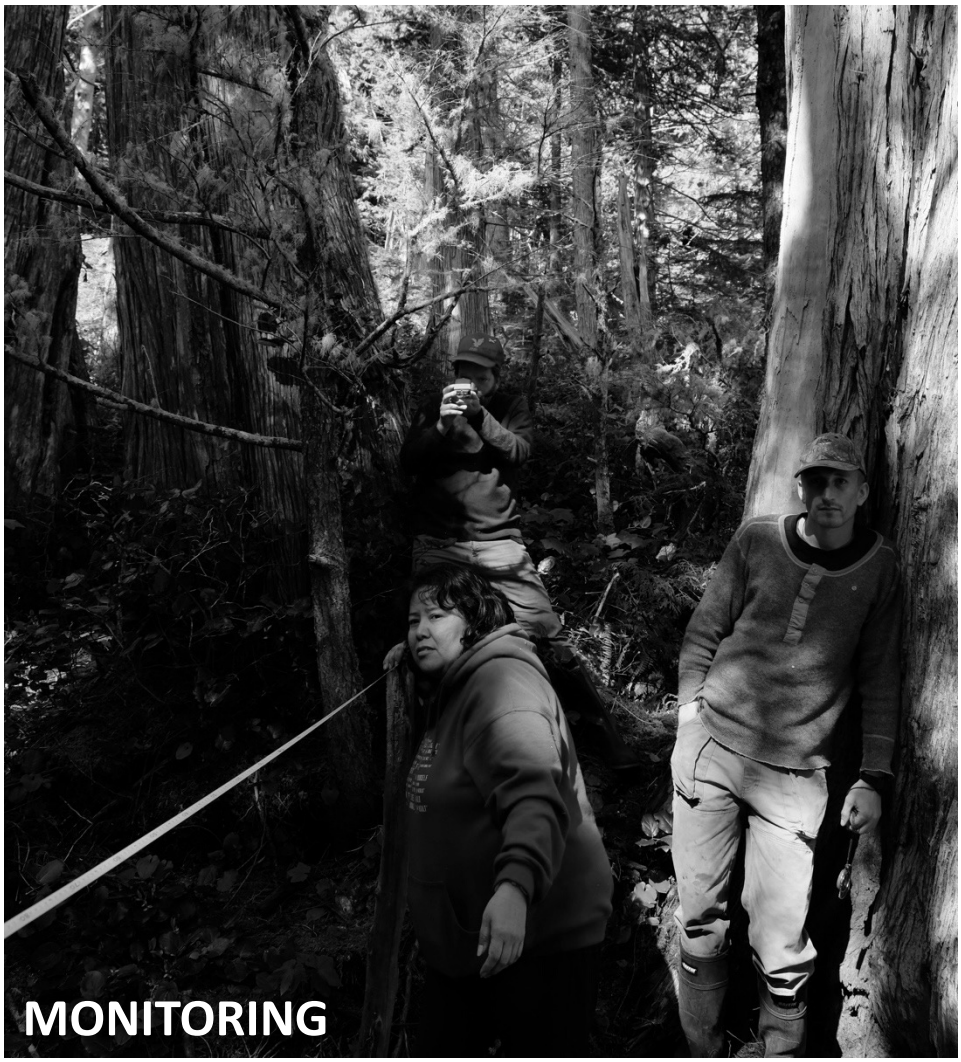
SCHOOL OF ENVIRONMENT, RESOURCES AND SUSTAINABILITY
University of Waterloo

NATURAL resources eCOLOGY

2020

On-line

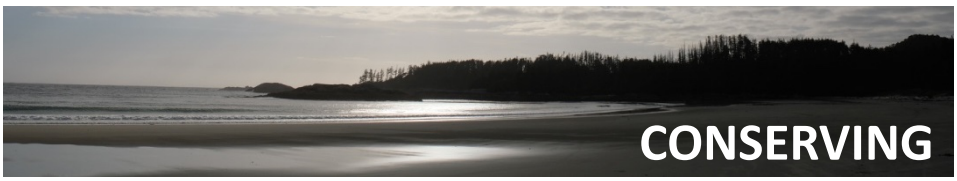
ERS 202



Course description

Building on the ecological foundation of ENVS 200, this course explores the ecology and context of Canada's main natural resources including forestry, fisheries and agriculture. This course will explore the monitoring, management and conservation of these natural resources and will discuss alternatives to status-quo approaches including organic agriculture and sustainable forestry. This course will be a combination of recorded lectures and informal synchronous discussions.

