

MINING ENGINEERING TECHNOLOGY (MNTY)

Ontario College Advanced Diploma | 6 semesters | Barrydowne

Prepare for a career in the dynamic mining industry in one of the nickel mining capitals of the world – Sudbury, Ontario.

Our nationally-accredited program is the only one of its kind in Ontario and will provide you with the skills and hands-on experience to become part of underground or open pit mine engineering teams anywhere in the world that are responsible for a wide range of projects involving surveying, drafting, design, environmental studies, industrial geological and geophysical fieldwork, ventilation, ground control, and supervision.

Faculty members will guide your progress and understanding through examples gained from industry experience, field trips in the renowned Sudbury basin and surrounding area, and hands-on demonstrations. You will benefit from a variety of experiential learning opportunities, including activities at an active mine site to gain a broad understanding of the various aspects of mining engineering as well as communication and leadership skills.

In your third year, you will further develop practical skills in surveying and GIS, mine ventilation planning, mine design, and project management. This skill set is highly valued by employers across the mining industry and enhances your career opportunities within this exciting sector.

Program Highlights

- 3 years – 6 semesters
- Accredited by Technology Accreditation Canada
- The only Mining Engineering Technology program in Ontario
- Field trips to mine sites and/or mining suppliers (when available)
- Gain a solid foundation in technical reports, project planning and design, surveying, geology, AutoCAD, mine development, environmental management, and more

Fieldwork/Placement

There is a field camp for 10 days following the end of the second semester. Students complete applied projects related to study areas within the mining program.

An optional co-op placement may be available for up to 16 weeks between the fourth and fifth semesters.

4D Learning Opportunities

Mining Day Conference – Each year, Cambrian College, Laurentian University, and Collège Boréal students spend the day networking with industry guest speakers and hearing about the latest trends and issues in the mining industry.

Accreditation

Cambrian's Mining Engineering Technology program is accredited by Technology Accreditation Canada (TAC).

In addition, our graduates are recognized by The Ontario Association of Certified Engineering Technicians and Technologists (OACETT), which

will give you access to career development opportunities and a national network of engineering professionals.

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

2021-2022

No intakes are planned for this program for the 2021-22 Academic Year.

Program of Study for 2021-22 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 |
|--|-------------------------------------|---------|
| GEO 1100 | Geology I ¹ | 4 |
| ENG 1002 | College Communications | 3 |
| MNG 1100 | Introduction to Mining ¹ | 4 |
| MTH 1050 | Algebra I | 3 |
| SUR 1116 | Surveying I | 5 |
| One General Education course. ² | | 3 |
| Credits | | 22 |

| Semester 2 | | Credits |
|------------|---|---------|
| CAD 1001 | Engineering Graphics | 3 |
| ENG 1754 | Technical Communication | 3 |
| GEO 1200 | Geology II ¹ | 4 |
| MNG 1014 | Mineral Resources Field Camp ¹ | 1 |
| MNG 1200 | Mining Methods | 4 |
| MTH 1250 | Algebra II | 3 |
| SUR 1225 | Mine Surveying ¹ | 5 |
| Credits | | 23 |

| Semester 3 | | Credits |
|------------|---|---------|
| CHM 1206 | Chemistry for the Geosciences ¹ | 3 |
| GEO 2305 | Geological Field & Data Collection ¹ | 5 |
| MTH 2325 | Technical Math III | 3 |
| GEO 2308 | Digital Map Making | 3 |
| MNG 1019 | Maintenance Planning | 4 |
| MNG 2335 | Mine Layouts and Planning | 5 |

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|--|--|------------|
| One General Education course. ² | | 3 |
| | Credits | 26 |
| Semester 4 | | |
| GEO 2420 | Intro To Structural Geology ¹ | 4 |
| GEO 2434 | Mineral Resource Evaluation ¹ | 4 |
| MNG 1015 | Ground Control ¹ | 4 |
| MNG 2300 | Mine Blasting Techniques ¹ | 4 |
| MNG 2310 | Mine Ventilation | 4 |
| One General Education course. ² | | 3 |
| | Credits | 23 |
| Semester 5 | | |
| MNG 1001 | Geoscience Applications | 3 |
| MNG 1016 | Mine Ventilation Planning ¹ | 4 |
| MNG 1017 | Applied Geomechanics ¹ | 4 |
| MNG 3531 | Scheduling-Estimating/Mine Projects | 4 |
| MTH 2332 | Applied Calculus | 3 |
| SUR 3600 | Surveying III ¹ | 4 |
| TEC 3501 | Technical Report Research | 1 |
| | Credits | 23 |
| Semester 6 | | |
| GEO 1005 | Mineral Economics Mining | 3 |
| MNG 1020 | Mining Project Management | 3 |
| GIS 3600 | GIS Applications | 3 |
| MNG 1018 | Mine Problems & Equipment ¹ | 3 |
| MNG 3505 | Environmental Management for Mining ¹ | 3 |
| MNG 3525 | Mine Services ¹ | 4 |
| MNG 3545 | Applied Mine Design | 3 |
| TEC 3601 | Technical Report | 1 |
| | Credits | 23 |
| | Total Credits | 140 |

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

The cost of books and supplies for Year 1 is approximately \$1,500 including an estimated \$650 for mandatory Personal Protective Equipment. This is the best information available at the time of publishing to the website and is subject to change.

Graduate Options

Employment Opportunities

Graduates may find employment in the operations of all sizes of underground or open pit mines and may be employed in the mine engineering office or in mine production as a supervisor.

Some graduates may work in more specialized areas such as:

- Rock mechanics
- Mine ventilation
- Project Management
- Mine safety
- Technical sales
- Mine supervision
- Mine administration/contracts

Graduates may elect to work overseas. A career in mining may offer travel opportunities, varied living environments, and experience with other cultures and people.

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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