting Floors Without Crossing Services
- Fire Alarm and Emergency Lighting Layouts — Showing Life Safety Systems Clearly

Day 4: HVAC and Pipework Layouts

- Duct Layouts With Sizes and Levels — Fitting Air Routes in Ceilings
- Chilled Water and Heating Pipework — Showing Flow, Valves and Gradients
- Plumbing and Drainage Plans — Coordinating Falls With Structure
- Plant Room Arrangements — Allowing Access for Maintenance
- Combined Services Overlays — Exposing Clashes Before Installation

Day 5: Practising the Coordinated Services Package

- Services Template for a Live Floor — Applying Layers, Symbols and Title Blocks
- Electrical Sheet Set — Applying Schematics, Panels and Lighting Layouts
- Mechanical Sheet Set — Applying Duct and Pipework Methods to the Floor
- Clash Resolution Round — Applying Combined Overlays to Agree Routes
- Coordinated Building Services Drawing Package — Completing the Issue Set

Applying CAD for Electrical and MEP Drawings After the Course

- Publish a shared symbol library and layer standard for power, lighting, HVAC and plumbing sheets, then test it on the next issued floor
- Run a combined services overlay on a current ceiling zone, listing clashes and agreeing route priorities with the electrical and mechanical leads

CAD for Electrical and MEP Drawings Questions FAQ

What is CAD for Electrical and MEP Drawings and why does it matter now?

CAD for Electrical and MEP Drawings is producing power, lighting, HVAC and plumbing drawings to shared conventions on computer. It matters now because denser buildings leave little space for services, so drawing errors become costly clashes on site.

Which roles gain most from CAD for Electrical and MEP Drawings training?

Electrical and mechanical drafters, services engineers, site technicians and maintenance planners gain most. They produce, check or update the drawings that installers and operators rely on in offices, hospitals and industrial plants.

How does CAD for Electrical and MEP Drawings differ from a BIM coordination course?

It concentrates on producing clear 2D services drawings and schedules rather than federated models. This course builds the schematics, layouts and overlays that most services teams still issue.

What do you bring back from CAD for Electrical and MEP Drawings?

You bring back a coordinated drawing package for one floor: single-line diagram, panel schedule, lighting and power layouts, duct and pipework plans and a combined overlay.

CAD for Electrical and MEP Drawings: The Way Forward

The coordinated building services drawing package first informs how ceiling and riser space is shared between electrical and mechanical routes. Drafters use it as a starting template, and services engineers use it to check issued sheets. After its first use, revisit the symbol library and layer names against installer feedback.