

Pennsylvania College of Technology

Workforce Development & Continuing Education

Introduction to Electronic Skills TRS 262 Course Outline

Course Description: This course features a comprehensive overview of basic electronics skills. Topics covered include AC/DC fundamentals, use of test equipment, and basics of troubleshooting, schematic reading, basic solid-state devices, and soldering skills.

Textbook: Instructor handouts

Objectives:

- ✚ Understand the concept of electric current and how it can be directed in electronic circuits to perform useful work
- ✚ Understand the concepts of AC/DC fundamentals.
- ✚ Recognize common circuit components and determine their values from codes/information printed on them
- ✚ Select the most appropriate test instrument and properly connect it to measure voltage, current, resistance, or frequency
- ✚ Understand electronic schematics and relate them to the physical environment
- ✚ Understand the principles and fundamentals of electronic equipment such as diodes, transistors, resistors, solid state devices, and other electronic items
- ✚ Solder and desolder electronic components into boards and other devices
- ✚ Apply this knowledge in real industrial situations involving service and maintenance of electronic equipment including wiring and control devices

Prerequisites: None

Course Length: 40 hours

Course Outline:

✚ **AC/DC Fundamentals**

 **Use of Test Equipment**

 **Basics of Troubleshooting**

 **Schematic Reading**

 **Basic Solid State Electronics Devices**

 **Soldering Skills**