



Wayne
County
Community
College
District

Mechatronics Technology

PAY

The median annual wage for electro-mechanical technicians was \$56,740 in May 2017.

JOB OUTLOOK

Employment of electro-mechanical technicians is projected to grow 4 percent, slower than average. Electro-mechanical technicians are generalists in technology, and their broad skill set will help sustain demand for their services. Job prospects are likely to be best for electro-mechanical technicians who train in a field known as mechatronics, which provides an understanding of four key systems:

- Mechanical systems
- Electronic systems
- Control systems
- Computer systems

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, April 2018, Electro-mechanical Technicians, on the Internet at <http://www.bls.gov/ooh/architecture-and-engineering/electro-mechanical-technicians.htm>

ABOUT THE PROGRAM

The Mechatronics Technology College Certificate is designed to prepare technicians through cross-training to work in the diverse fields of mechanical, electrical, and industrial automation. Mechatronics technology and industrial automation is a combination of mechanical systems, electrical systems, fluid power control systems and computer control technology with sensors, transducers and actuators which are integrated to perform some facet of manufacturing. Robot sensors, conveyor systems and software are all components of Computer Integrated Manufacturing (CIM) which is an outcome of Mechatronics. Students with this diverse set of skills are better prepared for the evolving manufacturing industry and will be trained to manufacture a product or perform a task with minimal human intervention through automation. Students who complete the program are prepared for work in a variety of industries to include food processing, pulp and paper metals manufacturing and automated warehousing.

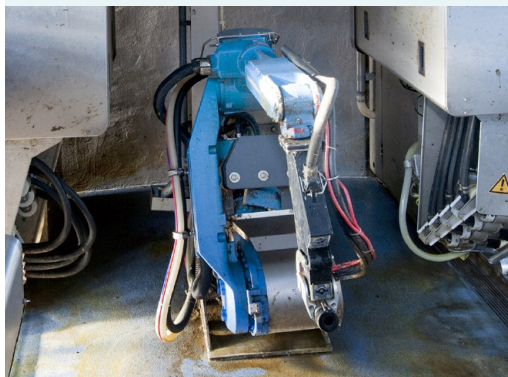


WHAT DO ELECTRO-MECHANICAL TECHNICIANS DO?

Electro-mechanical technicians combine knowledge of mechanical technology with knowledge of electrical and electronic circuits. They install, troubleshoot, repair, and upgrade electronic and computer-controlled mechanical systems, such as robotic assembly machines.

WHERE DO THEY WORK?

Electro-mechanical technicians work closely with electrical and mechanical engineers. They work primarily in manufacturing, utilities, and research and development.



Recommended Sequence of Courses

Mechatronics Technology: College Certificate

CR. No.	COURSE TITLE	CREDITS
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SEMESTER 1

CT 203	Digital Logic	4
CT 205	Introduction to Microprocessors . .	4
EE 101	Circuit Analysis I	4
EE 107	Math for E/E I	4

SEMESTER TOTAL16

SEMESTER 2

EE 102	Circuit Analysis II	4
EE 111	Solid State Devices	3
EE 115	Math for E/E II	4
MCT 202	Introduction to Robotics	3
MCT 208	Programmable Logic Controllers . .	3

SEMESTER TOTAL17

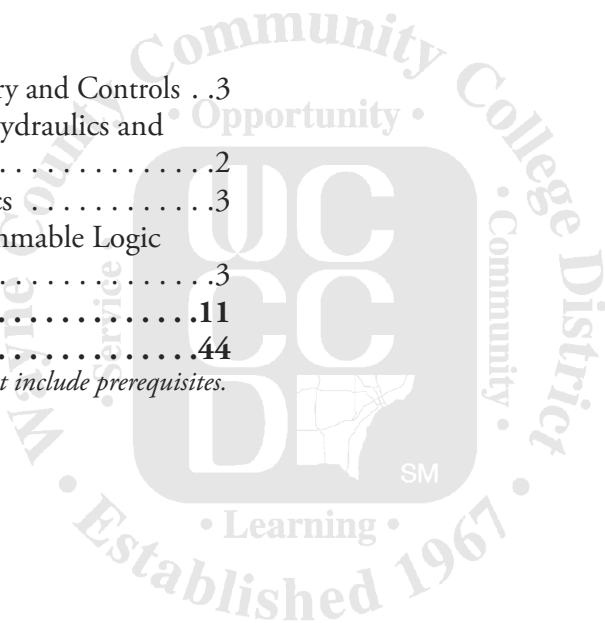
SEMESTER 3

MCT 203	Electrical Machinery and Controls . .	3
MCT 207	Introduction to Hydraulics and Pneumatics	2
MCT 212	Advanced Robotics	3
MCT 215	Advanced Programmable Logic Controllers	3

SEMESTER TOTAL11

CERTIFICATE TOTAL44

Note: Certificate total hours may not include prerequisites.



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