Polk State College, with the aid of Trinova Inc., offers the only training of this kind, at this scale, in the state of Florida. All classes are taught with a portion of hands-on-training utilizing our in-house Process Training Unit (PTU). Using our unique training format individuals can not only apply theory taught in the classroom via our PTU, but students can share experiences and problems they’ve encountered in the field with others in the industry from different plants and factories. This open discussion training format is ideal in refining employee’s technical skills.

**AM2010  Fundamentals of Instrumentation**

This course will start by providing maintenance and engineering personnel with a review of instrumentation technologies, terminology, and symbols needed to work in the field.

**Time:** 8am to 4-5pm  
**Duration:** 4 Days  
**Cost:** $1520.00  
**Location:** 310 Technology Drive  
Bartow, FL 33830

**Course Covers:**
- Systems Overview
- Basics of P& I.D.’s/ Wiring Drawings
- Temperature and Pressure Theory
- Tuning Fork Tech.
- Capacitance Tech.
- Hydrostatic Pressure/ DP
- Time of Flight Tech. (ToF)
- Radar Level Tech.
- Ultrasonic Level Tech.
- DP Flow Tech.
- Electromagnetic Flow Tech.
- Vortex Flow Tech.
- Coriolis Flow Tech.
- Ultrasonic Flow Tech.
- pH Theory, Calibration, and Maintenance
- Conductivity Theory
AM2020  Flow 1
This course will start by providing maintenance and engineering personnel with basic understanding of numerous flow technologies. The concepts taught in this class are applicable to virtually any manufacturer’s equipment.

**Time:** 8am to 4-5pm  
**Duration:** 2 Days  
**Cost:** $760.00  
**Location:** 310 Technology Drive  
Bartow, FL 33830

**Course Covers:**  
Basics of Flow Profiling  
Flow Sensor Installation  
Field Configuration & Troubleshooting  
Differential Pressure Transmitters  
Shedding Flow Meters  
Electromagnetic Flow Meters  
Coriolis Flow Meters  
Ultrasonic Flow Meters  
Thermal Dispersion Flow Meters  
Volumetric vs. Mass Flow
AM2030 Flow 2
This advanced class is designed for students who have completed the Flow 1 course. The class will start by providing a brief overview of varies flow technologies, followed by in-depth training on vortex, magnetic, ultrasonic, and coriolis flow meters.

**Time:** 8am to 4-5pm  
**Duration:** 2 Days  
**Cost:** $760.00  
**Location:** 310 Technology Drive  
Bartow, FL 33830

**Course Covers:**  
Flow Meter Technology Overview  
Flow Meter Configuration  
Output Configuration  
Advanced Electromagnetic Flow Technology  
Advanced Vortex Flow Technology  
Coriolis Flow Technology  
Entrained Air & Zero Point Adjustments  
Static & Dynamic Zero  
Density & Concentration Measurement  
Viscosity Measurement  
Ultrasonic Flow  
Field Care  
Troubleshooting
AM2040  Level 1
This course will start by providing maintenance and engineering personnel with basic understanding of numerous level technologies. The concepts taught in this class are applicable to virtually any manufacturer’s equipment.

Time: 8am to 4-5pm
Duration: 2 Days
Cost: $760.00
Location: 310 Technology Drive
Bartow, FL 33830

Course Covers:
Fundamentals of Level
Tuning Fork Technology
Capacitance Technology
Hydrostatic Technology/ DP
Basics of Time of Flight (ToF) Technology
Basic Radar Setup (No PC)
Radar Technology
Signal creation & Filters for curves
Guided Wave Radar
Ultrasonic Level
Guided Wave Radar ToF Signal Creation & Filters
FDT Software
Troubleshooting Techniques
AM2050 Level 2

This advanced level course begins with a brief overview of current level technologies. Following the refresher, the students take an in depth look at each level measuring technology, discussing implementation, configuration, calibration, and troubleshooting. Special emphasis is placed on understanding Time of Flight and envelope curves.

Time: 8am to 4-5pm
Duration: 2 Days
Cost: $760.00
Location: 310 Technology Drive
Bartow, FL 33830

Course Covers:
Level Technology Overview
Radar Level & Configuration
Hydrostatic Technology/ DP
Hydrostatic Pressure Configuration & Calibration
Hydrostatic Pressure Linearization
Capacitance Level Technology
Time of Flight (ToF) Technology
Envelope Curve Analysis & Filters
ToF Envelope Curves & Filters
ToF Manual Mapping/ Upload & Download
Guided Wave Radar Technology/ Curves & Filters
Ultrasonic Level Technology
Inventory Management/ Field Gate
Troubleshooting & Repair
AM2070  Liquid Analysis
This course will start by providing maintenance and engineering personnel with a basic understanding of numerous analytical technologies, followed by in-depth training on pH, chlorine, and conductivity monitors. The concepts taught in this class are applicable to virtually any manufacturer’s equipment.

