

# Ecosystem Management Technician



<b>Program Locations:</b>	Lindsay
<b>Program Code:</b>	EMT
<b>Co-ordinator:</b>	Mike Fraser
<b>Credential:</b>	Ontario College Diploma
<b>Start Dates:</b>	September 04, 2012 - January 07, 2013
<b>Tuition Fees:</b>	\$1,830.95 per semester. Tuition and fees subject to change.

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**A team of students and faculty are now in Costa Rica on the annual Field Trip to Cano Palma Botanical Station. Check out [this link](#) for their blogs on this adventure! Be a part of the solution - as an Ecosystem Management Technician, you contribute to the health of ecosystems, minimizing the negative impact we have on the environment. Through careful consideration of the needs of society and the environment, you'll help governments, conservation groups, and wildlife organizations do environmentally sustainable planning for the future.**

## Program Highlights

**"The earth we abuse and the living things we kill, will, in the end, take their revenge; for in exploiting their presence we are diminishing our future." -- Marya Mannes, *More in Anger***

Fleming's Ecosystem Management Technician program highlights a holistic approach to the management of human activity within ecosystems. We will prepare you for an exciting career that can take you where YOU want to go, either in your home community, in a wilderness environment, or across the globe. You will study ecosystem composition, structure and function in wilderness, rural, and urban landscapes, and acquire a broad range of technical skills, as well as the flexibility to adapt to changing job requirements. Throughout this program, you will:

- learn the principles of experimental design and research, and how to apply them to a project of your own
- participate in the monitoring and assessment of aquatic and terrestrial habitats, conduct resource inventories and environmental sampling, and develop plans for the management of public and private landscapes
- conduct field research in partnership with the college's Centre for Alternative Wastewater Treatment (CAWT) and analyze data generated by this nationally-accredited lab
- learn to use Geographic Information Systems (GIS) technology to analyze ecosystems at a variety of scales.

## Why Choose Fleming

- Ecosystem Management is on the leading edge of resource conservation in the 21st century - the future is now.
- The School of Environmental and Natural Resource Sciences at the Frost Campus encourages small class sizes and provides state-of-the-art technology.
- Dedicated, award-winning faculty provide a challenging and dynamic learning environment in the heart of the Kawartha Lakes region.

- While you learn about ecosystem science and the current techniques of sustainable resources management, you will also develop essential skills in communications, human relations, facilitation, problem solving, dispute resolution, and cultural awareness.
- This combination of skills and knowledge is transferrable on a global scale.

## Work Experience

The Ecosystem Management Program provides the student with a 2 week (80 hour) mandatory field placement. This placement is designed to allow you to apply your skills, demonstrate your abilities and obtain valuable work experience that many employers are looking for.

The program has partnered with national conservation agencies to offer an international 2-week placement opportunity in Costa Rica, that includes working with nesting sea turtles and monitoring species biodiversity in coastal rainforest habitats. Students who participate in this experience are selected based on a rigorous screening process. Check out [this link](#) for more information, blogs and video on the field trip.

### Common First Semester

Students in our School's diploma programs take the same courses for first semester after choosing and being accepted into one of our programs. This common focus exposes you to a variety of career options – and other programs. You will have the freedom to explore and obtain a multidisciplinary perspective, while you acquire a base of knowledge and fundamental skills.

Although students are accepted into a specific program for their first semester, the common first semester allows you to change direction if another program or career area is more appealing. Once you have successfully completed the common first semester, you can enter the program of your choice in second semester, subject to enrolment capacity.

### Aboriginal Emphasis Initiative

Fleming College's Aboriginal Emphasis Initiative is an inclusive approach to providing more understanding of Aboriginal peoples, communities and nations. You will have an opportunity to take courses designed from an Aboriginal perspective with emphasis on Aboriginal peoples, history, spirituality and culture. See the Aboriginal Emphasis Initiative page for courses available in this program.

## Is this You?

To help you succeed in this program and career you need:

- the ability to ask questions, solve problems and create sustainable plans
- an interest in understanding how ecosystems and humanity interact
- analytical and creative thinking
- excellent oral and written communication skills
- the ability to work as part of a team
- good organizational ability
- cultural awareness/sensitivity
- excellent interpersonal skills
- volunteer or work experience in such areas as conservation, parks, greenspace projects, public education about the environment, or habitat restoration is an asset.



