

ADVANCED MANUFACTURING and MECHATRONICS - Certificate of Completion
Effective Catalog Year 2018 – 2019

The Advanced Manufacturing and Mechatronics Certificate of Completion program is designed for those students planning to work in a manufacturing industry. The Mechatronics Certificate of Completion program will prepare students to enter the workforce with the ability to operate and maintain equipment found in a modern manufacturing environment.

As manufacturing advances into a more automated production system, a higher level of technical expertise is required of the labor force. The certificate holders will have experience with the operation and maintenance of computer numeric controlled (CNC) machines and programmable logic controllers (PLCs), as well as a working knowledge of basic electronics, pneumatic, and mechanical systems.

First Semester

MATH 161 or higher (not MATH 171 or MATH 181)	Math General Education Requirement	3-6 cr.
ELET 144	DC/AC Electric Circuits	4 cr.
ENGR 191	Autocad 2D Basics I	3 cr.
MNFG 102	Manufacturing Process	<u>3 cr.</u>
		13-16 cr.

Second Semester

ELET 150	Automated Control Systems	4 cr.
MECH 150	Introduction to Hydraulics and Pneumatics	4 cr.
MNFG 114	Principles of Quality Control for Manufacturing	3 cr.
MNFG 140	Introduction to CNC	<u>3 cr.</u>
		14 cr.
	Total Credits	27-30 cr.

Board of Trustees Approval Date: March 29, 2018