



**School of Environmental &
Natural Resource Sciences**
Frost Campus | Fleming College

ENVIRONMENTAL TECHNICIAN

Co-op Student Manual

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1.0 Introduction

The Environmental Technician Co-op program at Fleming College is intended to give students experience with real world organizations engaged in environmental monitoring and natural environment restoration/improvement activity. It provides a practical, hands-on opportunity to apply knowledge and skills obtained in the program. The Environmental Technician Co-op has been sequenced within the program course of study to occur after successful completion of all program courses in semester one and two.

The co-op work term is at least 480 hours (approximately 12 weeks) and takes place from early May until the end of August. The location of the co-op is up to the student, provided it meets the criteria outlined, and is reviewed by the Program Coordinator or the Co-operative Education & Placement Officer.

The co-op course tuition fee is approximately \$558.00. Students receive a Fee Notification letter from Admissions. Co-op fees cover administration, tracking and monitoring progress of students, site visits and relationship development with industry partners. All additional expenses incurred during the work term are the student's responsibility (i.e. lodging, transportation, food, clothing, criminal records check, etc.)

Co-op wages may be negotiable and are established between the student and the employer. The employer must be legitimately engaged in environmental technician activity. Duties vary significantly from job to job, but the following list includes typical job duties one might encounter as an environmental technician/technologist:

- Gather air, water, and soil samples to determine contamination level and assess environmental conditions
- Perform chemical, physical, and biological tests on air, water, and soil samples and document results
- Participate in and lead field investigations and inspections
- Trace chemical, physical, and biological pathways of environmental pollutants
- Review and process applications for environmental permits or certification, for example waste disposal sites or water and wastewater treatment plants
- Relate economic, health, political, and social issues to the management of environmental systems in both industrial and municipal applications
- Design methodologies for environmental sampling and analysis
- Implement quality control and quality assurance protocols for testing materials for conformity and compliance
- Measure field characteristics, properties, and composition of soils, river channels, and biological systems
- Prepare reports of findings for clients and supervisors.

Work environment

Environmental technicians/technologists work in a variety of locations, including: **In the lab:**

- Testing samples

- Performing maintenance and repairing equipment

In the office:

- Doing paperwork and analyzing data for reporting
- Consulting operating manuals and researching new technology
- Communicating on the phone and in meetings with clients, government departments, and the public
- Researching applicable regulations and compliance requirements

In the field:

- Collecting air, water, and soil samples
- Carrying out field analyses to determine environmental conditions
- Observing and inspecting sites
- Performing maintenance and repairing equipment
- Auditing and calibrating instrumentation

It is strongly recommended to get started on finding and securing a co-op work term early, in order to get a suitable location. Any questions on the work description should be discussed with the Program Coordinator or the Co-operative Education & Placement Officer, prior to accepting the co-op.

The Environmental Technician Co-op program is accredited by the Canadian Environmental Accreditation Commission (CEAC), a standing committee of Environmental Careers Organization (ECO) Canada. Students are eligible for Environmental Practitioner in Training (EPT) certification upon graduation and are able to upgrade to full Environmental Practitioner designation upon receipt of environmental employment skills.

Students are also eligible for registration as an associate member of the Ontario Association of certified Engineering Technicians and Technologists Certified Technician (C.Tech). Associate C.Tech individuals are able to upgrade to full C.Tech certification upon the completion of two years of work experience within their discipline and the successful completion of a Professional Practice Examination.

Students that have successfully reached the completion of 4th semester have the opportunity to earn several certifications including:

- Ministry of the Environment Entry Level Certificate for Drinking Water
- Ministry of the Environment Operator in Training Certificate in Water Treatment
- Ministry of the Environment Operator in Training Certificate in Water Distribution
- Ministry of the Environment Operator in Training Certificate in Wastewater Treatment
- Ministry of the Environment Operator in Training Certificate in Wastewater Distribution
- Ministry of the Environment Class 5 Well Technician Licence

2.0 Co-op Criteria

The co-op placement is a paid position; therefore it is the employer's responsibility to provide appropriate WSIB and liability insurance coverage for the duration of the student's placement.

