

# ENVIRONMENTAL TECHNICIAN

**Program:** ENTN

**Credential:** Ontario College Diploma, Co-op

**Delivery:** Full-time + Part-time

**Work Integrated Learning:** 1 Co-op Work Term

**Length:** 4 Semesters, plus 1 work term

**Duration:** 2 Years

**Effective:** Fall 2021

**Location:** Barrie

## Description

Environmental Technician students are trained as entry-level practitioners in the use of environmental sampling, monitoring and testing equipment and information technology tools and will be familiar with standard operating procedures for conducting environmental projects. Students are provided with applied knowledge of health, safety and environmental legislative requirements, environmental management systems, and the basic principles of ecosystem-based management for sustainability.

## Career Opportunities

Given the diversity in program skills and knowledge, there are a number of career options in the environmental field working for small and large corporations. Potential employers include environmental consulting firms; government agencies (municipal, provincial, federal); environmental services departments in a variety of organizations; and water, wastewater and waste management firms.

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. collect representative environmental samples and perform routine tests, using current and relevant tools;
2. use scientific concepts and models when contributing to the prevention, control and elimination of environmental hazards and remediation of contaminated sites;
3. assist with analysis of water/soil/air samples and with the resolution of environmental problems through the application of scientific and engineering principles;
4. follow standard procedures for conducting environmental sampling projects including the use of appropriate equipment and materials;
5. promote and maintain sustainable practices by applying the elements of ecosystem-based management;
6. carry out work responsibilities adhering to standards of professional conduct and principles of professional ethics;
7. complete assigned tasks in adherence to occupational health and safety standards and applicable legislative requirements;
8. follow established protocols in support of environmental management systems;
9. provide ongoing support for project management;
10. communicate technical information accurately and effectively in oral, written, visual and electronic forms;

11. develop and present strategies for ongoing personal and professional development to enhance performance as an environmental technician;
12. employ various information technology tools to assemble and use environmental data effectively;
13. consider basic entrepreneurial strategies to identify and respond to new opportunities.

## Practical Experience

All co-operative education programs at Georgian contain mandatory work term experiences aligned with program learning outcomes. Co-op work terms are designed to integrate academic learning with work experience, supporting the development of industry specific competencies and employability skills.

Georgian College holds membership with, and endeavours to follow, the co-operative education guidelines set out by the Co-operative Education and Work Integrated Learning Canada (CEWIL) and Education at Work Ontario (EWO) as supported by the Ministry of Colleges and Universities.

Co-op is facilitated as a supported, competitive job search process. Students are required to complete a Co-op and Career Preparation course scheduled prior to their first co-op work term. Students engage in an active co-op job search that includes applying to positions posted by Co-op Consultants, and personal networking. Co-op work terms are scheduled according to a formal sequence that alternates academic and co-op semesters as shown in the program progression below.

Programs may have additional requirements such as a valid driver's license, strong communication skills, industry specific certifications, and ability to travel. Under exceptional circumstances, a student may be unable to complete the program progression as shown below. Please refer to Georgian College Academic Regulation 3.2.7: *Changes in program, course, section or co-op*, for details.

International co-op work terms are supported and encouraged, when aligned with program requirements.

Further information on co-op services can be found at [www.GeorgianCollege.ca/co-op](http://www.georgiancollege.ca/co-op/) (<http://www.georgiancollege.ca/co-op/>)

## External Recognition

This program is accredited by the Canadian Association for Co-operative Education.

## Program Progression

The following reflects the planned progression for full-time offerings of the program.

### Fall Intake

- **Sem 1:** Fall 2021
- **Sem 2:** Winter 2022
- **Work Term:** Summer 2022
- **Sem 3:** Fall 2022
- **Sem 4:** Winter 2023

## Articulation

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at <http://www.georgiancollege.ca/admissions/credit-transfer/>

## Admission Requirements

OSSD or equivalent with

- Grade 12 English (C or U)
- Grade 12 Mathematics (C or U)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: [www.georgiancollege.ca/admissions/academic-regulations/](http://www.georgiancollege.ca/admissions/academic-regulations/) (<http://www.georgiancollege.ca/admissions/academic-regulations/>)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit Transfer Centre website for details:

[www.georgiancollege.ca/admissions/credit-transfer/](http://www.georgiancollege.ca/admissions/credit-transfer/) (<http://www.georgiancollege.ca/admissions/credit-transfer/>)

## Additional Information

Full Ontario G driver's license is strongly recommended in order to support a wider job search and facilitate more co-op employment opportunities.

Laptop is strongly recommended (Windows compatible recommended); Online access and/or student trial license opportunities available for most required software.

The Ministry of Environment, Conservation and Parks Operator in Training (OIT) certification should be completed within first 6 months of school of starting the program ([www.owwco.ca](http://www.owwco.ca) (<http://cat.georgiancollege.ca/programs/entn/www.owwco.ca>)). Details will be provided during CPHR0001 Co-op and Career Preparation course in Semester 1.

Appropriate clothing for fieldwork is required. This includes green patch safety boots/shoes.

## Graduation Requirements

22 Program Courses  
2 Communications Courses  
3 General Education Courses  
1 Co-op Work Term

## Graduation Eligibility

To graduate from this program, the passing weighted average for promotion through each semester, from year to year, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter

grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

## Program Tracking

The following reflects the planned course sequence for full-time offerings of the Fall intake of the program. Where more than one intake is offered contact the program co-ordinator for the program tracking.

Semester 1		Hours
Program Courses		
COMP 1059	Computer Technology for Environmental Applications	42
ENVR 1005	Workplace Safety and Employment Readiness	42
ENVR 1006	Earth Science	42
ENVR 1009	Foundations of Environmental Science	42
MATH 1035	Applied Environmental Mathematics	42
PHYS 1004	Physical Systems in the Environment	42
Communications Course		
Select 1 course from the communications list during registration.		42
Hours		294
Semester 2		
Program Courses		
BIOL 1008	Biological Systems	42
CHEM 1003	Introduction to Applied Chemistry	70
ENVR 1004	Geospatial Technology	56
ENVR 1007	Water Treatment	42
Communications Course		
Select 1 course from the communications list during registration.		42
General Education Course		
Select 1 course from the general education list during registration.		42
Hours		294
Semester 3		
Program Courses		
CHEM 2002	Applied Organic Chemistry	42
ENVR 2012	Ecosystems and Environmental Sampling	42
ENVR 2013	Limnology and Watershed Management	42
ENVR 2014	Environmental Management Systems and Audits	28
ENVR 2017	Soil Properties	42
SURV 2002	Environmental Surveying	42
General Education Course		
Select 1 course from the general education list during registration.		42
Hours		280
Semester 4		
Program Courses		
ENVR 2004	Waste Management Strategies	42
ENVR 2018	Environmental Assessment and Contaminants in the Environment	56
ENVR 2019	Environmental CAD	42
ENVR 2020	Wastewater Treatment	42
LAWS 2010	Environmental Law and Policy	42
STAT 2006	Applied Statistics for Environmental Applications	42
General Education Course		
Select 1 course from the general education list during registration.		42
Hours		308
Total Hours		1176
Co-op Work Term		
Hours		
COOP 1023	Environmental Work Term 1 (occurs after Semester 2)	560
Hours		560
Total Hours		560

## Graduation Window

Students unable to adhere to the program duration of two years (as stated above) may take a maximum of four years to complete their credential. After this time, students must be re-admitted into the program, and follow the curriculum in place at the time of re-admission.

**Disclaimer:** *The information in this document is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs.*

*Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.*