

POWER ENGINEERING TECHNIQUES (PETQ)

It's safety first at Cambrian's on-campus power plant

Cambrian's award-winning combination of an on-campus power plant combined with a proven curriculum, accredited by the Technical Standards and Safety Authority (TSSA) lays the groundwork for a successful power plant career.

Enhance your career opportunities by preparing to successfully challenge roles in the operation and maintenance of the complex energy systems found in power plants and other industrial settings. Concepts introduced in class will be more fully experienced in the on-campus, fully functioning Power Engineering Training Facility. Here you will learn to operate and maintain working equipment safely and efficiently. You'll be prepared to challenge the TSSA exams required for Fourth Class operating engineer certification.

Program highlights

- Accredited by the Technical Standards and Safety Authority (TSSA)
- Hands-on learning in the college's TSSA-registered power plant
- Prepare to challenge the TSSA exams required to earn Fourth Class operating engineer certification
- Grads are eligible to continue their studies in Cambrian's Power Engineering Technician or Technology programs

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
PEG 1108	Power Plant Operation I	11
PEG 1225	Electricity & Control Systems I	3
PEG 1115	Applied Science	3
PEG 1007	Boilers & Auxiliaries I	4
PEG 1126	Safety & Administration I	2
ENG 1002	College Communications	3
Credits		26
Semester 2		
PEG 1220	Heating, Refrig./Gas Compression I	3
PEG 1231	Power Plant Operations II	11
PEG 1261	Building Systems	3
PEG 1008	Prime Movers I	4
PEG 1215	Applied Chemistry I	2
One General Education course. ²		3
Credits		26
Total Credits		52

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 11 (U) or 12 (U) or (C) chemistry or physics
- Grade 12 technological design or manufacturing technology course (C) or (U)

Program delivery

2025-2026

Fall term start

SEMESTER 1: Fall 2025

SEMESTER 2: Winter 2026

Specific program pathway

Students successfully completing the Power Engineering Techniques program may enter directly into the second year of the Power Engineering Technician (<https://cambriancollege.ca/programs/power-engineering-technician/>) or Technology (<https://cambriancollege.ca/programs/power-engineering-technology/>) program. This will be of great assistance to those students considering higher levels of education in the field of Power Engineering.

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 industrial and non-industrial settings operating, maintaining and managing complex energy systems. These types of systems may be located in:

- Manufacturing, extractive resource facilities and processing plants
- Power plants, alternative energy and cogeneration facilities
- Refrigeration, liquification and gas compression plants
- Petrochemical facilities, refineries and paper mills
- Institutional and commercial operations such as hospitals, correctional facilities, research facilities and universities
- District energy facilities and heating / cooling plants

In addition to these traditional employers, further employment opportunities may be found in other related industries such as pressure vessel inspection.

Contacts

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INTERNATIONAL ADMISSIONS

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