TPI

Courses

TPI 110 Process Control and Instrumentation 1: Pressure Control
2.5 Credits. 2 Lecture Hours. 1 Lab Hour.
A course on foundation concepts related to process controls and instrumentation. Topics include: controllers, transmitters, variable frequency drives (VFDs) and control valves, and automatic control techniques. Laboratory exercises include loop wiring, calibration, controller configuration, and troubleshooting.
Prerequisites: None

TPI 120 Process Control and Instrumentation 2: Temperature Control
2.5 Credits. 2 Lecture Hours. 1 Lab Hour.
A continuation of TPI 110. Topics include: control of temperature and pressure. Activities include laboratory exercises and computer simulations.
Prerequisites: TPI 110

TPI 130 Process Control and Instrumentation 3: Level and Flow
2.5 Credits. 2 Lecture Hours. 1 Lab Hour.
A continuation of TPI 120. Topics include: control of level and flow, installation, calibration, configuration, and troubleshooting. Activities include laboratory exercises.
Prerequisites: TPI 120

TPI 140 Process Control and Instrumentation 4: Final Control
2.5 Credits. 2 Lecture Hours. 1 Lab Hour.
A continuation of TPI 130. Topics include: industry use of final control units; and how to select, install, configure, and troubleshoot pneumatic control valves and variable frequency drives (VFDs). Activities include laboratory exercises.
Prerequisites: TPI 130

TPI 150 Process Control and Instrumentation 5: Analytical Control
2.5 Credits. 2 Lecture Hours. 1 Lab Hour.
A continuation of TPI 140. Topics include: control of analytical and measurement processes such as ORP, pH, conductivity, and chromatography. Activities include laboratory exercises.
Prerequisites: TPI 140