

Mechatronics

2017-2018 Catalog

Award Granted Upon Completion: Certificate in Mechatronics
Credits/Contacts Required: **24/24**
Major code: 04/438

CIP Code: 150403

Description

Mechatronics is a relatively new term used to describe how computers control electrical and mechanical systems. Mechatronics is present in any automated system, from HVAC (Heating, Ventilating and Air Conditioning) systems to robotic assembly lines. The Mechatronics certificate is designed to provide an introduction to principles and basic skills used in a wide variety of fields. Students will learn the principles needed to install, maintain, and repair mechanical, electrical, control, and fluid power systems.

Requirements – Min 24 credits

ELEC-130	Circuit Fundamentals I	4
ELEC-180	Electrical Machinery and Controls	4
ELEC-285	Fluid Power	4
XXXX-XXX	Approved Electives*	12

***Approved Electives (Choose 12 credits)**

ELEC-145	Basic Process Control	4
ELEC -290	Introduction to Programmable Logic Controllers	4
MATH-102	Introduction to Technical Math	4
TECH-100	Basic Machine Tool Operation	4
TECH-101	Blueprint Reading	2
TECH-105	Materials of Industry	4
WELD-110	Introduction to Oxygen-Fuel Welding and Cutting	3
WELD-120	ARC Welding	4

Suggested Sequences Per Semester

		<u>Cr / Ct</u>
First Semester		
ELEC-130	Circuit Fundamentals I	4/4
ELEC-285	Fluid Power	4/4
XXXX-xxx	Approved Elective	4/4

Second Semester		
ELEC-180	Electrical Machinery and Controls	4/4
XXXX-xxx	Approved Elective	4/4
XXXX-xxx	Approved Elective	4/4

12/12

Bay De Noc Community College

Undergraduate certificate in Mechatronics

Program Length: 12 months

Students graduating on time

N/A* of Title IV students complete the program within 12 months¹

* Fewer than 10 students enrolled in this program. This number has been withheld to preserve the confidentiality of the students.

Program Costs*

\$3,672 for in-state tuition and fees

\$9,576 for out-of-state tuition and fees

\$1,200 for books and supplies

\$6,130 for off-campus room and board

\$6,130 for on-campus room and board

Other Costs:

No other costs provided.

Visit website for more program cost information: www.baycollege.edu/Admissions/Paying-for-College/Financial-Aid/Cost-of-Attendance.aspx

The amounts shown above include costs for the entire program, assuming normal time to completion. Note that this information is subject to change.

Students Borrowing Money

8% of students who attend this program borrow money to pay for it²

The typical graduate leaves with

N/A* in debt³

* Fewer than 10 students completed this program within normal time. This number has been withheld to preserve the confidentiality of the students.

The typical monthly loan payment

N/A* per month in student loans with **N/A*** interest rate⁴

* Fewer than 10 students completed this program within normal time. This number has been withheld to preserve the confidentiality of the students.

The typical graduate earns

not provided per year after leaving this program⁵

Graduates who got jobs

N/A* of program graduates got jobs

* We are not currently required to calculate a job placement rate for program completers.

Program graduates are employed in the following fields:

Electro-Mechanical Technicians: <http://onetonline.org/link/summary/17-3024.00>

Robotics Technicians: <http://onetonline.org/link/summary/17-3024.01>

Licensure Requirements⁶

* Program has no licensure requirements in any state.

Additional Information:

No additional notes provided.

Date Created: 4/5/2017

These disclosures are required by the U.S. Department of Education

Footnotes:

¹ The share of students who completed the program within 100% of normal time (12 months).

² The share of students who borrowed Federal, private, and/or institutional loans to help pay for college.

³ The median debt of borrowers who completed this program. This debt includes Federal, private, and institutional loans.

⁴ The median monthly loan payment for students who completed this program if it were repaid over ten years at a NA* interest rate.

⁵ The median earnings of program graduates who received Federal aid.

⁶ Some States require students to graduate from a state approved program in order to obtain a license to practice a profession in those States.

⁷ State Job Placement Rate: N/A

⁸ Accreditor Job Placement Rate: N/A