

E&I Fundamentals Hands-on Technician Training

The Experitec PERFORMANCE LEARNING PLATFORM (PLP)TM

Not all training is created equal. That's why Experitec invented the **Performance Learning Platform (PLP)TM** as a mobile "plant on wheels" designed to close the gap between performance, safety, and reliability. Instructor-led, hands-on classes deliver an immersive and realistic training environment emulating a live process - **with live equipment, live failures, live troubleshooting, and real-world scenarios**. Practical exercises teach Engineers, Operators, and Technicians the way that they learn best - by examining complete systems, applying skill sets, building repetition, and observing mistakes. Traditional classroom training with manuals and PowerPoint can only take you so far. The PLP's holistic approach ensures maximum knowledge retention, creates a solid foundation for future talent development, and builds competencies and confidence that translate directly to your operations!



What You'll Experience

- ✧ Instructor-led learning for Technicians, Engineers, Maintenance & Reliability Professionals, & Operators
- ✧ Real production equipment with valves, instruments, control systems, HMIs, pumps, motors, & more
- ✧ Hands-on labs, workshops, & guided exercises
- ✧ Self-paced & group activities
- ✧ Scripted troubleshooting scenarios simulating real plant events and abnormal situation handling
- ✧ How to use calibration, diagnostic, and configuration tools
- ✧ Root-cause identification techniques

Key Benefits from PLPTM Training

- Gain immediate ROI from training
- Prepare for shutdowns, turnarounds, and outages
- Reinforce critical thinking & troubleshooting skills
- Train on the entire control loop - cabinet to field
- Compress learning curves for new-hires
- Upskill & retain existing employees
- Reduce operational & safety risks



Experience the Experitec Difference

Scan or click the QR code to reserve your spot today, or you can also send a registration request directly to CustomerTraining@Experitec.com.



3-DAY TECHNICIAN TRAINING AGENDA



DAY 1 CONTROL LOOP FOUNDATIONS & TEMPERATURE

COURSE TOPICS

- Understanding P&IDs, PFDs, loop drawings, electrical documentation, instrument tagging
- Instrument loop fundamentals: 4-20mA signals, loop power, HART communications, basic field wiring practices
- Instrument fundamentals: sensor vs. transmitter; configuration vs. calibration; range, span, trim, device diagnostics
- Hands-on technician tools: field communicators & documenting calibrators
- Temperature measurement fundamentals: RTDs, thermocouples, thermowells, sensor wiring
- Temperature transmitter configuration, simulation, calibration checks, basic troubleshooting



DAY 2 PRESSURE, CALIBRATION, & DP APPLICATIONS

COURSE TOPICS

- Pressure measurement fundamentals: gauge, absolute, differential, static
- Pressure transmitter operation, configuration, range setup, units, damping, diagnostics
- Manifolds, isolation valves, venting, equalization, impulse lines, safe return-to-service practices
- Hands-on pressure calibration: pumps, references, fittings, documenting calibrators
- As-found/as-left test, tolerance evaluation, sensor trim, output trim, calibration documentation
- Applying pressure fundamentals to DP level, DP flow, scaled variables, pressure switches, common faults



DAY 3 INTEGRATED TROUBLESHOOTING: FLOW, LEVEL, & VALVES

COURSE TOPICS

- Non-contact radar, guided wave radar, DP level, point level, common level troubleshooting scenarios / considerations
- Vortex, mass flow (coriolis), magnetic, DP, multivariable flow measurements
- Control valve fundamentals: actuator, positioner, solenoid, smart valve controllers, basic troubleshooting, installation
- Control system basics: controllers, human machine interface (HMI), I/O cards, cabinet components, power supplies, enclosures
- Modern HMIs: process variables, setpoints, alarms, alerts, device status, faceplates
- Analyzing trends, software diagnostics, fault isolation
- Troubleshooting across the entire loop: field device, wiring, power, I/O, configuration, process connection, control system
- End-to-end capstone: troubleshooting exercises in real-world plant scenarios

What's included

- All training materials / manuals
- Two instructors
- Only eight students per class
- Breakfast, lunch, & snacks
- Students may bring their own equipment, if desired

Training Centers Near You!

- ❖ **Chesterfield, MO**
- ❖ **Lenexa, KS**
- ❖ **Memphis, TN**
- ❖ **Little Rock, AR**
- ❖ **Decatur, IL**
- ❖ **Calvert City, KY**
- ❖ ...or contact us for a custom class hosted directly at your plant location with our PLP!

Students are eligible to receive 24 professional training hours (CEUs)

CERTIFICATE OF ATTENDANCE

**E&I Fundamentals
Technician Training**

