

# MECHANICAL ENGINEERING TECHNICIAN - INDUSTRIAL MAINTENANCE (IMTN)

## Gain the skills to become an industrial maintenance expert

In our millwright lab, you'll learn to install, repair, and maintain complex machinery typically found in the mining, refining, forestry, and manufacturing sectors. You'll gain hands-on experience working on industrial equipment, including rigging, hydraulics, and pump stations.

You'll build upon your electrical, mechanical, instrumentation, and computer-aided drafting skills while sharpening your troubleshooting and repair abilities. Our program features an optional, paid co-op directly related to your program of study where you'll apply your skills in an actual work environment. Your diploma equates to the three levels of theory required for your Certificate of Qualification apprenticeship and prepares you for millwright jobs in a wide range of industrial operations. (<http://cambriancollege.ca/field-of-study/skills-and-trades-training/>)

## Program highlights

- The only onsite material handling loop in an Ontario College gives you experience installing, troubleshooting, repairing, and maintaining industrial equipment
- Diploma equates to 3 levels of required theory towards your apprenticeship Certificate of Qualification
- Optional paid co-op to gain industry training
- Opportunity for select students to participate in the Ontario Skills Competition

## 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
IMM 1116	Tools, Materials & Fasteners <sup>1</sup>	3
IMM 1151	Industrial Indoctrination & Safety	1
IMM 1156	Technical Drawing & Schematics	4
IMM 1160	Precision Measuring Equipment	2
IMM 1177	Millwright Machining I <sup>1</sup>	3
IMM 2411	Rigging and Hoist <sup>1</sup>	4
WLD 1100	Welding I <sup>1</sup>	2
ENG 1002	College Communications	3
	<b>Credits</b>	<b>22</b>
Semester 2		
IMM 1246	Bearing Seals & Lubrication <sup>1</sup>	5
IMM 1251	Power Transmission Systems <sup>1</sup>	5
IMM 1265	Electric & Electronic Controls I <sup>1</sup>	2
IMM 1275	Millwright Machining II <sup>1</sup>	2
IMM 2580	Technical Drawings & Schematics II	2
WLD 1200	Welding II <sup>1</sup>	2

One General Education course. <sup>2</sup>		3
	<b>Credits</b>	<b>21</b>
Semester 3		
ENG 1780	Applied Communication II	2
IMM 1255	Material Handling System <sup>1</sup>	4
IMM 2440	Machine Installation <sup>1</sup>	4
IMM 2450	Fluid Power I <sup>1</sup>	2
IMM 2460	Electrical & Electronic Controls II <sup>1</sup>	2
IMM 2475	Millwright Machining III <sup>1</sup>	2
WLD 2400	Welding III <sup>1</sup>	2
One General Education course. <sup>2</sup>		3
	<b>Credits</b>	<b>21</b>
Semester 4		
CAD 1100	Computer-Aided Drafting I	2
IMM 2446	Pumps, Valves & Piping <sup>1</sup>	5
IMM 2537	Proact. Prevent. & Predictive Maint <sup>1</sup>	2
IMM 2550	Set-up and Use Machine Tools IV <sup>1</sup>	2
IMM 2556	Fluid Power II <sup>1</sup>	3
IMM 2570	Industrial Automated Control <sup>1</sup>	2
IMM 2575	Prime Movers and Machinery	2
WLD 2500	Welding & Fabrication <sup>1</sup>	2
One General Education course. <sup>2</sup>		3
	<b>Credits</b>	<b>23</b>
	<b>Total Credits</b>	<b>87</b>

<sup>1</sup> Course with lab component

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

## 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 11 mathematics (C), (U), or (M)

## Program delivery

### 2024-2025

#### Fall term start

SEMESTER 1: Fall 2024  
SEMESTER 2: Winter 2025  
SEMESTER 3: Fall 2025  
SEMESTER 4: Winter 2026

#### Winter term start

SEMESTER 1: Winter 2025  
SEMESTER 2: Spring 2025  
SEMESTER 3: Fall 2025  
SEMESTER 4: Winter 2026

## Specific program pathways

### College or university degree opportunities

If you are a graduate of this program, you may continue your studies at a college or university and you may receive credit(s) for your prior college

education. Refer to Cambrian's college and university agreement (<https://cambrian.s123.ca/supports-services/articulation-agreements/>) details for further information.

## **Employment opportunities**

Graduates are prepared for employment opportunities in:

- Hydro/nuclear installations
- Mining operations
- Forestry operations
- Manufacturing industry
- Steel industry
- Printing industry
- Pharmaceutical industry

## **Contacts**

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### **INTERNATIONAL ADMISSIONS**

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