

## Autodesk AutoCAD Electrical Training Course

### Course Overview

#### Course Length: 16 Hours

- 16 hours (8 x 2-hrs) of instructor-led training delivered across multiple sessions
- Remote training delivered over MS Teams
- Sessions are recorded and download links are provided for future reference
- Suitable for 1–3 participants
- Scheduling can commence within 7 days of order confirmation
- Flexible session planning to suit project deadlines and team availability
- Private course content tailored to your AutoCAD Electrical workflows and project requirements
- Includes a Certificate of Completion

This Autodesk AutoCAD Electrical Training Course provides a practical, structured introduction to electrical design workflows for drafting, controls, and documentation teams. Over 16 hours, participants will learn how to create and manage projects, develop schematic drawings, place and edit components, work with wires, ladders, circuits, terminals, PLC modules, and panel layouts, and generate accurate project documentation and reports. The course is designed for beginner to intermediate users who want to build confidence using AutoCAD Electrical to produce consistent, efficient, and standards-based electrical drawings.

### Topics Covered

- Understanding the AutoCAD Electrical interface, project structure, and electrical drafting workflow
- Creating and managing project files, drawings, and templates
- Building schematic drawings with ladders, wires, components, and circuits
- Editing and updating components, wire numbering, and project-wide changes
- Developing panel layouts, terminal strips, and PLC drawings
- Creating symbols, managing databases, and working with title blocks
- Generating reports, auditing drawings, and exporting project information

### Prerequisites

No prior Autodesk ReCap experience is required. A basic understanding of construction, surveying, scan data, or BIM workflows, along with general computer skills, will help participants get the most from the course.

### Training Guide Contents

#### Chapter 1: Introduction to AutoCAD Electrical

- 1.1 What is AutoCAD Electrical?
- 1.2 Drawing Files
- 1.3 Electrical Components and Wires
- 1.4 Design Methodologies

## **Chapter 2: Project Files**

- 2.1 Project Manager Interface
- 2.2 Accessing Project Files
- 2.3 Opening a Drawing
- 2.4 Creating a Drawing
- 2.5 Add a Drawing to a Project File
- 2.6 Managing Drawings in Projects
- 2.7 Project Manager Drawing List

## **Chapter 3: Schematics I – Single Wires/Components**

- 3.1 Referencing
- 3.2 Ladders
- 3.3 Insert Wires
- 3.4 Edit Wires
- 3.5 Add Rungs
- 3.6 Wire Setup
- 3.7 Wire Numbers
- 3.8 Source and Destination Signal Arrows
- 3.9 Insert Component
- 3.10 Parent/Child Components

## **Chapter 4: Schematics II - Multiwire and Circuits**

- 4.1 Dashed Link Lines
- 4.2 3-Phase Ladders
- 4.3 Multiple Wire Bus
- 4.4 3-Phase Components
- 4.5 3-Phase Wire Numbering
- 4.6 Cable Markers
- 4.7 Fan In/Out
- 4.8 Insert Saved Circuits
- 4.9 Save Circuits to Icon Menu
- 4.10 WBlock Circuits
- 4.11 Copy Circuit
- 4.12 Move Circuit
- 4.13 Circuit Clipboard
- 4.14 Circuit Builder

## **Chapter 5: Editing Commands**

- 5.1 Edit Component
- 5.2 Updating Drawings
- 5.3 Scoot
- 5.4 Move Component
- 5.5 Copy Component
- 5.6 Align

- 5.7 Delete Component
- 5.8 Surfer Command
- 5.9 Copy Catalog Assignment
- 5.10 Copy Installation/Location Code Values
- 5.11 Attribute Editing Commands

## **Chapter 6: Panel Drawings**

- 6.1 Insert Footprint (Icon Menu)
- 6.2 Insert Footprint (Schematic List)
- 6.3 Insert Component (Panel List)
- 6.4 Edit Footprint
- 6.5 Assign Item Numbers
- 6.6 Add Balloons

## **Chapter 7: Terminals**

- 7.1 Insert Terminal Symbols
- 7.2 Multiple Level Terminals
- 7.3 Multiple Insert Component Command
- 7.4 Insert Jumpers
- 7.5 Terminal Strip Editor
- 7.6 DIN Rail Command

## **Chapter 8: PLC Symbols**

- 8.1 Insert PLC (Parametric)
- 8.2 Insert PLC (Full Units)
- 8.3 Insert Individual PLC I/O Points
- 8.4 PLC Based Tagging
- 8.5 Spreadsheet to PLC I/O Utility

## **Chapter 9: Point-to-Point Wiring Drawings**

- 9.1 Insert Connectors
- 9.2 Edit Connectors
- 9.3 Insert Splices
- 9.4 Insert Multiple Wires
- 9.5 Bend Wires

## **Chapter 10: Symbol Creation**

- 10.1 Schematic Symbols
- 10.2 Naming Convention
- 10.3 Icon Menu Wizard
- 10.4 AutoCAD Electrical Databases
- 10.5 Project Database
- 10.6 Catalog Database
- 10.7 Footprint Lookup Database
- 10.8 PLC Database

## **Chapter 11: Titleblocks**

- 11.1 Update Titleblocks
- 11.2 Titleblock Setup

## **Chapter 12: Reporting Tools**

- 12.1 Create Reports
- 12.2 Configure Report Templates
- 12.3 Running Automatic Reports
- 12.4 Electrical Audit

## **Chapter 13: Settings and Templates**

- 13.1 Project Properties
- 13.2 Drawing Properties
- 13.3 Panel Drawing Configuration
- 13.4 Template Files
- 13.5 Sharing Symbol Libraries and Databases

## **Chapter 14: Drawing Update Tools**

- 14.1 Project-Wide Update/Retag
- 14.2 Project-Wide Utilities
- 14.3 Plot Project
- 14.4 Export to Spreadsheet
- 14.5 Update from Spreadsheet
- 14.6 Copy Project
- 14.7 Swap/Update Block
- 14.8 Mark/Verify Drawings

## **Appendix A: Skills Assessment**