GCG | AUTOMATION & FACTORY SOLUTIONS

SIMATIC Programming 1 in the TIA Portal
Dayton, OH

February 16-19, 2026

SIEMENS

SIMATIC Programming 1 in the TIA Portal

2.6 CEUs (Continuing Education Credits)

This course is the first in a three-part series which builds basic programming skills with Siemens TIA Portal software. Students will learn TIA Portal project management, program design, and application development.

This is an aggressively paced curriculum covering the S7 programming editor with Ladder, Function Block Diagram, and Statement List programming languages, as well as key TIA Portal software tools. Throughout the course, students will build a TIA Portal project from the beginning, learning proper program structure and documenting. Software diagnostic tools will be used for debugging both hardware and code. Various instruction sets, memory areas, program blocks, and libraries will be introduced to provide the student with solid concepts of structured programming. The course format consists of instruction and hands-on exercises.

Objectives:

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

- Complete a system hardware configuration.
- Build, document, test, and troubleshoot a structured TIA Portal program.
- Program using the multiple address and coding types.
- Use symbolic addressing.
- Use core application instructions, functions, and blocks.
- Program using the processed analog values.
- Generate data blocks.
- Install PROFIBUS DP connectors on to PROFIBUS cables and test the cables for correct installation.
- Establish communication to an HMI.

Topics:

1. System Overview
2. Engineering Software “TIA Portal”
3. Training Devices and Addressing
4. Devices and Network
5. PLC Tags
6. Program Blocks
7. Binary Operations
8. Digital Operations
9. Data Blocks
10. Distributed I/O
11. Human Machine Interface (HMI)
12. Functions (FCs) and Function Blocks (FBs)
13. Organization Blocks (OBs)
14. Troubleshooting

Date: February 16-19, 2026

Location: **Dayton, OH**
2400 Technical Dr.,
Miamisburg, OH 45342

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.*