

Mechatronics and Robotics Systems

2017-2018 Catalog

Award Granted Upon Completion: Associate in Applied Science in Mechatronics and Robotic Systems

Credits/Contacts Required: 60/60

Major code: 03/338

CIP Code: 150403

Description

Mechatronics is an interdisciplinary field involving mechanical, electronic, computer, robotic, and control systems. Students will gain the technical knowledge and skills needed to install, repair and maintain electromechanical, fluid power, process control or robotic systems. Mechatronics and Robotics Systems graduates will be prepared for employment in a wide variety of jobs in a steadily growing field.

General Education Requirements – Min 15 credits

		<u>Cr</u>
ENGL-101	Rhetoric & Composition	3
BUSN-177	Mathematics of Business -OR- MATH-105 -OR- MATH-107	3/4
XXXX-xxx	Social Behavioral Science\Humanities	3
XXXX-xxx	General Education Electives	5-6

Program Requirements (Minimum 32)

ELEC-130	Circuit Fundamentals I	4
ELEC-145	Basic Process Control	4
ELEC-180	Electrical Machinery and Controls	4
ELEC-240	Real Time Robotics Systems	4
ELEC-245	Robotic Vision Systems	4
ELEC-285	Fluid Power	4
ELEC-290	Introduction to Programmable Logic Controllers	4
ELEC-295	Mechatronics	4
XXXX-xxx	Approved Electives	13

Approved Elective (13 Credits)

CNSS-130	Introduction to Networks	4
CNSS-150	A plus Computer Maintenance	4
CNSS-220	Network Design	4
ELEC-135	Circuit Fundamentals II	4
ELEC-160	Electronics I	4
ELEC-170	Digital I Fundamentals	4
ELEC-272	Mechatronics Co-op Internship	1- 8
TECH-100	Basic Machine Tool Operation	4
TECH-101	Blueprint Reading	2
TECH-105	Materials of Industry	4
WELD-110	Intro to Oxygen-Fuel Welding and Cutting	4
WELD-120	Arc Welding	4
XXXX-xxx	Any General Education Course	

Suggested Sequences Per Semester

		<u>Cr / Ct</u>
First Semester		
ENGL-101	Rhetoric & Composition	3/3
ELEC-130	Circuit Fundamentals I	4/4
ELEC-285	Fluid Power	4/4
XXXX-xxx	Approved Electives	4/4
		15/15
Second Semester		
XXXX-xxx	Approved Electives	4/4
ELEC-145	Basic Process Control	4/4
ELEC-180	Electrical Machinery and Controls	4/4
BUSN-177	Mathematics of Business -Or- MATH-105 -Or- MATH-107	3-4/3-4
		15/15
Third Semester		
ELEC-240	Real Time Robotics Systems	4/4
ELEC-290	Introduction to Programmable Logic Controllers	4/4
XXXX-xxx	Social Behavioral Science or Humanities	3/3
XXXX-xxx	General Education Elective	3/3
		14/14
Fourth Semester		
ELEC-245	Robotic Vision Systems	4/4
ELEC-295	Mechatronics	4/4
XXXX-xxx	Approved Elective	5/5
XXXX-xxx	General Education elective	3/3
		16/16

All Internships and Co-ops may require that the student pass a criminal background check.