

Chemical Engineering Technology – Environmental (Advanced Diploma)



Meet our students

Our students receive an education that prepares them for specialized careers in environmental science, the environmental industry, the chemical industry, and the laboratory. During their studies, these students will work in some of the most sophisticated college environmental science facilities and chemical laboratories in Canada, gaining hands-on experience with chemistry and chemical engineering technology. Graduates from this program will have completed all the academic requirements for professional certification with OACETT.

Learn more about the classes these students take by visiting [the program webpage](#).

Core competencies and skills

- Problem-solving and performing tasks by applying principles of mathematics (algebra, trigonometry, basic calculus), physics, chemistry, and chemical engineering.
- Using quality management techniques including statistics and hypothesis testing.
- Selecting and using current technologies in chemical engineering tasks and projects.
- Researching and preparing a written formal report, and verbally presenting information on a specified topic.
- Applying health and safety strategies and environmental legislation/regulations.
- Implementing and evaluating quality control and quality assurance procedures to meet organizational standards and requirements.

Work term availability

- Winter (January – April)
- Summer (May – August)
- Fall (September – December)

Note: Effective Winter 2025, students will be available for 4, 8, or 12-month work terms.

Work term capabilities

- Preparing solutions and samples required for analysis and synthesis.
- Synthesizing, purifying, and characterizing organic and inorganic compounds.
- Wet analytic methods including volumetric, gravimetric, and qualitative analysis.
- Instrumental analytic methods using common types of instruments.
- Culturing, staining, and identifying micro-organisms.
- Separating and characterizing selected biochemical species.
- Applying material and energy balances to the analysis of industrial processes and selected unit operations.
- Analyzing solid waste issues and strategies.
- Conducting laboratory procedures for quantitative and qualitative tests.
- Preparing written reports based on experimental data and research.

Employer resources

- [Employer webpage](#)
- [Program information](#)
- [Program course schedule](#)

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