All co-op placements must meet the following criteria:

- Must be reviewed by the Program Coordinator or the Co-operative Education & Placement Officer as a suitable learning environment
- The student must be engaged in relevant learning, instead of merely observing
- Student performance and attendance is monitored by the employer and reported at the end of the placement
- The student will be assigned a direct on-site supervisor that will provide professional mentorship and learning opportunities

3.0 Responsibilities

3.1 Student Responsibilities

It is the responsibility of the student to:

- Abide by Fleming College's policies, procedures, and code of conduct
- Know and comply with the employers policies and regulations (Confidentiality, Freedom of Information, Codes of Ethics or Conduct)
- Accrue the required number of co-op hours in the work place (travel time is not included)
- Provide the employer with accurate and appropriate information regarding qualifications and interests
- Actively engage in the activities of the co-op with a professional and positive attitude
- Attend employer orientations or sessions designed to familiarize the student with the organization
- Achieve a minimum final rating of a "pass" on each performance measure
- Attend all placement interviews and orientation seminars prior to the placement
- Accept that some employers will require students to work non-traditional hours (afternoons, evenings, and weekends)

3.2 Employer Responsibilities

It is the responsibility of the employer to:

- Be informed and adhere to Fleming College's co-op policies and procedures
- Comply with all Provincial and Federal Freedom of Information, Human Rights, and Employment Legislation
- Provide orientation, supervision and training for students
- Provide productive, relevant work experiences
- Maintain contact with the Co-operative Education & Placement Officer concerning any problems or changes
- Complete mid-term and final performance evaluations
- Provide an experienced member of the organization who can supervise the student, and provide them with mentorship
- Inform Fleming College of any concerns with the student including failure to meet their learning goals and learning outcomes

3.3 Supervisor Responsibilities

It is the responsibility of the supervisor to:

- Help transition the student from an education environment to a work environment
- Provide daily supervision, mentoring, and monitoring of student progress
- Facilitate student orientation to specific routines, policies, procedures, practices, guidelines and protocols
- Consider the health and safety of the student when planning and suggesting placement learning experiences
- Facilitate the student's learning through supervision, teaching and gradually increasing appropriate independence in the work setting
- Provide exposure to a variety of industry specific tasks
- Participate in the student's ongoing evaluation by:
 - Providing ongoing constructive feedback
 - Participating in the evaluation of the student by providing input and support documentation

3.4 College Responsibilities

It is the responsibility of Fleming College to:

- Inform students and employers of required policies and procedures
- Maintain and enhance relationships with new and existing employers
- Provide career training, personal and professional development seminars and resources to enhance students' on-going employability
- Provide administrative support for the recruitment process (i.e. assist employers and students with job postings, interview scheduling, interview facilities, etc.)
- Maintain contact (via site visits, email, or phone) with students and employers during the co-op
- Provide advice and support to students and employers if difficulties arise during the co-op
- Comply with all Provincial and Federal Freedom of Information, Human Rights, and Employment Legislation

4.0 Professionalism

Students enrolled in the co-op program are representing Fleming College, and are expected to demonstrate professionalism, communicate clearly and effectively, and develop harmonious working relationships. Students are expected to respect and appreciate diversity and human rights. Unprofessional conduct may adversely affect any future opportunities for other students at a particular organization.

A positive attitude will help maximize the learning opportunity and the overall co-op experience. Students are expected to arrive at their placement on time, be prepared, and ready to engage. Students must dress appropriately, including the necessary personal protective equipment, and come with the basic hand tools needed to do the job (unless provided by the employer).

5.0 Evaluation

There are three main components to the evaluation process:

- a) Employer Evaluation
- b) Assessment of the learning outcomes and competencies
- c) Completion of the required total hours. Provide a copy of the Record of Employment, or the Attendance Journal, signed by the employer

6.0 Health & Safety

Safety in the workplace is governed by the Occupational Health & Safety Act. Details concerning the regulations are available at College libraries, and from members of the Joint Occupational Health & Safety Committee members at the College or at the placement workplace.

6.1 Employer Responsibilities

- To have a Joint Occupational Health & Safety Committee with workers and management represented when 20 or more people are employed. Sec 9-2-a
- To provide information, instruction and supervision to protect the health of the worker. Sec 25-2-a
- To ensure that equipment, materials and protective devices as prescribed are provided. Sec 25-1-a
- To take every precaution reasonable in the circumstances for the protection of the worker. Sec 25-2-h
- To carry out such training programs for workers, supervisors, and committee members as may be prescribed. Sec 26-1-1

6.2 Worker Responsibilities

- To work in compliance with the ACT and its regulations. Sec 28-1-a
- To use or wear the equipment, protective devices, or clothing that the worker's employer requires to be used or worn. Sec 28-1-b
- To report to the employer or supervisor the absence of or defect in any equipment or protective device of which the worker is aware and which may endanger himself or herself or another worker. Sec 28-1-c
- To report to the employer any contravention of the Act or the existence of any hazard of which he or she knows. Sec 28-1-d

6.3 Worker Rights

- To refuse unsafe work. Sec 4-3-5
- To know of exposure to hazardous products or conditions. Sec 43-5¹

Note: The College's policies and procedures with respect to co-op placement are consistent with standards and legislation around Human Rights, Employment Equity, Harassment & Discrimination and Freedom of Information. Students in co-op placement are covered by these policies.

7.0 Contact Information

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