



March 30- April 3, 2026

SIEMENS

TIA Portal Programming 2

3.0 CEUs (Continuing Education Credits)

This course is the second in a three-part series which increases skills with Siemens SIMATIC TIA Portal. Students will learn to leverage the power of TIA Portal software with advanced structured programming techniques.

A systems approach to efficiently programming the S7-1500, S7-1200, S7-300, and S7-400 PLC is covered. Integration and connectivity of PROFINET IO, HMI, and G120 Drive are the central focus of this course. Programming emphasis centers on Ladder (LAD), and Statement List (STL) logic with an introduction to Structured Control Language (SCL), and S7-GRAPH. Both direct and indirect addressing are an integral part of the course.

Objectives:

Upon Completion of this course, the student shall be able to:

- Leverage the power of Block and Function libraries.
- Use LAD and STL for Programming required functions
- Employ direct and indirect addressing in a program.
- Incorporate System Functions (SFC) in a program.
- Integrate an HMI and Drive system with the PLC on a PROFINET network.
- Program Instance and Multi-Instance Block calls.
- Use interrupt-driven and error processing program execution blocks
- Leverage STEP7 advanced diagnostics

Topics:

1. Training Devices and Addressing
2. Hardware Commissioning
3. Program Design Methods
4. Jump and Accumulator Functions
5. Analog Value Processing and Arithmetic
6. FCs, FBs, and Multiple Instances
7. Complex Data and Addressing
8. Optimized Block Accesses
9. HMI Alarm Messages
10. System Diagnostics and Error Handling
11. Introduction to SCL
12. Introduction to S7-GRAPH
13. Integration and Commissioning a Drive with Startdrive

Date: March 30- April 3, 2026

Location: Nashville, TN

1854 Air Lane Dr., Suite 20
Nashville, TN 37210

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

Cost: \$3,700.00

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

**Class size must reach 6 participants or it may be subject to cancellation.*

**Class size must reach 6 participants or it may be subject to cancellation.*

