



Environmental and Resource Studies Program

**ERSC/NAST 215H
Environmental Assessment Techniques for Aboriginal Communities
2007**

Instructor:

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This field-based course will be offered at the James McLean Oliver Ecological Centre and will introduce students to the ecology of the different ecosystems that are found throughout the Kawarthas. Through field work, students will also be exposed to some of the current stressors that are impacting our natural ecosystems and learn some of the different monitoring tools currently being used to determine their impacts.

Student evaluation:

Seminar presentation and discussion	30%
Field quiz – spring flora	15%
Field quiz – tree/soils	15%
“Final”	15%
Participation	25%

Day	Time	Activity	Instructors
Sun, April 29	5:00pm-	Arrival at Oliver Ecological Centre Station, BBQ, logistic orientation, introductions, opening, campfire and story-telling.	ES, DH, DL, DW
Mon, April 30	9am-11:30	Lecture: Introduction to the Oliver property; Environmental and risk assessment	ES
	1 - 5pm	Field: Oliver property natural history tour	ES
	7:30 – 9 pm	Lecture: Environmental Science and communities	DL
Tues, May 1	9am – 11:30	Lecture: Air as a shared global resource – introduction to chemistry of the troposphere	ES
	1 - 5pm	Field: wet deposition monitoring: establish field sites	ES, DH
	7:30 -	Student presentation and discussion (x2)	

Wed, May 2	9 – 11:30 am	Lecture: Introduction to geology and soils	ES, DH
	1 – 5 pm	Field: Factors influencing soil development	
	7:30 -	Student presentation and discussion (x2)	
Thurs, May 3	9 am – 5:00	Field: Plant identification and forest management – Parker property	ES, DH
	7:30 -	Student presentations and discussion (x2)	
Fri, May 4	8:00 am – 5:00	Field trip: Assessing impacts of disturbance on natural communities – urbanization	ES, DH,
	5:30-	Clean-up and depart for weekend	
Mon, May 7	8:00 – 11:30	Field: Oshawa Second Marsh	KF
	1:00 – 5:00	Field: Ecology of peatlands in a changing climate – Coon Lake bog	ES, DH, DL
Tues, May 8	9:00 – 5:00	Field: Intro to aquatic ecology of the Kawartha's; collection of wet deposition samples	ES, DH
	7:30 -	Student presentation and discussion (x3)	
Wed, May 9	8:30	To Trent	DH
	9:00 – 11:00	Lecture: Microbiology and potable drinking water	
	11:00 – 3:00	Lab: Water quality/wet deposition analyses	
Thur, May 10	3:30 – 4:30	Lab: Data summary/conclusions	All
	7:30 -	Student presentations and discussion (x3)	
Friday, May 11	9:00 – 11:00	Final “exam”	ES
	11:00 -	Clean up and good byes	

DH – Dorothy Howard, DL – Dan Longboat, DW – Doug Williams, ES – Eric Sager

Seminar presentations:

We would like you to get started on the research for your individual presentation. You will be required to make a 20 minute presentation to the rest of the group (worth 30% of your final mark). There will be 10 minutes available to each speaker for questions/discussion. Please choose one of the topics listed below. Although many of these are quite "general", we expect that you will find a specific topic within each that you can discuss in some depth. We strongly suggest that you choose a topic ASAP and email me with your selection (esager@trentu.ca). Topics will be allocated on a first come, first served basis, one topic per student. In order that you receive the best mark possible for your talk please consider using at least 3-5 current primary literature sources. It is in your best interest to have the presentation ready upon arrival as time is limited for seminar preparation there after. If you need help with finding sources etc., or if you have any questions please feel free to email me (esager@trentu.ca) or stop by my office (SC 112).

Proposed Seminar topics

1. Sustainable agriculture
2. Fisheries management
3. Resource development: Forestry
4. Resource development: Mining
5. Restoration of degraded ecosystems
6. Restoration of Indigenous Communities
7. Reintroduction of native species
8. Climate change and boreal forests
9. Climate change and lakes
10. Climate change and species migrations
11. Climate change and northern Indigenous Communities
12. Drinking Water: A scarce resource?
13. Role of natural and artificial wetlands in wastewater treatment
14. Air quality and human health
15. Solid waste management in Indigenous Communities
16. Contaminants and health of Indigenous Communities
17. Climate change policy: mitigation vs. adaptation
18. Energy and sustainable communities
19. The ecological effects of stratospheric ozone decline
20. Integrating ecology with economics in sustainable communities
21. Biological effects of electromagnetic fields

In accordance with Trent's policy, students in all courses should be warned about plagiarism. **Plagiarism is an extremely serious academic offense and carries penalties varying from failure in assignment to suspension from the University. Definitions, procedures and penalties for dealing with plagiarism are set out in Trent University's *Academic Dishonesty Policy* which is printed in the 2006-2007 University calendar supplement.** Note that other forms of academic misconduct are also described in the university calendar and will be penalized appropriately