CENTRAL PIEDMONT COMMUNITY COLLEGE · ENGINEERING TECHNOLOGIES

Associate in Applied Science

Mechatronics Engineering Technology

(A40350)

Engineering Technologies

For more information: Jorma Harkonen Jorma.harkonen@cpcc.edu 704.330.6416

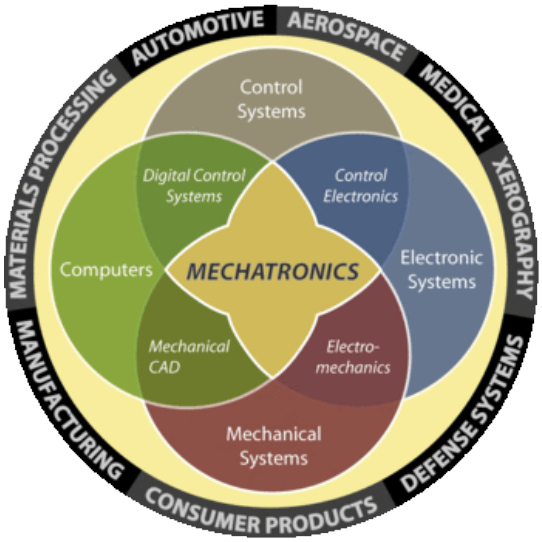
Get There.

Overview

This curriculum is designed to prepare individuals for jobs requiring electrical, mechanical, and computer skills necessary to work on complex systems found in manufacturing environments.

Course work includes basic electricity, fluid mechanics, mechanical drives, instrumentation, motor control, and courses specific to electrical, mechanical, or controls specialties.

Graduates should be qualified for the jobs such as industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, and upgrades of machinery and the associated control system. Graduates will be eligible to take exam for the PMMI Mechatronics Certificate for Introduction to Industrial Electricity and other certificate modules as they become available.



The Associate in Applied Science Degree–Mechatronics Engineering Technology is awarded by the College upon completion of this program.

Admission

- High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
  Many courses have prerequisites or co-requisites; check the catalog for details.

Engineering Technologies
Change your direction!

FIRST STEP TO ENROLL:
Call CPCC Jorma Harkonen
704.330. 6416
CPCC is an Equal Opportunity Institution.

Get There.
CENTRAL PIEDMONT COMMUNITY COLLEGE

Fall first semester		Lecture	Lab	Credit
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry 1	2	2	3
EGR 125	Application Software for Technician	1	2	2
ISC 112	Industrial Safety	2	0	2
EGR 120	Engineering and Design Graphics	2	2	3
MEC 111	Machine Processes 1 TE	1	4	3
Total				16

Spring second semester		Lecture	Lab	Credit
MAT 122	Algebra/Trigonometry II	2	2	3
PHY 131	Physics—Mechanics	3	2	4
MNT 222	Industrial Systems Schematics	1	2	2
ISC 212	Metrology TE	1	2	2
ELC 111	Introduction to Electricity TE	2	2	3
Total				14

Summer third semester		Lecture	Lab	Credit
ENG 114	Professional Research & Reporting	3	0	3
	Humanities/Fine Arts Elective	3	0	3
	Behavioral & Social Sciences Elective	3	0	3
Total				9

Fall fourth semester		Lecture	Lab	Credit
ELC 130	Basic Motors and Controls	2	2	3
ELC 213	Instrumentation	3	2	4
ELN 260	Program Logic Controllers	3	3	4
MEC 130	Mechanisms	2	3	3
ISC 132	Manufacturing Quality Control TE	2	3	3
Total				17

Spring fifth semester		Lecture	Lab	Credit
COM 110	Intro. to Communication	3	0	3
MEC 265	Fluid Mechanics	2	2	3
ATR 112	Intro. to Automation	2	3	3
	Technical Elect			10
Total				19

Technical Electives		Lecture	Lab	Credit
ATR 211	Robot Programming	2	3	3
DFT 154	Intro to Solid Modeling	2	2	3
ELN 133	Digital Electronics	3	3	4
ELN 137	Electronic Devices &Circuits	4	3	5
MAC 132	Blueprint Reading/ Machine II	1	2	2
MEC 161	Manufacturing Processes I	3	0	3
MEC 180	Engineering Materials	2	3	3
MEC 210	Applied Mechanics	2	2	3
MEC 260	Fundamentals of Machine Design	2	2	3
PCI 162	Instrumentation Controls	2	3	3
PCI 170	DAQ and Control	3	3	4
PCI 172	SCADA Systems	3	3	4
PCI 173	Programmable Systems	3	3	4
WLD 112	Basic Welding Processes	0	4	2