AutoCAD Electrical Fundamentals (IGTAE)

Course Length:	24 Hours

The primary objective of this course is for students to learn the basic commands necessary for creating professional electrical-controls drawings with AutoCAD Electrical software. After completing this course, students will be able to:

- Navigate the AutoCAD Electrical user interface.
- Use the fundamental features of AutoCAD Electrical.
- Build intelligent ladder diagrams and panel layouts.
- Create, view, and edit the project settings and properties.
- Extract data from drawings into reports formatted to match users' standards.
- Insert and edit parametric PLC modules, nonparametric PLC modules, and Stand-alone PLC I/O points

Prerequisites:

- Background in electrical design
- Working knowledge of AutoCAD
- It is also recommended that you have a working knowledge of Microsoft® Windows® XP, Microsoft® Windows® 2000, or Windows NT® 4.0.

Day 1
Module 1: Basic Workflow
· Design Environment & Basic Workflow
Module 2: Project Basics
· Project Manager
· The Project Drawing List
· Moving Through Projects
· Activating and Copying Projects
Module 3: Schematic Wiring
· Wires and Ladders
· Wire Numbers
· Source and Destination Signal Arrows
· Circuits
· Multiple Phase Circuits
· Connectors and Point-to-Point Wiring
Module 4: Schematic Editing
· Basic Utilities
· Miscellaneous Tools
· Resequence and Retag Drawings
· Using the Auditing Tools
Module 5: Schematic Components
· Inserting Schematic Symbols
· Swapping and Updating Blocks
· Inserting Schematic Components from Lists
Module 6: Schematic Reports
· Schematic Reports
Day 2
Module 7: Panel Layouts
· Creating Panel Layouts from Schematic Lists
· Using the DIN Rail Utility
· Using the Terminal Strip Editor
· Panel Layout Annotation and Reports

Module 8: Settings and Configurations
· AutoCAD Electrical Environment
· Project Properties
· Drawing Properties
Module 9: Custom Components
· Schematic Symbols
· Icon Menu System
Module 10: Custom Data
· Managing Part Catalog Databases
· Editing the Pin List Database
· Title Block Updates
· Reference Files
Module 11: Auditing Tools
· Auditing Tools
· Trouble Shooting Tools
Module 12 Automation Tools
· Update Schematics from Spreadsheets
· Automatic Report Generation
Day 3
Module 13 Autodesk Vault Integration
· Working with Autodesk Vault
Module 14 PLC Modules
· Using PLC I/O Modules
· Using the PLC Database File Editor
· PLC I/O Address-Based Tagging
· Using the Spreadsheet to PLC I/O Utility
Module 15 Advanced Tools
· Din Rail Editor
· Footprint with wire annotation
· Conduit Tools
· Cables