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# AutoCAD Electrical Training - Intermediate

[View Course Details](#)

## COURSE DATES AND TIMES

### AutoCAD Electrical Training Course Overview

The AutoCAD Electrical training course focuses on schematic creation, block organization, project coordination, template development, annotation standards, parametric constraints, and external reference management. The goal is to help participants produce consistent, accurate, and professionally structured drawing sets.

This course also introduces core electrical control design workflows, including wiring logic, wire numbering, component tagging, and cross-reference management. Participants learn how AutoCAD Electrical automation tools maintain logical relationships between schematics, components, and project documentation.

### Layout Fundamentals, Footprint Editing

The course further covers panel layout fundamentals, footprint editing, and project report generation, including bills of materials and component reports. Where applicable, learners are introduced to PLC and terminal module concepts to support control system documentation and panel coordination.

Participants work through structured project modules that reflect real drafting scenarios, including schematic layouts, mechanical views, block development, and multi-drawing project coordination using AutoCAD Electrical productivity tools.

The course emphasizes practical control of drawing standards, reusable content, annotation systems, and project organization to improve drafting efficiency and documentation quality.

This course is ideal for users who want to increase drafting speed, improve drawing accuracy, and standardize their AutoCAD Electrical workflows for professional design

environments.

## **Learning Outcomes**

Upon completion of this 12-hour live online AutoCAD Electrical training course, participants will be able to create, modify, organize, and manage electrical design documentation using AutoCAD Electrical software with confidence and consistency.

Students will understand how to:

- Produce professional schematic diagrams and panel layouts
- Apply automation tools to improve drafting efficiency
- Maintain drawing consistency across multi-drawing projects
- Implement standardized project and annotation practices
- Prepare drawings for engineering review and construction use
- Understand how to apply wire numbering and manage wiring logic in schematic projects
- Use component tagging and cross-reference tools to maintain project consistency
- Create and manage panel layouts and device footprints
- Generate project reports and bills of materials for documentation and review
- Recognize PLC and terminal module workflows used in electrical control projects

These skills prepare participants for advanced AutoCAD Electrical applications and professional electrical drafting environments.

## **AutoCAD Electrical Skills Developed in This Course**

- Work effectively with the AutoCAD Electrical interface, workspace settings, and drawing visibility tools

- Apply accurate positioning using coordinate entry, tracking, construction lines, and reference points
- Complete project-based schematic, mechanical, and block development exercises
- Use parametric drawing tools, including geometric and dimensional constraints
- Create, edit, organize, and maintain reusable blocks and tool palette content
- Develop templates with standardized layers, layouts, and unit settings
- Create and manage annotation styles for text, dimensions, and multileaders
- Use external references correctly and manage XREF-related data
- Produce organized drawing packages including title blocks, single-line schematics, and P&ID-style layouts

The AutoCAD Electrical Training course can be taken individually or as part of a complete learning path, which includes:

- [AutoCAD Electrical Mastery Bundle](#)
- [AutoCAD Electrical Tutorial](#)
- [AutoCAD Electrical Toolset](#)

### **WHO SHOULD ATTEND**

- Electrical Engineers and Designers
- Control System Designers and Panel Builders
- Drafters and CAD Technicians
- Instrumentation and Automation Technologists

- Project Managers and Estimators
- Engineering Consultants and Design Coordinators
- Contractors and Service Professionals
- Foremen and Supervisors
- Industrial, Commercial, and Institutional Maintenance Personnel

### STUDENTS RECEIVE

- AutoCAD Electrical Training Certificate of Course Completion
- 1.2 Continuing Education Unit (CEU) Credits (12 Professional Development Hours)
- A **FREE** Electricity Today T&D Magazine Subscription (Value \$25)
- **\$100** Coupon Toward Any Future Electricity Forum Event (Restrictions Apply)
- Course Materials In PDF Format

### COURSE OUTLINE

## **AutoCAD Electrical Training Intermediate Course Outline**

### **Working Effectively with AutoCAD Electrical**

- Creating and customizing workspaces
- Keyboard efficiency and command workflows
- Object creation, selection, and visibility controls
- Working across multiple drawings
- Copying and pasting between drawings
- Grip editing techniques
- Advanced layer tools

## **Accurate Positioning Techniques**

- Coordinate entry methods
- Object tracking and point location
- Construction lines
- Reference point placement

## **Project Productivity Tools**

- Schematic project – purifier unit
- Mechanical project – dual view layout
- Mechanical project – block development

## **Wiring Logic and Wire Numbering**

- Wire insertion methods
- Wire numbering rules and updates
- Maintaining wiring logic across projects

## **Parametric Drawing**

- Constraint fundamentals
- Geometric constraints
- Dimensional constraints

## **Working with Blocks**

- Creating and editing blocks
- Cleaning unused elements
- Tool palette integration
- Modifying block properties

## **Component Tagging and Cross-Reference Management**

- Tag assignment and editing
- Cross-reference behavior and validation
- Managing component relationships

## **Project Applications – Blocks and Components**

- Mechanical project – control panel
- Power project – schematic with devices
- Civil project – utility layout

### **Panel Layouts and Footprint Editing**

- Panel layout concepts
- Footprint insertion and modification
- Device placement coordination

### **Creating Templates**

- Purpose and benefits of templates
- Unit display control
- Layer standards
- Layout standards
- Template storage

### **Annotation Standards**

- Text styles
- Dimension styles
- Multileader styles

### **Project Setup Utilities**

- Mechanical and schematic project setup
- Dimension style application

### **Reports and Bill of Materials Generation**

- Project reports
- Component and wiring reports
- Exporting BOM data

### **External References**

- Attaching external references
- Modifying XREF files
- Managing XREF information

### **PLC and Terminal Modules (Introduction)**

- PLC I/O module concepts
- Terminal strip representation
- Project integration basics

### **Final Project Applications**

- D-size title block creation
- Power project – single-line schematic
- P&ID project – oil lubrication system

## **COURSE SCHEDULE**

### **Both days:**

Start: 10 a.m. Eastern Time

Finish: 4:30 p.m. Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company's location.

[Request Quote](#)