

MECHATRONICS, COLLEGE CREDIT CERTIFICATE

Program Code: MHCC

Meta-Major: STEM

Location(s): Cocoa, Palm Bay

Delivery Method(s): On-Campus

Previous Degree Required: HS Diploma

Eligible for Financial Aid: Yes

Additional Limited Access Application Process Required: No

Program Testing Requirements:

Classification of Instructional Programs (CIP) Code: 15.0000

Florida Department of Education CIP Code: 0615000013

This 30 credit hour certificate program offers a sequence of courses designed to prepare individuals for careers in the advanced manufacturing sector. Students will learn how to assemble, operate, maintain, troubleshoot and repair automated machinery. The program includes technical instruction in a classroom and hands-on training in a lab setting to provide the knowledge and skills necessary for employment in an advanced manufacturing environment.

The certificate is part of the [Engineering Technology AS](#) degree program.

[Visit the program page for more details and how to apply.](#) Curriculum includes but is not limited to:

- instruction in safety and quality
- use and care of metal fabrication tools and equipment
- precision measurement
- electronic circuitry
- computer aided design
- robotics
- fluid systems
- programmable logic controllers

Certificate Requirements

Code	Title	Credit Hours
Major Courses		
CETC 1123	Microprocessor Fundamentals	4
EETC 1025	Circuit Fundamentals	4
ETDC 2364	SolidWorks Fundamentals	3
ETI 1701	Industrial Safety	3
ETI 2110	Introduction to Quality Assurance	3
ETIC 2001	Applied Manufacturing Mechanics	3
ETMC 1010	Mechanical Measurement	1
ETMC 2315	Hydraulics and Pneumatics	3
ETSC 1542	Programmable Logic Controllers (PLC)	3
ETSC 1603	Fundamentals of Robotics and Simulation	3
Total Credit Hours		30

Course	Title	Credit Hours
Year 1		
Term 1		
CETC 1123	Microprocessor Fundamentals	4

EETC 1025	Circuit Fundamentals	4
ETDC 2364	SolidWorks Fundamentals	3
ETI 1701	Industrial Safety	3
Credit Hours		14

Term 2

ETI 2110	Introduction to Quality Assurance	3
ETIC 2001	Applied Manufacturing Mechanics	3
ETMC 1010	Mechanical Measurement	1
ETMC 2315	Hydraulics and Pneumatics	3
ETSC 1542	Programmable Logic Controllers (PLC)	3
ETSC 1603	Fundamentals of Robotics and Simulation	3
Credit Hours		16

Total Credit Hours **30**

Learning Outcomes: Mechatronics CCC

1. Solve DC and AC circuit voltage and currents.
 - *Core Ability Supported: Process Information*
2. Explain use of software to control hardware.
 - *Core Ability Supported: Process Information*