



July 21-23, 2026

Siemens S7-1500 Programming with the TIA Portal

This fast paced three day course assumes the student has a basic knowledge of programming PLCs and focuses on how to use TIA Portal Step 7 Professional software to create a complete PLC system. The focus includes configuration of the Siemens S7-1500 PLC hardware, PROFINET configuration, programming using ladder logic and basic diagnostic functions

Topics:

- S7 Family Hardware Overview
- TIA Portal Project and Portal Views
- Configuring the S7-1500 PLC Hardware
- Configuring a PROFINET Network
- S7-1500 Addressing & Memory
- Using Various Programming Methods (Linear, Partitioned, Structured)
- Using Basic Instruction Set (Contacts, Coils, Timers, Counters)
- How To Use Function (FC) & Function Block (FB)
- Using IEC Functions & Function Blocks
- Using Libraries
- Using Simatic Automation Tool
- Data Block Usage & Data Types
- Understanding the Most Used Organization Blocks
- Analog Value Processing
- Monitoring Logic & Using Watch Tables
- Use of Trace
- Online Diagnostics & Troubleshooting
- Use of PLCSIM Simulation Tool
- Using the Integrated Web Server on the PLC
- Using a Multi-Instance Function Block (Time Permitting)

Prerequisite:

Basic Understanding of PLCs

Date: July 21-23, 2026

Location: **Milwaukee, WI**
N114W18770 Clinton Dr
Germantown, WI 53022

Time: 8:30 a.m. to 4:30 p.m.

Cost: \$2,400.00

Registration: [CLICK HERE](#) or Scan QR Code

**Class size must reach 4 participants
or it may be subject to cancellation.*

