

# MECHANICAL ENGINEERING TECHNOLOGY (METY)

## Ontario College Diploma | 6 semesters | Barrydowne Campus

Mechanical Engineering Technologists put ideas into action. Mechanical Engineering is a broad field of engineering that is present in almost every industry. From automotive to aerospace, from biomedical to power, the possibilities for a rewarding career in Mechanical Engineering Technology are endless.

If you're interested in designing, testing, fabricating, or constructing various types of mechanical devices, then our Mechanical Engineering Technology program is for you.

You will learn how to use computer-aided design programs like AutoCAD and SolidWorks to develop mechanical components in 2D & 3D. You'll then have opportunities to take your designs a step further by producing them in our on-campus labs via additive and subtractive manufacturing techniques.

You will also have unique opportunities to put your skills into practice by working on real community and applied research projects in labs that are equipped with state-of-the-art, advanced manufacturing equipment. Manufacturing techniques like 3D printing and CNC machining are processes you'll explore throughout the program.

In your third year, you will expand your knowledge of design, quality assurance, and manufacturing process, as well as project management to ensure that you are career-ready. Many of the third year courses are available in a synchronous, virtual format for student flexibility.

### Program Highlights

- 3 years – 6 semesters

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

Recommended:

- Any grade 12 physics (C) or (U)
- Computer competency in relevant software

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

### Program Delivery

#### 2023-2024

This program will be delivered in the following terms:

#### Fall Term Start

1. SEMESTER 1 Fall 2023
2. SEMESTER 2 Winter 2024
3. SEMESTER 3 Fall 2024
4. SEMESTER 4 Winter 2025
5. SEMESTER 5 Fall 2025
6. SEMESTER 6 Winter 2026

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 2023-24 Academic Year

Students are required to successfully complete an online Lab Safety course (in Moodle) when starting their program at Cambrian. This course must be completed prior to entering the labs (as identified in the table below) in the Schools of Skills Training, Engineering Technology and Environmental Studies.

Semester 1		Credits
ENG 1002	College Communications	3
MEC 1003	Engineering Materials	3
MTH 1050	Algebra I	3
PHY 1112	Physical Principles I <sup>1</sup>	4
MEC 1002	Introduction to Metrology and Geometric Dimensioning	3
CAD 1001	Engineering Graphics	3
One General Education Course. <sup>2</sup>		3
<b>Credits</b>		<b>22</b>
Semester 2		Credits
ENG 1754	Technical Communication	3
MTH 1250	Algebra II	3
PHY 1212	Physical Principles II	3
MCH 1207	Fluid Mechanics	4
MCH 1165	Industrial Design I <sup>1</sup>	3
CAD 1003	Solid Modeling <sup>1</sup>	3
MCH 1153	Mechanical Lab I <sup>1</sup>	3
<b>Credits</b>		<b>22</b>
Semester 3		Credits
MTH 2325	Technical Math III	3
MTH 2332	Applied Calculus	3
MCH 1301	Dynamics of Machines	3
MCH 1303	Strength of Materials	5
MCH 1365	Industrial Design II <sup>1</sup>	3
ELC 1013	Electrical Fundamentals	4
One General Education Course. <sup>2</sup>		3
<b>Credits</b>		<b>24</b>
Semester 4		Credits
CAD 1004	Advanced Solid Modelling <sup>1</sup>	4
INT 1001	Instrumentation I	3
MCH 1002	Thermodynamics	3
MCH 1401	Advanced Structural Design	4
MCH 1402	Materials and Processes	3
MCH 1410	Codes and Standards	3

One General Education Course. <sup>2</sup>		3
	<b>Credits</b>	<b>23</b>
<b>Semester 5</b>		
MCH 1215	Engineering Operations Management	4
MCH 1103	Advanced Dynamics	3
MTH 1180	Advanced Calculus	4
MCH 1225	Advanced Fluid Mechanics	3
MCH 1160	Mechanical Lab I <sup>1</sup>	2
RES 1100	Research Project I <sup>1</sup>	3
	<b>Credits</b>	<b>19</b>
<b>Semester 6</b>		
MCH 1230	Metrology and Quality Control	3
MCH 1220	Advanced Strength of Materials	3
MCH 1113	Advanced Dynamics of Machines	3
MCH 1150	Machine Design	3
ENE 1101	Applied Thermodynamics and Heat Transfer	2
MCH 1161	Mechanical Design Lab II <sup>1</sup>	3
RES 1200	Research Project II <sup>1</sup>	4
	<b>Credits</b>	<b>21</b>
	<b>Total Credits</b>	<b>131</b>

<sup>1</sup> Course with Lab Component

<sup>2</sup> 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 may find employment in areas such as:

- Consulting engineering firms
- Manufacturing companies
- Resource industries
- Mechanical designer
- Sales representative
- Government departments

### College/University Degree Opportunities

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

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

## Contacts

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### INTERNATIONAL ADMISSIONS

[mailboxadmissions@cambriancollege.ca](mailto:mailboxadmissions@cambriancollege.ca)