

**2020**

# MECHATRONICS

## PROGRAM DESCRIPTION

This program is based on the PMMI Mechatronics certification tests, which are nationally, industry-accepted, third-party credentials endorsed by the National Association of Manufacturers' Skills Certification System.

### MECHATRONICS LEVEL 1 CERTIFICATION TESTS

#### Mechatronics Certification Test - Industrial Electricity 1

This certificate covers basic safety practices for voltages up to 600 volts and knowledge of voltage, current and power in AC and DC circuits, circuit analysis of series and parallel loads, and basic understanding of resistors, capacitors, and inductors.

#### Mechatronics Certification Test - Mechanical Components 1

This certificate covers the principles and applications of the most commonly found mechanical drive components as used in packaging machinery and systems. Topics include simple mechanical power transmission devices such as shafts, belts, chains, cams and gears with an emphasis on application and troubleshooting.

#### Mechatronics Certification Test - Fluid Power 1

This certificate covers the function, operation, and application of common components used in fluid power circuits and systems. It also assesses the understanding of how fluid power components and accessories are placed together to create circuits and systems for powering industrial machines.

#### Mechatronics Certification Test - Programmable Logic Controllers (PLCs) 1

This certificate covers the principles and applications of different types of logic and programming used to control packaging machinery and systems. Topics include hardware and software composition of control systems, input/output interfacing, basic logic commands and common programming instructions.



### Program Schedule & Fees

- Program Structure: **70 hours**
  - Lab Classes - Saturday
    - Time: 7:00a – 1:00p

**Mechatronics consists of 4 Training Sessions  
Industrial Electricity 1, Mechanical Components  
1, Fluid Power 1 and PLCs 1.**

#### THIS SESSION:

#### Industrial Electricity 1

- Starts January 18<sup>th</sup>, 2020
- Pasco Training Center @  
Marchman Technical College Bldg. 6  
7825 Campus Drive New Port Richey, FL 34653
- Program Includes:
  - Materials
  - Amatrol License
  - PMMI Exam

**Session Fee: \$1,199**

*\*Financial aid/or scholarships may be available*