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Autocad Electrical Tutorial - Beginner

[View Course Details](#)

COURSE DATES AND TIMES

Tutorial Overview

Learners gain a working foundation in schematic wiring, ladder insertion, wire numbering, report and bill-of-materials generation, and project symbol management. The goal is not only to teach software tools, but to show how those tools support professional electrical documentation.

What This AutoCAD Electrical Tutorial Teaches in Practice

This AutoCAD Electrical Tutorial goes beyond basic drafting commands to teach the core electrical design workflows that professionals use when creating and documenting schematics.

Students learn how to perform the following AutoCAD Electrical-specific tasks:

- Insert ladders and wires using schematic tools such as the Insert Ladder command.
- Apply point-to-point wiring and wire numbers for clear schematic cross-referencing.
- Generate electrical reports and bills of materials from schematic data.
- Organize drawings and components using the Project Manager.
- Manage symbol libraries for consistent schematic documentation.
- Trace circuits using signal arrows and source-to-destination paths.

These workflows reflect how AutoCAD Electrical is used in real electrical design environments and form the core instructional focus of this tutorial.

Rather than teaching commands in isolation, the tutorial shows how those commands support complete electrical schematic creation, documentation, and project organization.

Tutorial Learning Structure

The tutorial begins with drafting fundamentals and immediately connects those skills to electrical design workflows.

Students learn how to navigate the interface, configure drafting settings, and use essential drawing and editing tools. Those tools are then applied to electrical-specific tasks, such as placing components, wiring, organizing projects, and preparing documentation.

By the end of the tutorial, learners understand not only how to draw objects, but also how those objects function together as part of a complete electrical schematic system.

Integrated Learning Outcomes

Learning Outcomes

After completing this AutoCAD Electrical Tutorial, participants will be able to:

- Create schematic wiring diagrams using standard electrical symbols and ladder structures.
- Insert ladders and place wires using AutoCAD Electrical schematic tools.
- Apply automatic and manual wire numbering with point-to-point identifiers.
- Generate wire lists, component reports, and bills of materials from schematic data.
- Organize drawings and references using the AutoCAD Electrical Project Manager.
- Manage symbol libraries for consistent schematic documentation.
- Trace circuits using source and destination signal paths.
- Prepare electrical schematics for printing and PDF distribution.

These outcomes reflect practical electrical drafting workflows rather than general CAD familiarity.

Tutorial Structure and Learning Format

This AutoCAD Electrical Tutorial is organized as a step-by-step workflow guide supported by task-focused headings, visual references, and structured learning sections.

Each workflow includes clear steps and expected outcomes so learners can follow schematic wiring, ladder insertion, wire numbering, report generation, and project management processes in a logical sequence.

Visual examples such as screenshots or diagrams are used throughout the tutorial to support actions like ladder insertion, wire numbering, BOM generation, and Project Manager workflows.

The tutorial structure is designed to reflect how users search for AutoCAD Electrical help, including topics such as:

- How to insert ladders in AutoCAD Electrical
- AutoCAD Electrical wire numbering
- AutoCAD Electrical wire list and BOM generation
- AutoCAD Electrical Project Manager workflows
- Source and destination tracing

This format allows the tutorial to function as both a learning resource and a structured instructional reference.

Relationship to Advanced Training

This AutoCAD Electrical Tutorial is the first level in a three-course learning path. It prepares students for:

[AutoCAD Electrical Intermediate Schematic Workflows](#)

[AutoCAD Electrical Reporting and BOM Workflows](#)

[AutoCAD Electrical Mastery Bundle](#)

The tutorial ensures students have the drafting, organizational, and documentation skills required to succeed in advanced electrical CAD instruction.

WHO SHOULD ATTEND

This Tutorial is designed for:

- Beginners with no prior AutoCAD experience.
- Electricians and technicians transitioning into electrical CAD work.
- Students entering electrical drafting or design programs.
- Professionals who need a structured introduction to AutoCAD Electrical workflows.

The course assumes no drafting background and builds skills progressively.

STUDENTS RECEIVE

- AutoCAD Electrical Tutorial Training Certificate

- .6 Continuing Education Unit (CEU) Credits (6 Professional Development Hours)
- 100-Page Digital Handbook - Value \$20 (details below)
- A FREE Electricity Today T&D Magazine Subscription (Value \$25)
- \$50 Coupon toward any future Electricity Forum event (restrictions apply)
- Course Presentations in PDF Format

COURSE OUTLINE

Step-by-Step AutoCAD Electrical Tutorial Outline

This Tutorial is organized around real electrical drafting workflows, supported by the drafting and documentation skills required to execute them correctly.

Tutorial Workflow Modules

Schematic Wiring Workflow

- Create schematic wiring diagrams using electrical symbols.
- Place components from the content library.
- Draw and connect wires between devices.
- Organize circuits using ladder structures.

How to Insert Ladders in AutoCAD Electrical

- Insert ladder templates or custom ladder grids.
- Align rungs and rails using snap and grid controls.
- Place wires between ladder points for logical circuit flow.

Wire Numbering and Point-to-Point Wiring

- Apply automatic and manual wire numbering.
- Adjust numbering standards and sequences.
- Assign point-to-point identifiers.
- Verify continuity with cross-reference tools.

AutoCAD Electrical Wire List and BOM Generation How-To

- Create wire lists and component reports.
- Generate bills of materials for procurement.
- Export reports to spreadsheet and PDF formats.
- Customize report content and layout.

AutoCAD Project Manager Tutorial

- Organize drawings using the Project Manager.
- Work with standard and custom symbol libraries.
- Update symbol definitions and references.
- Maintain consistent documentation across drawings.

Source/Destination Tracing in AutoCAD Electrical

Signal arrows and tracing tools are used to follow circuit paths across drawings and verify electrical continuity.

Supporting Drafting and Documentation Skills

These workflow modules are supported by the following instructional areas:

- Interface navigation, workspace customization, and file organization.
- Drafting precision using units, snaps, grids, and coordinate systems.
- Electrical drawing and editing commands.
- Layer management for schematic organization.
- Advanced editing of schematic geometry.
- Block creation and symbol usage.
- Viewport and layout control.
- Electrical annotations, notes, and tables.
- Dimensioning for electrical documentation.
- Printing and plotting to PDF.

Each instructional area directly supports the electrical workflows taught in the tutorial.

Tutorial Schedule

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](#)