This training aims to empower instrumentation and electrical technicians with the expertise required to minimize downtime, optimize plant performance, and elevate their roles as indispensable contributors to the seamless operation of a chemical facility.

Scope:
As keys contributors to the plant's operational efficiency, participants will sharpen their skills in identifying, diagnosing, and resolving instrumentation and electrical issues.
Instructor led topics include, but are not limited to:

- Control Loops
- Sensor Calibration
- PLCs
- Electrical Circuit Analysis

The course delivery will include in-class group work and hands-on lab work.

Objectives:
Upon completion of this course, attendees will be able to:

- Understand the principles of control loops and acquire the skills needed to troubleshoot and optimize their performance, ensuring precise control in critical processes.
- Learn the intricacies of sensor calibration, including methods to ensure accuracy and reliability, contributing to precise data acquisition and control system stability.
- Troubleshoot Programmable Logic Controllers (PLCs), covering issues related to programming, communication, and hardware failures to enhance the efficiency of automated processes.
- Analyze and troubleshoot electrical circuits, including identification and resolution of issues such as short circuits, open circuits, and voltage fluctuations.
- Understand and adhere to safety protocols and compliance standards specific to instrumentation and electrical systems in a chemical plant environment, prioritizing the well-being of personnel and assets.

Prerequisites:

Basic electrical and instrumentation fundamentals and understanding of process control systems.

Suggested Class Size:
Minimum 10
Maximum 18

Course Length:
16 hours (2 days)
*The training duration is initially set at 16 hours (2 days). However, customization options are available, allowing for a condensed format of 8 hours (1 day).