Course Overview

Course number: TPS-4750
Course length: 8 days

This course provides students with a full understanding of both the hardware and software facets of the Process Manager (PM)/Advanced Process Manager (APM)/High Performance Process Manager (HPM) control node. Hands-on lab exercises, utilizing a full-functioning process simulator, comprise 80% of the course. Students will be required to install, configure and commission I/O, and configure high-level including Regulatory Control, Digital Composite and Logic points. They will develop safer and more effective troubleshooting procedures that not only consider the node hardware (cards, cables, power supplies, etc.), but also the impact of the loop parameter settings, automatic controls, permissives, interlocks and startup/shutdown sequences.

Course Benefits

Builds confidence in supporting your TPS system

- A full-functioning process simulator provides a unique, job-relevant, hands-on learning platform that allows you to learn by doing
- You will work with a broad range of PM family I/O boards which include: HLAI, LLAI, LLMUX, PI, STIM, AO, DI, DO
- You will work with a broad range of xPMM point types including Regulatory, Digital Composite, Device Control and Logic
- You will work in a lab-based team environment 80 percent of the time

Prerequisite/Skill Requirements

Prerequisite Course (s)
- None

Required Skills and/or Experience
- Understanding of the Process Control Plant
- A block level understanding of TPS Networks and node types
- A cursory understanding of standard system displays and keyboard use
- An understanding of basic electrical concepts, test equipment and drawing symbols
- An understanding of sensor/transducer basic operation and wiring requirements
- An understanding of single/cascade PID automatic control operation, modes and tuning settings
- A working understanding of logical gates (and, or, flip-flop, etc.) and the use of logic schemes

Desirable Skills and/or Experience
- Working knowledge of your process

Course Topics

You will learn how to...

- Read and interpret electrical/mechanical drawings
- Build digital and analog points
- Build Regulatory Control, Digital Composite, Device Control, Logic, Array, Numeric and Flag points
- Read and interpret interlock drawings
- Use status displays from a Universal Station (US) or Global User Station (GUS)
- Interpret error codes and status indicators
- Troubleshoot the PM/APM/HPM using the lab simulator

Course Delivery Options (pick any that apply)

- In-Center Instructor-Led Training

Who Should Take This Course?

TotalPlant Solution System (TPS) customers

- Who have total responsibility for one or more of the PM family controllers, from control card point implementation to the field wiring
- This course is well-suited for the technician, engineer or the senior control-room operator

Additional Training

To increase your knowledge and skills, there are additional courses available from Automation College.

For more information and registration, visit https://www.honeywellprocess.com/