## Career Opportunities

As a Technician, you'll find work in careers such as:

- resource management technician
- urban forest management
- geomatics technician
- aquatic / terrestrial biologist
- environmental education
- land use planning
- restoration technician
- watershed technician
- environmental consultant, and others.

You'll work for conservation authorities, parks departments, private consulting firms, municipal/provincial/federal governments, non-governmental organizations, First Nations communities, or stewardship organizations. Positions can be found across Canada and around the world. Willingness to relocate for work, and taking the initiative to develop contacts in the field greatly enhances the opportunities available to you.

## Minimum Admission Requirements

OSSD with the majority of credits at the College (C) and Open (O) level, including:

- 2 College (C) English courses (Grade 11 or Grade 12)
- 2 College (C) Math courses (Grade 11 or Grade 12)

When (C) is the minimum course level for admission, (U) or (U/C) courses are also accepted.

## Mature Students

If you are 19 years of age or older before classes start, and you do not possess an OSSD, you can write the Canadian Adult Achievement Test to assess your eligibility for admission. Additional testing or academic upgrading may be necessary to meet specific course requirements for this program.

**\* Students starting in January are required to attend classes over the summer semester.**

## Related Programs

Graduates of the Ecosystem Management Technician program may want to consider continuing their education another year to attain the Technologist diploma. You might also want to consider taking one of the Geographic Information Systems (GIS) programs - Applications Specialist, or Cartographic Specialist to enhance your skill set and career opportunities. Alternatively, you can obtain a dual diploma by taking another of our School's Technician programs, and can usually complete the second diploma with just two more semesters of study.

## Additional Costs

Plan to spend about \$925 in the first year and \$525 in the second year for the cost of books, supplies and field camps.

## Transfer Agreements

We are committed to providing students and graduates with flexible options to get maximum recognition of their college studies. Through joint programs and transfer agreements with the following universities, you can apply the learning you acquire at Fleming College to earn a related degree in less time, and at less cost.

- Athabasca University
- Griffith University, Queensland, Australia
- Royal Roads University - Victoria, B.C.
- University of New Brunswick
- University of Ontario Institute of Technology

## Curriculum for Ecosystem Management Technician

### Semester 1

Code	Course Name	Hours
MATH 63	Applied Mathematics in Natural Resource Sciences	45
COMM 44	College Communications for Environmental Science	37
ENVR 20	Ecology and Environment	60
ECOS 13	Ecosystem Skills	60
GEOM 36	Geospatial Techniques	45
NATR 8	Environmental Leadership	45

### Semester 2

Code	Course Name	Hours
COMP 461	Data Management for Environmental and Natural Resource Sciences	45
ECOS 14	Ecology: Concepts and Linkages	45
FSTY 73	Forest Measurement	45
NATR 41	Soil Studies I	21
NATR 83	Soil Studies II (Ecosystem Management/Forestry)	21
COMM 34	Technical Reporting	45
FSTY 50	Trees and Shrubs Of Ontario	45
FIWI 41	Wildlife Observation Skills	45
GNED 49	Aboriginal History and Culture	45

## Semester 3

<b>Code</b>	<b>Course Name</b>	<b>Hours</b>
ECOS 3	Aquatic Ecosystems	60
GEOM 34	Introduction to Vector GIS	45
LAWS 56	Natural Resources and the Law	45
ECOS 10	Restoration Ecology	45
MATH 25	Statistics	45
ECOS 11	Terrestrial Ecosystems	45
GENED	General Education Elective	

## Semester 4

<b>Code</b>	<b>Course Name</b>	<b>Hours</b>
NATR 11	Career Advancement Techniques	45
GEOM 16	EM-Geomatics	45
ECOS 7	Ecosystem Monitoring and Assessment	45
FLPL 108	Field Placement EMT	80
ORGB 10	Human Relations	45
FIWI 23	Nuisance Species Management Techniques	45
FSTY 60	Tree Sciences and Practices	45

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