

Environmental Technician

COOPERATIVE EDUCATION | TWO-YEAR DIPLOMA PROGRAM

Co-op Format:

Sept-Dec	Jan-Apr	May-Aug	Sept-Dec	Jan-Apr	May-Aug	Sept-Dec	Jan-Apr
Semester 1	Semester 2	Vacation	Semester 3	Work Term 1	Work Term 2	Work Term 3	Semester 4

Program of Studies:

SEMESTER 1

Introduction to Career Education
 Chemistry
 Ecology
 Health and Safety In Our Environment
 Communication
 Mathematics 1
 Physical Measurements and Data Analysis Lab

SEMESTER 3

Water Treatment Technology
 Wastewater Treatment Technology
 Hazardous and Solid Waste Management
 Environmental Informatics
 General Education (Elective)

SEMESTER 2

Lab Computer Applications
 Mathematics
 Analytical Chemistry 1
 Environmental Regulation
 Fundamentals of Physics
 Environmental Resource Management

SEMESTER 4

Air Monitoring and Pollution Control
 Industrial Wastewater Treatment
 Environmental Projects and ISO14000
 Sampling and Analysis
 General Education 2 Option



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Work Term Capabilities:

(which do not reflect individual experiences and exposures)

Classroom instruction, combined with hands-on laboratory experience, have provided the student with sufficient knowledge to perform tasks in the following areas:

- Basic laboratory skills in balance use, solution preparation
- Gravimetric analysis
- Titrimetric analysis such as argentometric, acid/base, redox titrations
- Use and maintenance of volumetric equipment
- UV/Vis spectrophotometric analysis
- Basic organic synthesis
- Small scale distillation, extraction, filtration
- Use of thermocouples, refractive index determination, melting and boiling point determination
- Solid waste analysis
- Recycling initiatives
- Environmental compliance and risk assessment analysis
- Wastewater analysis
- Analysis surrounding occupational hygiene and safety
- Microsoft Office software applications
- Introductory skills in interfacing lab equipment
- Introductory programming in VBA and Microsoft Excel including Macros
- Drinking water analysis
- Drinking water operations with MOE entry-level Drinking Water course completed
- GPS and GIS

Program Objectives:

The objective of the Environmental Science Technician program is to train students in the basic theory, skills and techniques of environmental technology. Emphasis is placed on water and wastewater treatment and plant operations, air pollution monitoring and control, environmental regulations and audits, ISO14000 solid and hazardous waste management, sampling and analysis, and occupational hygiene and safety.

The Ontario Association of Certified Engineering Technicians (OACETT) conditionally recognizes this program as meeting all the academic requirements for certification in the Certified Technician (Ctech) category.

Career Opportunities:

The environmental science technician is the "hands-on" member of the environmental, applied chemistry or occupational hygiene and safety team. They carry out tests and perform a wide range of laboratory functions, operate chemical process and environmental control equipment and conduct field studies.

Salary Range:

	<u>Work Term 1</u>	<u>Work Term 2</u>	<u>Work Term 3</u>
Range	\$11.50-18.03	\$12.00-18.03	\$12.00-17.00
Average	\$14.41	\$14.58	\$13.87