GCG | AUTOMATION & FACTORY SOLUTIONS

PCS 7 System Engineering
St. Louis, MO

May 4-7, 2026

PCS 7 System Engineering

2.6 CEUs (Continuing Education Credits)

This course is designed for controls engineers who are responsible for project design, development, and commissioning a PCS 7 system.

The goals of this course are to aggressively help the student learn a basic system configuration and project design using standard system tools and libraries. This course begins with the definition of a typical project and planning the system architecture. The students will then actively build, test, and debug a simple PCS 7 process system, exploring the Automation Station, Engineering Station, and Operator Station engineering environments. Hands-on lab exercises are used to build experience with system engineering, process optimization, and common troubleshooting.

Objectives:

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

- Use Siemens PG or laptop to communicate with an S7 PLC system.
- Commission a PLC system
- Examine and complete wiring diagrams for S7300 I/O modules.
- Replace S7 hardware modules, update the hardware configuration download changes to the PLC.
- Diagnose and troubleshoot instructor-set mystery faults and without Organization Blocks loaded.
- Monitor the control logic for a PLC conveyor system making light modifications and simple code debugging.
- Monitor, modify, and Force I/O.
- Backup and restore an S7 project.

Topics:

1. Installing and writing Step 7 module on the main rack
2. Wire checking Step 7 modules with a meter
3. Installing and wiring ET200s PROFIBUS remote station I/O modules
4. Wire checking ET200s modules with a meter
5. Installing PROFIBUS DP connectors and cables
6. Installing PROFINET connectors and cables
7. Setting PG/PC communications to an S7 PLC system using MPR, PROFIBUS, PROFINET
8. Backing up (archiving) and restoring (retrieving) an S7 project
9. Downloading HMI Project
10. Normally open and normally closed field devices vs Normally open and Normally closed code contacts

Date: May 4-7, 2026

Location: **St. Louis, MO**
675 Spirit Valley Central Dr
Chesterfield, MO 63005

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

Cost: $4,050.00

Registration: CLICK HERE or Scan QR Code

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