CENTRAL PIEDMONT COMMUNITY COLLEGE · ENGINEERING TECHNOLOGIES

Associate in Applied Science

Mechatronics Engineering Technology

(A40350) Electrical Track

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Engineering Technologies

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
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CENTRAL PIEDMONT COMMUNITY COLLEGE

Electrical track

Fall first semester		Lecture	Lab	Credit
ENG 111	Expository Writing	3	0	3
MAT 121	Algebra/Trigonometry 1	2	2	3
ELC 138	DC Circuit Analysis	2	3	3
EGR 125	Application Software for Technician	1	2	2
ISC 112	Industrial Safety	2	0	2
DFT 151	CAD I	2	3	3
Total				16

Spring second semester		Lecture	Lab	Credit
MAT 122	Algebra/Trigonometry 2	2	2	3
PHY 131	Physics—Mechanics	3	2	4
ELC 139	AC Circuit Analysis	2	3	3
ELN 133e	Introduction to Electricity	2	2	4
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 135	Electrical Machines I	2	2	3
ELC 213	Instrumentation	3	2	4
ELN 260	Program Logic Controllers	3	3	4
MEC 130	Mechanisms	2	2	3
ELN 137	Electronics Devices & Circuits	4	3	5
Total				19

Spring fifth semester		Lecture	Lab	Credit	
ELC 136	Electrical Machines II	3	3	4	
ATR 112	Intro. to Automation	2	3	3	
HYD 110	Hydraulics/Pneumatics	2	3	3	
COM 110	Intro. to Communication	3	0	3	
	Technical Elective			4	
Total				17	75

Technical Electives		Lecture	Lab	Credit
ATR 211	Robot Programming	2	3	3
PCI 162	Instrumentation Controls	2	3	3
PCI 170	DAQ and Control	3	3	4
PCI 172	SCADA System	3	3	4
PCI 173	Programmable Systems	3	3	4