

MINING ENGINEERING TECHNICIAN (MNTN)

Live and learn in one of the world's mining centres

Located in the heart of the mining industry in Sudbury, Ontario, our industry-experienced faculty prepares you to become an active member of mining engineering teams responsible for a wide range of projects in this dynamic and ever-changing industry. You'll explore surveying, drafting, design, mine safety, geological and geotechnical fieldwork, ventilation, ground control, mine planning, and more.

The program includes experiential learning activities at the end of first year where you will gain a broader understanding of the various aspects of mining engineering as well as communication and leadership skills. Upon graduation, you may choose to continue your studies in the Mining Engineering Technology (MNTY) (<https://cambriancollege.ca/programs/mining-engineering-technology/>) advanced diploma program.

Program highlights

- Gain a solid foundation in surveying, geology, AutoCAD, mine development, mine ventilation, and more
- 10-day field school at the end of the second semester
- Field trips to mine sites and/or mining suppliers when available
- Networking opportunities including the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Student Night event
- Graduates can seek membership with the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) to become certified as a C.Tech. (Certified Technician)

Program of study for 2025-26 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
CHM 1206	Chemistry for the Geosciences	3
ENG 1002	College Communications	3
GEO 1100	Geology I ¹	4
MTH 1050	Algebra I	3
MNG 1111	Introduction to Mining	4
MNG 1130	Surveying I - Mining	4
One General Education course. ²		3
Credits		24
Semester 2		
ENG 1754	Technical Communication	3
GEO 1225	Geology II	4
MTH 1250	Algebra II	3
MNG 1200	Mining Methods ¹	4
MNG 1202	Mine Engineering Graphics	3
MNG 1230	Surveying II - Theory	3
MNG 1231	Surveying II - Lab	3
MNG 1114	Mineral Resources Field Camp	2
Credits		25

Semester 3

GEO 2315	Geological Fieldwork	4
ISP 3026	Spreadsheets for Business	3
MTH 2325	Technical Math III	3
MNG 2301	Mining Health and Safety ¹	3
MNG 2340	Technical Computer Applications ¹	3
MNG 2341	Mine Layouts and Planning ¹	4
One General Education course. ²		3
Credits		23

Semester 4

GEO 2445	Intro To Structural Geology	3
MNG 2306	Mine Blasting Techniques	3
MNG 2440	Mine Ventilation	4
MNG 2450	Ground Control	3
MNG 2455	Mineral Resources Economics	3
MNG 2460	Applied Mine Survey and GIS	3
One General Education course. ²		3
Credits		22
Total Credits		94

¹ Course with Lab Component

² 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 12 mathematics (C) or (U) (MCT4C is highly recommended)

Additional admission requirements

Recommendations

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

Program delivery

2025-2026

Fall term start

SEMESTER 1: Fall 2025

SEMESTER 2: Winter 2026

SEMESTER 3: Fall 2026

SEMESTER 4: Winter 2027

Specific program pathway

Graduates of Cambrian's MNTN program may apply to enter directly into semester five of the Mining Engineering Technology (<https://cambriancollege.ca/programs/mining-engineering-technology/>) (MNTY) (<https://cambriancollege.ca/programs/mining-engineering-technology/>) program.

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://cambriancollege.ca/supports-services/articulation-agreements/universities-in-canada/>) details for further information.

Employment opportunities

Graduates may find employment in mineral resources exploration, in the operations of surface or underground mines, or in the mine services sector. Graduates may be employed in a mine engineering office or in mine production. Some graduates may find work in more specialized areas such as:

- Mine surveying
- Ground control
- Mine ventilation
- Mine safety
- Field exploration
- Mine geology
- Mine planning

Contacts

Katherine Bruce
Program Coordinator
705-566-8101, ext 7555
katherine.bruce@cambriancollege.ca