CHEMICAL ENGINEERING TECHNICIAN (CHLN)

Turn your passion for science and technology into a hands-on career

If you enjoy science and want to understand how everyday products are created, this program will show you how. You'll learn how to help develop and test chemical products like medicines, fuels, plastics, and more using the same tools and equipment found in real labs and chemical plants.

Step into a one-of-a-kind learning experience in Sudbury, Canada's mining capital and a world leader in resource innovation. You'll gain a strong foundation across the chemical industry and receive specialized, hands-on training in mineral processing and wastewater treatment.

You won't just study chemistry, you'll live it, work with cutting-edge equipment, and gain real-world skills that set you apart. After graduation, you'll be ready for exciting opportunities around the world. Chemical technicians are needed in labs, manufacturing plants, research centres, and field operations to help solve real-world problems in a variety of industries and improve everyday life.

Program highlights

- The only program in Ontario that offers hands-on training in mineral processing, pyrometallurgy, and water/wastewater treatment – skills that are in high demand in the environmental and mining industries
- Quality control practices are built into every part of the program to prepare you with the practical knowledge and attention to detail that today's labs and industries expect
- Graduates can continue into semester five of Cambrian's Chemical Engineering Technology – Lab and Process Control (https://cambriancollege.ca/programs/chemical-engineering-technology/#career-outcomes) program and earn an advanced diploma in just one more year

Program of study for 2027-28 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 1162	Chemistry I	3
CHM 1163	Chemistry I Lab [1]	3
CHM 1160	Occupational Health and Safety	3
QUA 1002	Quality Assurance and Quality Control	3
MTH 1050	Algebra I	3
CHM 1161	Introduction to Sampling Techniques	3
ENG 1002	College Communications	3
	Credits	**21**
Semester 2		
CHM 1280	Physical Chemistry	3
CHM 1281	Physical Chemistry Lab	3
CHM 1282	Chemistry II	3
CHM 1283	Chemistry II Lab [1]	3
ENG 1754	Technical Communication	3
MTH 1250	Algebra II	3
CHM 1284	QA QC Data Analysis	3
One General Education Course. [2]		3
	Credits	**24**
Semester 3		
WTR 2300	Water Treatment [1]	3
CHM 1300	Analytical Chemistry I	3
CHM 1301	Analytical Chemistry I Lab	3
CHM 1302	Instrumental Analysis I	3
CHM 1303	Instrumental Analysis I Lab	3
CHM 1109	Mineral Processing [1]	4
One General Education Course. [2]		3
	Credits	**22**
Semester 4		
CHM 1420	Organic Chemistry	3
CHM 1421	Organic Chemistry Lab [1]	3
CHM 1422	Analytical Chemistry II	3
CHM 1423	Analytical Chemistry II Lab [1]	3
CHM 1424	Instrumental Analysis II	3
CHM 1425	Instrumental Analysis II Lab [1]	3
CHM 1426	Pyrochemistry	4
One General Education Course. [2]		3
	Credits	**25**
	Total Credits	**92**

[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)
- Any grade 11 chemistry (U) or grade 12 chemistry (C) or (U)

Additional admission requirements

Recommendations:

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

Program delivery

2027-2028
Fall term start

SEMESTER 1: Fall 2027
SEMESTER 2: Winter 2028
SEMESTER 3: Fall 2028
SEMESTER 4: Winter 2029

Specific program pathways

Furthering your studies

There are opportunities for graduates to pursue further educational or professional qualifications and complete their degrees. They may also complete an additional year of study to achieve the Ontario College Advanced Diploma in Chemical Engineering Technology. Cambrian's CHLN program graduates may apply to enter directly into semester 5 of the Chemical Engineering Technology - Lab and Process Control (CHLP) program. (https://cambriancollege.ca/programs/chemical-engineering-technology/) This is a competitive process.

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

Chemical engineering technicians are problem-solvers and hands-on helpers in science and industry. You may work in labs and factories, helping scientists and engineers test and improve chemical products and processes. You might mix chemicals, run experiments, use lab tools, or check that products meet safety and quality standards.

This career opens doors to many exciting industries, including:

- Mining
- Pharmaceuticals
- Environmental science
- Nuclear energy
- Food and beverage
- Forensics
- Manufacturing
- Oil and gas
- Pulp and paper
- Plastics and polymers

Contacts

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INTERNATIONAL ADMISSIONS

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