We are learning remotely but our feet and minds rest somewhere. I am on the territories of the Haunenosaunee, Ojibway/Chippewa, Anishinabek and Neutral peoples



Important info

Prof: Dr. Andrew Trant
Email: atrant@uwaterloo.ca
Weekly checkin: Thursdays 9:30-10:30am

TAs

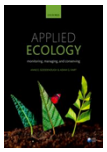
Natasha Serrao
nr2serra@uwaterloo.ca
Weekly checkin:
Wednesdays noon-1pm

Jason Phoenix
jiphoeni@uwaterloo.ca
Weekly checkin:
Thursdays 4-5pm

What's inside?

Requirements

No text for this class:
Life is too expensive as is BUT BUT BUT here is a good resource



Applied Ecology, Goodenough & Hart 2017. This book is well-priced and full of good context for this course.

How we will learn:

- E-Lectures
- Journal articles
- Discussions
- Podcasts
- Popular media

How to stay fresh

I want to keep this super current so every Friday, I will post (on LEARN) the readings for the following week. With this dynamic model, readings can better reflect our discussions and discoveries throughout the semester. For each reading, you should summarize the findings, identify the ecological issue, and understand how they vary across space and through time (when relevant).

Objectives

By the end of this course, you should be on a path to life-long learning as an **ecologically-literate citizen**. More specifically, you should be able to do the following:

identify and **explain**, with examples, the main principles of ecology as they related to natural resources;
demonstrate how these principles and concepts apply to real-world situations (in context of both lectures and labs);
analyze the elements of scientific inquiry as they apply to natural resource ecology; and
evaluate ecological arguments presented in the media and elsewhere (e.g., for application within your future career).

These course learning outcomes will not only prepare you to be an informed citizen and member of the community of life on earth, but also provide the basis for knowledge, humility, and wisdom in your dealings with ecological problems in your daily life and eventual career.

Assessment

lab 1: 15%

This lab will explore methods used resource monitoring by introducing you to statistics and the wonderful program named R.

Due on Oct 9th by midnight (through LEARN).

lab 2: 15%

This lab will explore ways in which we **manage** resources by getting you outside quantifying changes in biodiversity based on different management practices. It's going to be great.

Due on Nov 13th by midnight (through LEARN).

final exam: 30%

This exam will consist of a mix of short and long answer questions. You will need to apply readings, lecture and lab material. It will be tough but fair!

lab 3: 15%

This lab will explore ways in which we conserve natural resources by integrating knowledge and practice related to sustainability.

Due on Dec 4th before class (through LEARN).

iNaturalist: 10%

You will be using the iNaturalist app (or website) to collect biodiversity data. Throughout the semester, you will need to get 40 observations (not research grade) of which only 20 can be plants. Pets, indoor house plants and humans are not to be included.

e-journal: 15%

You will hear *way more* about this in lecture but the idea is to compile website/journal/media articles on natural resources ecology issues throughout the semester. For each entry, include a short paragraph (200-250 words) on the natural resource ecology 'theme' provided by me for that week. Themes will be given in class each week and posted to LEARN. For each entry, you should address: **What is the specific issue and why is it important to think about it from a natural resources perspective? Do you have enough information to assess this the problem? How does course content factor into this topic/article?** You will submit 15 e-journal entries over the course of the semester. These entries will be uploaded to LEARN.

Late penalties on LABS:
5%: 1 min to 60 minutes late
10%: every day after that

Late penalties on E-JOURNALS:
Grace period: up to 60 minutes
25% if submitted within the first 24 hours after which you will be unable to submit them

Policies & resources

This syllabus is a contract between us, so you must abide by the policies and schemes laid out here (as will I, for my part). If you have any questions or concerns, please speak with me as soon as possible.

Academic integrity and offences

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. CLICK HERE

You are expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for your actions. If you are unsure whether an action constitutes an offence, or need help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration, please complete the tutorial and seek guidance from the course professor, your Undergraduate Advisor, or the office of the Associate Dean – Undergraduate. When misconduct has been detected, disciplinary penalties will be imposed under Policy 71 – Student Discipline.

For information on categories of offences and types of penalties, refer to Policy 71. Within the Faculty of Environment, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties that may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion.

If you believe that a decision affecting some aspect of your university life has been unfair or unreasonable, you may have grounds for initiating a grievance; see Policy 70 – Student Petitions and Grievances, Section 4 .

