Mechatronics: Mechatronics Specialist

Holland code family: Doers

Certificate of Completion

www.roguecc.edu/Counseling/HollandCodes/test

About the Program

Today's manufacturing industry uses robots and other advanced fabrication and assembly equipment to produce a wide variety of products. All of these systems rely on digital controls including programmable logic controllers. Mechatronics technicians calibrate, troubleshoot, and repair both the equipment and the controllers. Mechatronic technicians in southern Oregon are needed by manufacturers in the food processing, wood products, and metal fabrication industries.

The Mechatronics Specialist three-term certificate prepares students for entry-level positions in today's fast-paced manufacturing environment. Typical positions for graduates of the certificate program include maintenance technician and mechatronics assistant. Completion of the certificate also completes the first three terms of the Mechatronics AAS degree. Certificate completion can also lead to entry into apprenticeship training.

Foundational skills in math, technical writing, safety, workplace survival, and workplace expectations are combined with welding, hydraulics, and other applied courses. Most of the courses in the program are hands-on, open-lab courses supported by online instruction providing students exceptional flexibility when working around family, employment, or other commitments.

The U.S. Department of Education requires disclosure of specific information about career and technical certificate programs to prospective students. Data includes Standard Occupational Classification (SOC) codes, graduation rates, tuition and fees, typical costs for books and supplies, job placement rates for students completing the programs, and median loan debt incurred by students completing the programs. For more information visit www.roguecc.edu/GainfulEmployment.

Entry Requirements

Students are required to complete the Placement Process to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill level as determined by the results of their placement assessment. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college registration policies and with the Manufacturing/Engineering Technology Department chair's recommendation. In order to ensure that coursework is current, program courses over 10 years old must be reviewed and approved by the appropriate department chair before being accepted toward core requirements. Students must complete coursework in their major at a "C" or better level before proceeding to advanced coursework. Each College Now credit student must meet with the department chair to determine placement.

Graduation Requirements

Students are required to complete all courses in this program with a grade of "C" or better to receive their degrees. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned the equivalent of a "C" or better grade.

What skills will you learn?

Visit http://go.roguecc.edu/department/program-learning-outcomes.
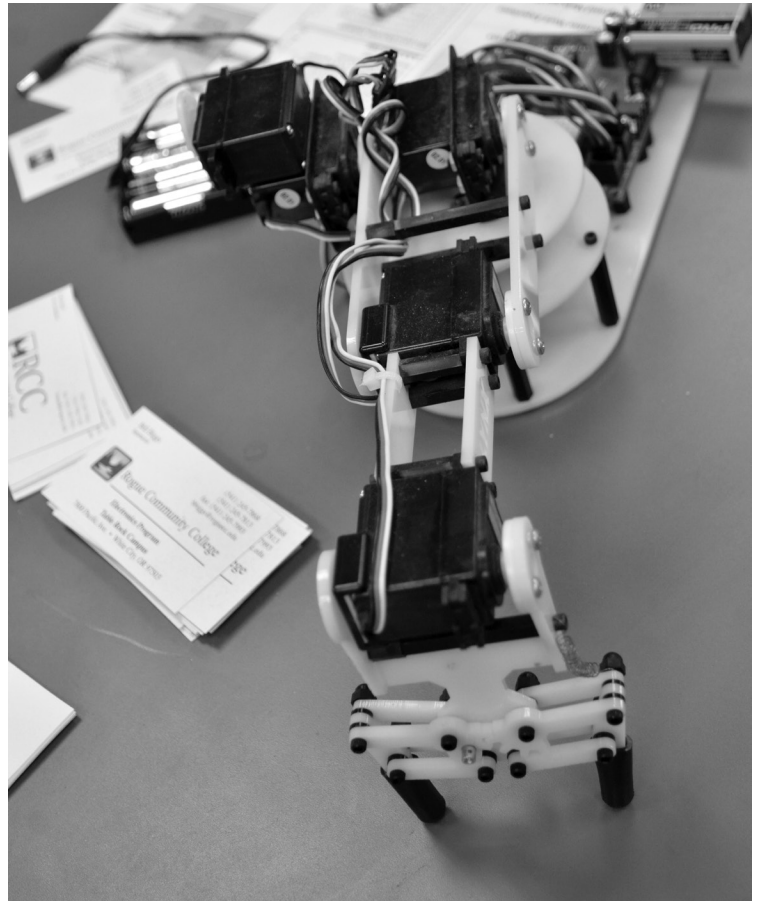
What are the employment opportunities?

Visit http://www.roguecc.edu/GainfulEmployment.

Prerequisites

Course No.	Course Title	Credits
CS	Approved 3-4 credit computer science class, CS120 or above or computer proficiency [1,2]	0-4
MEC102	Basic Hand Tools or demonstrated proficiency	0-3
MTH63	Applied Algebra I or higher level math [1]	4
WR115	Introduction to Expository Writing or BT113 Business English I or higher level composition [1]	3-4
Total Prerequisite Credits		**7-15**

First Year Required Courses

Course No.	Course Title	Credits
First Term		
EET104	Fundamentals of Manufacturing Electronics	4
MEC103	Industrial Safety	1
MFG116	Metrology	2
MFG121	Manufacturing Processes I	4
WLD111	Technology of Industrial Welding I or WLD101 Welding Fundamentals I and WLD102 Welding Fundamentals II	6
		17
Second Term		
HE112	Emergency First Aid	1
MEC130	Hydraulics I	3
MEC135	Mechanical Drives I	4
MET105	Blueprint Reading – Mechanical	3
MFG122	Manufacturing Processes II	4
		15
Third Term		
BT101	Human Relations in Organizations or PSY101 Psychology of Human Relations	3
EET150	PLC Motor Control	3
MEC125	Pneumatics I	3
MFG210	AC/DC Electrical Systems	3
MFG232	Electronic Motor Controls I	3
		15

TOTAL PROGRAM CREDITS   **47**

[1] Required for graduation.

[2] Successful completion of CS120 or otherwise meeting the proficiency requirement within the last 10 years fulfills this requirement. Contact a computer science adviser to help determine placement.

For more information contact the Manufacturing and Engineering Technology Department:

Grants Pass or Medford. 541-245-7902

Toll free in Oregon . . . . 800-411-6508, Ext. 7902

email . . . . manufacturing@roguecc.edu

Web address . . . . www.roguecc.edu/manufacturing

TTY . . . . Oregon Telecom Relay Service, 711

This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.

RCC is an open institution and does not discriminate. For RCC's non-discrimination policy and a full list of regulatory specific contact persons visit the following webpage: www.roguecc.edu/nondiscrimination.

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