

# DIPLOMA OF TECHNOLOGY IN ENVIRONMENTAL PROTECTION

## At a Glance

### Faculty

[www.kpu.ca/science](http://www.kpu.ca/science) (<http://www.kpu.ca/science/>)

### Area of Study:

[www.kpu.ca/science/environment](https://www.kpu.ca/science/environment/) (<https://www.kpu.ca/science/environment/>)

### Academic Level:

Undergraduate

### Credential Granted:

Diploma

### Start Date:

Fall (September)

### Intake Type:

- Limited

### Minimum Credits Required:

92

### Curriculum Effective Date:

01-Sep-2016

## Description

Environmental protection technologists provide an invaluable service to society by helping protect and sustain the long-term health of our ecosystems.

Environmental consultants, industry and government seek out graduates from our Environmental Protection Technology program. They do this because our graduates have developed the skills needed to offer professional advice on a wide range of subjects, including: environmental impact assessment; hazardous and non-hazardous waste management; waste reduction and reuse strategies; air, soil and water pollution prevention and monitoring; compliance auditing; and contaminated site investigation and remediation. This skill set is based on an integrated, hands-on training program that gives graduates a good working knowledge of physical and life sciences, including general biology, ecology, toxicology, chemistry, physics and statistics. Specific topics covered by the program include:

- Air, water and soil field sampling
- Solid, liquid and air treatment methods
- Waste minimization
- Hazardous goods and waste handling methods
- WHMIS implementation and compliance evaluation
- Emergency planning and spill response methods
- Recycling and waste minimization program design
- Environmental issues analysis

- Environmental law and ethics
- Written and oral presentation skills
- Computer software competency

Although graduates typically work within a team of professionals, they must also be able to work independently and take initiative as required; the program helps promote these attributes. Successful completion of the two-year program prepares graduates for employment at the technology level within industry or government often with excellent potential for upward mobility as job experience grows.

Students may complete the program over the course of three years. This is recommended for students who intend to work part-time while enrolled in the program or for those who prefer a lighter academic load. Please contact the Program Chair for details.

### Co-operative Education

This program operates with two four-month Co-op work terms. KPU has been successful in arranging unique and challenging placements with government agencies such as Environment Canada and the BC Ministry of the Environment, with environmental consultants, and with other industries. Most importantly, these Co-op placements facilitate entry into successful careers by the Environmental Protection Technology graduates.

## Who Studies Environmental Protection Technology?

Environmental Protection Technology students vary in age and background. Some students come to us directly from high school, while others may be in their forties, looking for a change of career. There is usually a balance of genders, and about a third of our students come with some previous post-secondary credits. Typically our students seek a practical education that leads to varied careers that include opportunities for outdoor field work – and all are keen to make a contribution towards protecting our environment.

## Career Opportunities

An advisory committee works closely with the program to maintain and update the curriculum and ensure that graduates are well prepared for the job market. This committee consists of potential employers from the public and private sectors, as well as several graduates of the program who are well established in the field.

Graduates are employed with environmental consulting firms; federal, provincial or municipal departments; as environmental staff in large industries; or are self-employed.

Program graduates have experienced a high rate of employment in the environmental field. The Co-operative Education component of the program has proved to be extremely valuable, with several of the graduates obtaining positions with their Co-op employers. Examples of the type of work performed by Co-op students and graduates include: air, water, and soil sampling; waste-water systems investigations; contaminated sites assessments; contingency planning and spills response; waste permitting and compliance investigations; laboratory analysis; habitat evaluation; environmental auditing; environmental policy and legislation; recycling, composting and solid waste management; and public education.

## Requirements

### Admission Requirements

In addition to the Faculty's Admission Requirements, which consist of KPU's undergraduate English Proficiency Requirement (<https://calendar.kpu.ca/admissions/english-proficiency-requirements/>), the following program admission requirements apply:

- Level E1 as defined in the Math Alternatives Table (<https://calendar.kpu.ca/course-information/mathematics-alternatives-table/>).
- Minimum grade of C+ in Chemistry 11 (or equivalent)

Students lacking any of these requisites must obtain their equivalent before being admitted to the program.

Preference will be given to applicants with demonstrated work experience in a relevant field, post-secondary education in a related discipline and excellence in courses required for admission. Applicants will be asked to submit a resume to demonstrate relevant work experience.

### Curricular Requirements

The two-year program contains two four-month work semesters. For course sequencing and scheduling information, see [kpu.ca/science/environment](http://www.kpu.ca/science/environment) (<http://www.kpu.ca/science/environment/>)

Year 1		
Fall Term		Credits
BIOL 1110	Introductory Biology I	4
CBSY 1110	Business Problem Solving with Spreadsheets	3
CMNS 1140	Introduction Workplace Writing and Communications	3
COOP 1101	Introduction to Professional and Career Readiness	1
ENVI 1106	Environmental Chemistry I	4
ENVI 1121	Environmental Issues	3
MATH 1117	Environmental Mathematics <sup>1</sup>	3
<b>Credits</b>		<b>21</b>
Spring Term		
BIOL 1210	Introductory Biology II	4
ENVI 1206	Environmental Chemistry II	4
ENVI 1216	Introduction to Earth Sciences	4
ENVI 1226	Health & Safety	3
ENVI 2315	Water and Soil Sampling	4
<b>Credits</b>		<b>19</b>
Summer Term		
COOP 1150	Co-op Work Semester 1	9
<b>Credits</b>		<b>9</b>
Year 2		
Fall Term		
COOP 2150	Co-op Work Semester 2	9
ENVI 2901	Environmental Research Seminar	1
<b>Credits</b>		<b>10</b>
Spring Term		
ENVI 2305	Environmental Toxicology	3
ENVI 2310	Solid Waste Management	3
ENVI 2405	Environmental Legislation	3
ENVI 2410	Water Resources Protection	3
MATH 1115	Statistics I	3
PHYS 1400	Energy, Environment, Physics	3
PHYS 1401	Environmental Physics Lab	1
<b>Credits</b>		<b>19</b>

Summer Term		
BIOL 2322	Ecology	4
ENVI 2415	Air Quality Monitoring	4
ENVI 2420	Contaminated Sites Management	4
ENVI 2902	Environmental Research Project	2
<b>Credits</b>		<b>14</b>
<b>Total Credits</b>		<b>92</b>

<sup>1</sup> Students who have already completed Principles of Math 12 or Pre-calculus 12 (or equivalent) with C+ or better do not need to take MATH 1117.

While successful completion of the two Co-op work semesters is a requirement to graduate, it is sometimes possible to graduate without one or both Co-op work semesters. This would be warranted by exceptional circumstances, and requires the documented recommendation of the Program Chair in consultation with the Co-op Office, along with approval of the Dean and the University Registrar. Note: COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.

### Credential Awarded

Upon successful completion of this program, students are eligible to receive a **Diploma of Technology in Environmental Protection, Co-operative Education Option**.

Upon successful completion of this program without co-operative education, students are eligible to receive a **Diploma of Technology in Environmental Protection**.