

ELECTROMECHANICAL ENGINEERING TECHNICIAN - MECHATRONICS (EMTN)

Ontario College Diploma | 4 semesters | Barrydowne

Mechatronics is an emerging field that combines Mechanical Engineering and Electronics, with elements of automation, computer programming and telecommunications. Working in the College's state-of-the-art lab facilities, you will develop the problem-solving skills and data analysis ability to be a valuable contributor to a wide variety of industrial applications; from industrial equipment design and maintenance to robotics and automation. You will learn how to use computer-aided design (CAD) to design mechanical components and assemblies in 3D.

You will then take it one step further, and fabricate your design(s) in our state-of-the-art machining and fabrication labs. You will also have unique opportunities to put your skills into practice by working on real community and applied research projects.

Graduates from the Technician diploma may be eligible to register as a Certified Technician (C.Tech) with the Ontario Association of Certified Technicians and Technologists (OACETT)

Quick Links

How to Apply (<http://cambriancollege.ca/apply/>)

Engineering Technology (<http://cambriancollege.ca/field-of-study/engineering-technology/>)

Admission Requirements

For graduates of the new curriculum (OSS): Ontario Secondary School Diploma (30 credits) or equivalent or mature student status, including:

- Any grade 12 English (U) or (C)
- Any grade 12 mathematics (C) or (U) (MCT4C is highly recommended)

Recommended:

- Any grade 11 physics (U) or grade 12 physics (C) or (U)

APPLY NOW! (<https://www.ontariocolleges.ca/en/apply-now/>)

Program Delivery

2022-2023

This program will be delivered in the following terms:

Fall Term Start

1. SEMESTER 1 Fall 2022
2. SEMESTER 2 Winter 2023
3. SEMESTER 3 Fall 2023
4. SEMESTER 4 Winter 2024

For specific term start/end dates and other key dates/deadlines, please see the Academic Schedule (<http://cambriancollege.ca/apply/how-to-apply/academic-schedule/>) on our website.

Program of Study for 2022-23 Academic Year

Semester 1		Credits
CAD 1001	Engineering Graphics ¹	3
ELC 1013	Electrical Fundamentals ¹	4
ENG 1002	College Communications	3
MEC 1000	Mechatronics I ¹	4
MEC 1002	Introduction to Metrology and Geometric Dimensioning	3
MEC 1003	Engineering Materials	3
MTH 1050	Algebra I	3
Credits		23
Semester 2		
CAD 1003	Solid Modeling ¹	3
ELC 1215	Motor Control Fundamentals ¹	4
FAB 1000	Fabrication Processes ¹	4
MEC 1001	Mechatronics II ¹	4
MTH 1250	Algebra II	3
MCH 1005	Introduction to Fluid Power	4
One General Education course. ²		3
Credits		25
Semester 3		
CAD 1200	Computer Aided Drafting II ¹	2
ELC 2425	PLC Basic Programming ¹	4
ELN 2320	Power Electronics I ¹	5
ENG 1754	Technical Communication	3
MCH 1001	Mechanics ¹	4
MTH 2325	Technical Math III	3
One General Education course. ²		3
Credits		24
Semester 4		
CMP 1015	Intermediate PLC ¹	3
MCH 1002	Thermodynamics	3
WHS 1002	Workplace Safety and Standards	3
INT 1001	Instrumentation I	3
CAD 1004	Advanced Solid Modelling	4
One General Education course. ²		3
Credits		19
Total Credits		91

¹ Course with Lab component.

² For more information regarding General Education courses, click here (<https://cambriancollege.ca/general-education-electives/>).

Fees

Tuition and Ancillary Fees

Please see our fees page (<http://cambriancollege.ca/fees/>) for the breakdown of tuition and mandatory ancillary fees by program and semester for both domestic and international students.

Books & Supplies

In your first year, you can expect to spend approximately \$1000 on textbooks, materials, and Personal Protective Equipment (PPE). Please note that this does not include any BYOD computer requirements.

Graduate Options

Employment Opportunities

Graduates are prepared for employment opportunities as:

- Automation technician
- Electromechanical design technician
- Robotics technician
- Robotics programmer
- Control designer / technician
- Custom machine design / integrators

College/University Degree Opportunities

Graduates from this program may continue their studies at college/university and may receive credit for their prior College education.

Refer to College/University Agreements (<http://www.cambriancollege.ca/agreements/>) for further information.

Contacts

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