

Mechatronics

Associate in Applied
Science 60 Credit Hours

Purpose

The Mechatronics Program prepares students for industrial automation in applications (engineering) positions, as well as service (maintenance) type positions by providing knowledge and hands-on experience in electricity, fluid power, sensors, control systems, robotics, and programmable controllers - components that are used in a wide variety of industrial automation systems, machines, and equipment.

The program is designed for people who are interested in product development, plant maintenance, machine set-up and installation, and troubleshooting of modern computer controlled machines. Mechatronics Engineering Technician jobs are found in the manufacturing, energy, medical, electronics, agriculture, biotechnology, and automotive industries.

The full Mechatronics Technology Program is available on the Logan Campus. The Boone/Lincoln, Williamson, and Wyoming/McDowell campuses offer the general education/program support courses only.

First Semester	Title	Credit Hours
EN 101 or EN 101A	~English Composition I	3
EG 103	Electrical Calculations	3
EG 105 (E)	Industrial Safety	1
EG 107 (E)	Introduction to Circuits	4
OR 105 (E)	Orientation to Technical Programs	1
SP 103	~Speech Fundamentals	3
		15
Second Semester	Title	Credit Hours
MT 124 or MT 124A	Technical Math or Technical Math, Enhanced	3
MX 110 (E)	Introduction to Mechatronics	2
MX 120	Mechanical Power I	2
MX 130	Fluid Power I	2
MX 180	PLC Fundamentals	1
MX 184	PLC Interfacing and HMIS	1
MX 186	PLC Applications	1
MX 190	Industrial Robotics	3
		15
Third Semester	Title	Credit Hours
PH 200 or higher	~Conceptual Physics	4
	¹ Social Science Elective	3
	² Specialization Courses	8
		15
Fourth Semester	Title	Credit Hours
CS 102 (E)	Computer Literacy	3
MX 298	Mechatronics System Design - Capstone	2
	² Specialization Courses	10
		15

~ Designates courses on the statewide Core Coursework Transfer Agreement.

¹Choose from any Psychology or Sociology course

²Specialization Courses (minimum of 18 credit hours): Students must complete a series of restricted electives. Courses offered to fulfill the electives will be structured around current business and industry demands. Courses are limited to Electrical, Mechatronics, Welding, Robotics, and AutoCAD courses not already required by the program and other related courses as approved by the Dean, School of Career and Technical Studies.

This degree program provides students the opportunity to receive credit for their high school EDGE courses (<http://careertech.k12.wv.us/edge/edgeCollege.html>) as designated by the (E) within the program sequence.

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