

Course Outline

Course Title:	Ecology and Environment		
Course Number:	ENVR20	Creation Date:	2015/6/26
Course Hours:	60 hours	Academic Year:	2015
Academic School:	School of Environmental & Natural Resource Sciences		
Prerequisites:	None.		
Corequisites:	None.		
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Chair/Approver:	Mary Ann Fader - MaryAnn.Fader@flemingcollege.ca		

Course Description

Learn how nature works by studying the key components of the ecosystems in the Kawartha Lakes Region. Through field and lab exploration of wild life, landforms, forests, lakes, rivers and wetlands, students will see the connections between themselves, the environment and ecosystems that surround them.

Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Apply basic knowledge of ecological principles, worldviews, and the nature of science in the development of a personal perspective on humans and the environment.
2. Identify landscape features and geological landforms characteristic of a given region at a basic level, under field conditions.
3. Use introductory knowledge of earth-forming processes and geology in the identification of physiographic regions and ecosystems including soil, water, and vegetation characteristics.
4. Apply basic knowledge of the hydrologic cycle and ecosystem processes in assessing the general impact of human activity within a given watershed.
5. Use introductory knowledge of abiotic, biotic and cultural characteristics to evaluate the ecological significance of a particular landscape.
6. Use standardized protocols such as the Ontario Wetland Evaluation System and the Ecological Land Classification system to determine key characteristics when describing a given environment.
7. Given continued human population growth, assess the possible impacts of this trend on ecosystem health and culture.
8. Use topographic map skills to draw and interpret contour lines and topographic profiles that represent landscape features and landforms.

Learning Resources

These resources are in addition to information within the course learning management system

Indicate Use (Required or Recommended)	Title:	ISBN or equivalent:

Accessing Information

The College considers the myCampus Student Portal (<https://mycampus.flemingcollege.ca/>) and student email as the primary channels of College level communications. Students are expected check these sources regularly.

Students must consult the Learning Management System (D2L) regularly throughout the semester for course specific information, grades, reminders, and course-specific rules or protocols.

College Policies and Other Information

This course contributes to Program Standards as defined by the [Ministry of Training, Colleges and Universities](#) (MTCU). Program standards apply to all similar programs of instruction offered by colleges across the province of Ontario.

Mutually, faculty and learners will support and adhere to college policies and related documents such as the Academic Regulations, Student Rights and Responsibilities, Academic Appeal and the Guidelines for Professional Practice.

If you have a documented disability (i.e., diagnosed by a health care professional such as a family doctor, psychologist, audiologist, psychiatrist) or a suspected (i.e., not diagnosed by a health care professional) disability, we encourage you to make an appointment with a counsellor to discuss accommodations for your learning.

Please consult the **myCampus Student Portal** (<https://mycampus.flemingcollege.ca/>) under the “**Resources**” tab to access more information about policies, procedures, and college supports.

Exemption Contact

Please contact your faculty member, the creator of this course outline, or the Office of the Registrar to query regarding a course exemption.

Prior Learning and Assessment and Recognition (PLAR)

Any student who wishes to have prior learning acquired through life and work experience assessed, so as to translate it into a college credit, may initiate the process by applying through the Office of the Registrar. For more information please click on the following link: <http://flemingcollege.ca/admissions/prior-learning-assessment-and-recognition>

Approval Date:**Faculty:**

Cyndy Broughton - cyndy.broughton@flemingcollege.ca

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Coordinator or Equivalent:

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Chair or Equivalent:

Terri Geerinck - terri.geerinck@flemingcollege.ca

Semester Plan

Learning Sequence

Week/Unit	Topics/Activities	Assessment	Assessment Value	Assessment Type (Presentation, Assignment, Test)	Course Learning Outcomes
Week 1	Lecture: Geological Structure of the Earth and Glaciation Lab: Geology and Stratigraphy GLH: Cancelled	Labs throughout the semester	10%	Assignments	2, 3
Week 2	Lecture: Physiography and Ecological Land Classification Lab: Landforms Field Trip GLH: Cancelled				3, 4
Week 3	Lecture: Nutrient Cycling and Hydrogeology Lab: Soil Identification and classification GLH: Soil Pit Analysis				1, 2, 4
Week 4	Lecture: Plant Science Lab: Introduction to Case Study and Environmental Sampling GLH: Sampling lab continued	Ecology Test I (Weeks 1-3)	10%	Test	5, 6
Week 5	Lecture: Water Analysis Lab: Succession and Herbaceous plants GLH: Succession lab continued				4, 6
Week 6	Lecture: Limnology and Water Resources Lab: Water Analysis GLH: Field Trip Information				1, 4, 6
Week 7	No lectures this week Lab: Cancelled for All Day field trip. GLH: Cancelled	Shelterbelt Field Notes Submitted	5%	Assignment	2, 3,
		All day field trip practical lab applications	12%	Assignment	
		Ecology Test II (Weeks 4-6)	10%	Test	

Week/Unit	Topics/Activities	Assessment	Assessment Value	Assessment Type (Presentation, Assignment, Test)	Course Learning Outcomes
Week 8:	Completion of Wetlands Internet assignment				
Week 9	Lecture: World Biomes and Terrestrial Ecozones in Canada Lab: Constructed Wetland/Stream Water Analysis	Wetlands Internet Assignment	4%	Assignment	3, 5, 6
	GLH: Centre for Alternative Wastewater Treatment Tour	LAB: Research Summary	5%	Assignment	
Week 10	Lecture: Species Interactions and Animal Science Lab: Wildlife Ecology Lab GLH: Goals Checklist +Soils/Rock Practice	GLH: Goals checklist	1%	Assignment	1, 6
Week 11	Lecture: Energy Transfer and Resources Lab: Topography I GLH: Skulls Practice				1, 8
Week 12	Lecture: Population Dynamics Lab: Topography II GLH: Peer Evaluations and Topography lab continued NOTE: Students require Topographic map Lindsay 31 D/7 this week	GLH: Peer evaluations	1%	Assignment	7, 8
Week 13	Lecture: Agriculture and Permaculture Lab: Mark recapture population analysis in fish hatchery GLH: Pelt Practice				1, 6, 7
Week 14	No Lectures Lab: Course Review GLH: Cancelled	Ecology Test III (Weeks 9-13)	12%	Test	1, 4,6
		Field Assignment report due in lab	15%	Assignment	
Week 15	No Lectures Lab: Practice Test (includes all labs including field trip) GLH: Practical Test Continued	Practical Test	15%	Test	2,3,5,6,7,8

Additional Learning Information

All students in a group are expected to participate in their shelterbelt case study report. Students may be removed from the group due to poor attendance in group meetings, lack of participation in field activities, or not following the group contract. A student's grade on the shelterbelt report may change based on peer feedback as well as performance during the week 15 exit interview if there is clear indication that a group member was not an active participant.

End of Course Outline

Copyright Information: To be Included

It is the responsibility of the student to retain this course outline for future reference. Course outlines may be required to support applications for advanced standing and credit transfer to other educational institutions, portfolio development, PLAR and accreditation with professional associations.