When in doubt please contact your Undergraduate Advisor for details. A decision made or penalty imposed under Policy 70 or Policy 71 may be appealed if there is a ground (see Policy 72 – Student Appeals).

Attendance and preparation

You are strongly encouraged to engage with class material throughout the term. Your Professor and TAs will have weekly check-ins where you can ask them questions 'in person'.

AccessAbility

AccessAbility Services (click HERE for info), located in Needles Hall—Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Availability for exams

Supplemental exams are only set for those with medical or similar problems. You are expected to be present for scheduled examinations. No "make up" examinations are provided to accommodate you.

tip:

If you are having any trouble, let us know ASAP. We are here for you. Please don't wait.

Policies & resources

Continued from last page

Mental health

Along with the University of Waterloo and the Faculty of Environment and its Departments, I consider your well-being to be extremely important. We recognize that many students face health challenges, physical and/or emotional. *Please note that help is available.* Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, depression, grief, relationship issues, sexuality, stress management, substance use, and much more.

Religious observances

Please email me at the beginning of term if you require special accommodation for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

TurnItIn

Except as below, plagiarism detection software (TurnItIn) will be used to screen assignments in this course. This is being done to verify that materials and sources in assignments are appropriately documented. For further information on UW's TurnItIn guidelines, go HERE. TurnItIn submissions will be stored on a server in the United States, so if you choose not to use TurnItIn you must make an Alternate Declaration in an email to the your TAs, to be received by Sept 18, 2020, 11:59pm. Students not using TurnItIn must provide alternative documentation submitted to the admin TA with a paper copy of the lab report or project by the assignment due date and time. The alternative documentation to be submitted is (as applicable): template, complete raw data, a rough draft, an extended annotated bibliography for each citation, and original articles or materials used in preparation of the report. Additionally, an electronic copy of the final report is to be uploaded to UW-LEARN by the assignment due date and time.

tip:

We are here to help you learn, so put us to work!

Writing and Communication

The Writing and Communication Centre works across all faculties to help students clarify their ideas, develop their voices, and write in the style appropriate to their disciplines. Writing and Communication Centre staff offer one-on-one e-support in planning assignments and presentations, using and documenting research, organizing and structuring papers, and revising for clarity and coherence. You can make multiple appointments throughout the term. To book an appointment and to meet with them or for more information, click HERE. Please note that writing and communication specialists guide you to see your work as readers would. They can teach you revising skills and strategies, but will not proof-read or edit for you.

Schedule

Week	Day	Topic	Lecture / Lab	Deadlines
1	Sept 8-11	**Intros and overviews**	Lectures (L1)	
2	Sept 14-18	**Important ecological principles**	Lectures (L2)	-E-journal (1)
3	Sept 21-25	**Monitoring resources**	Lectures (L3)	-E-journals (2-3)
4	Sept 28-Oct 2	**Monitoring resources**	Lectures (L4) + Monitoring lab (Lab1)	-E-journals (4-5)
5	Oct 5-9	**Monitoring resources**	Lectures (L5)	**-Lab1 due Oct 9, 11:59pm**
6	**Oct 12-16**	**READING WEEK**		
7	Oct 19-23	**Managing resources**	Lecture (L7)	-E-journal (6)
8	Oct 26-30	**Managing resources**	Lectures (L8)	-E-journals (7-8)
9	Nov 2-6	**Managing resources**	Lectures (L9) + Biodiversity lab (Lab2)	-E-journals (9-10)
10	Nov 9-13	**Managing resources**	Lectures (L10)	**-Lab2 due Nov 13, 11:59pm** -E-journal (11)
11	Nov 16-20	**Conserving resources**	Lectures (L11)	-E-journals (12-13)
12	Nov 23-27	**Conserving resources**	Lectures (L12) + Conservation lab (Lab3)	-E-journals (14-15)
13	Nov 30-Dec 4	**Conserving resources + review**	Lectures (L13)	**-Lab3 due Dec 4, 11:59pm**

How to read Lecture/Lab codes: L2a (L = Lecture, 2 = week 2 , a = part one)
Lab2 (Lab = Lab assignment; 2 = the second one)

All content posted on Tuesday morning of every week

Each week will playout something like this:
An intro video, lecture content, and lab material (if applicable) will be uploaded every Tuesday morning. You are then able to access and complete course content anytime throughout the week. In weeks when assignments and e-journals are due, the deadline will always be Friday at 11:59pm EDT. Your TAs and I will be holding virtual office hours (aka 'check-ins') every week though the 'Discussion' page on LEARN is a great way to get answers to frequency asked questions.