Time: 8am to 4-5pm
Duration: 2 Days
Cost: $760.00
Location: 310 Technology Drive
           Bartow, FL  33830

Course Covers:
Analytical Procedures
Theory of pH
pH Products
pH Calibration & Maintenance
Theory of Conductivity
Conductivity Technology
Theory of Chlorine Measurement
Chlorine Calibration & Maintenance
AM2060  Pressure & Temperature Calibration
This course will start by providing maintenance and engineering personnel with basic understanding of numerous pressure and temperature technologies as well as the skills needed to setup and maintain such equipment.

Time: 8am to 4-5pm
Duration: 3 Days
Cost: $1140.00
Location: 310 Technology Drive
Bartow, FL 33830

Course Covers:
Instrumentation & Calibration Terminology
Fundamentals of Temperature
Temperature Sensors
Thermocouples & RTD’s
Temperature Transmitters
Fundamentals of Pressure
Pressure & DP Level
DP Flow
Calibration Procedures & Documentation
Temperature & Pressure Configurations
Temperature & Pressure Applications
AM2035  Application Engineering
This course is designed to assist engineers in the selection and sizing of industrial Instrumentation. This class will begin with a brief overview of industrial instrumentation and automation used in today’s process facilities, touching on basic measurements and communication. Following this introduction, we will proceed with in-depth training on area classification along with proper device selection of the basic measurement types such as flow, level, pressure and temperature. The class ends with a comprehensive study of proper sizing of measurement devices under an array of process conditions.

Time: 8am to 4-5pm
Duration: 1 Day
Cost: $380.00
Location: 310 Technology Drive
         Bartow, FL 33830

Course Covers:
Area Classification and know how to apply them
Proper Level device in typical process conditions
Properly size Flow devices under normal conditions
Properly size Pressure devices under normal conditions
Properly configure type and style for Temperature measurement device
AM2045  Field Device Tooling
This intermediate 8 hour course will start by providing maintenance and engineering personal with the basic concepts and lay out of FDT frames. Students will then be given detailed instruction of proper DTM maintenance to keep software running smoothly. The class will be a combination of classroom and hands on training on a PTU (Process Training Unit). The lab work will focus on proper connection to field devices using different CommDTM’s with different hardware and providing proper field device documentation before the release of the devices back to service.

**Time:** 8am to 4-5pm  
**Duration:** 1 Day  
**Cost:** $380.00  
**Location:** 310 Technology Drive  
Bartow, FL 33830

**Course Covers:**  
FTD concepts  
DTM Maintenance  
DTM updates  
DTM Troubleshooting  
Connections to Field Devices
AMI2025 Valve Training

This valve course will start by providing maintenance technicians with a basic understanding of valve types and proper applications. This basic portion will focus on concepts applicable to virtually any manufacturer’s equipment. Following this introduction, we will proceed with in-depth training on valve controls and their proper uses in process control industries. The class will be a combination of classroom and hands-on training on the TriNova Process Training Unit, a full-scale, working process skid with on-line instrumentation and controls.

Time: 8am to 4-5pm
Duration: 1 Day
Cost: $380.00
Location: 310 Technology Drive
Bartow, FL 33830

Course Covers:
Proper valve and control work installation
Set up and commission valve controls
Diagnose and correct problems with control valves
Configure and document positioner configuration
AM2015   Air Dryer
This introductory course is designed to be an overview of the importance of drying compressed air. This is a hands on class that covers the basics of desiccant air dryers, troubleshooting the dryer and rebuilding valves. This class is also designed to give maintenance workers and engineers a clear understanding for specifying the proper dryer for the proper application.

**Time:** 8am to 4-5pm  
**Duration:** 1 Day  
**Cost:** $380.00  
**Location:** 310 Technology Drive  
Bartow, FL 33830

**Course Covers:**  
Need for Clean Dry Air  
Fundamentals of Compressed Air Systems  
Drain Valves  
Filter Products  
Need for Energy Management  
Troubleshooting  
Service Check List