

CHEMICAL ENGINEERING TECHNICIAN (CHLN)

Combine your interest in science and technology with the art of researching, developing, producing, and testing chemical products and processes

Train for a compelling career as a chemical technician, assisting chemists and chemical engineers at manufacturing facilities and labs in developing and testing chemical products for impurities, environmental impact, quality assurance, and regulatory adherence.

From general and organic chemistry to lab equipment use, you'll gain the hands-on experience needed to conduct experiments and maintain quality standards in a broad range of industries. Our campus in Sudbury, Ontario, provides a rich opportunity to learn in the mining capital of Canada. We're the only lab and process control program in the province that includes a focus on mineral processing and wastewater.

Program highlights

- Industry-standard practices gained through group work and independent studies
- Unique program in Ontario that focuses on mineral processing, pyrometallurgy, and water/wastewater
- Quality control practices embedded throughout the program
- Option for grads to enter directly into semester 5 of Cambrian's Chemical Engineering Technology – Lab and Process Control program and earn an advanced diploma in just 1 year

Program of study for 2024-25 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		Credits
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)
- Computer competency in relevant software

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

Furthering your studies

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 from 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/>) details for further information.

Employment opportunities

Graduates are prepared for employment opportunities with research and development and quality control laboratories, consulting engineering companies, in chemical, petrochemical, pharmaceutical, and a variety of other manufacturing and processing industries, health, educational, and government establishments as:

- Laboratory Technician
- Process Technology Technicians
- Water and Wastewater Analyst/Operator
- Quality Control Technician

Contacts

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INTERNATIONAL ADMISSIONS

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