

Department of Biology Course Outline

ENV 4700, Current Topics In Environmental Biology Term W, 2022

Course Description

This course uses a combination of student led seminars and independent learning to explore current approaches to environmental biology and some of the current topics key to the discipline.

Prerequisites (strictly enforced)

Prerequisites: SC/BIOL 2050 4.00 and SC/BIOL 2060 3.00.

Course Instructor(s) and Contact Information

Prof. Dawn Bazely
dbazely@yorku.ca

Prof. Elizabeth Clare
eclare@yorku.ca

Schedule

M	14:30	180
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Evaluation

Assessment will be based on coursework. Students will select **one** topic from the provided topic list that they will personally study for the semester. This will be different for each student. All students will complete the following assignments about their topic.

- 1) Pecha Kucha talk on selected topic – rubric forthcoming (30%)
- 2) poster presentation on selected topic – training in how to create an effective poster forthcoming (30%)
- 3) short video on the selected topic (10%)
- 4) written final report on selected topic – training in structured literature review forthcoming and Wikipedia editing (30%)
- 5) evaluations of all other student seminars (completion mark)

Important Dates

Term starts January 10, 2022

Reading week February 19-25, 2022

Term ends April 11, 2022

NOTE: to confirm important dates such as drop deadlines, holidays, refer to the "Important Dates" section of the Registrar's Website at <http://www.yorku.ca/yorkweb/cs.htm>
You will also find important dates and the current events in the course on the Google Course calendar embedded in eclass.

Resources

This course has no required text book.

Learning Outcomes

The course introduces students to the approaches used by practicing environmental biologist exposing students to cutting-edge experimental approaches and the latest advances in environmental biology.

In this course, students will (but not limited to):

- i. develop critical thinking and problem-solving skills
- ii. develop effective written and oral communication skills
- iii. gain an understanding of the research methods in biology that enable the student to effectively evaluate the appropriateness of different established strategies/techniques to solve problems
- iv. gain an awareness of current issues in environmental biology
- v. gain the ability to effectively design and implement environmental biology research projects

Course Content

Course Content:

The course is divided into three major parts:

- traditional lecture style material including from guest speakers
- training and skills development from experts, and exposure to different career trajectories in Environmental Biology
- student led talks and discussion

Approximate Lecture Outline (subject to change)

Week 1 – Course introduction, Assignments, Introduction of List of Topics, Assessing Students' Strengths, Weaknesses, and Opportunities and Threats in the Course, AND Ethics and Teamwork

Week 2 – DNA barcoding, DNA metabarcoding and Applications

Week 3 – eDNA in environmental research

Week 4 – the scientific obligation to communicate (and posters)

Week 5 – The business of academic publishing, research methods and Open Access

Week 6 – Guest speakers

Week 7 – Reading week, no classes

Week 8 – Guest speakers, Poster Submission

Week 9 – Invasive species

Week 10 – Invasive species, Biodiversity Loss and One Health

Week 11 – Climate Change impacts on invasive species and UNFCCC

Week 12 – Pecha Kucha Talks

Week 13 – Pecha Kucha talks, Final Report Submission

Week 14 – Pecha Kucha talks, Video Submission

Experiential Education and E-Learning

This course will be conducted online in January 2022. Online vs. In person will depend on current public health policy following this period.

Other Information

Extra Assignments: No additional assignments will be provided.

Reading material: There is no required text. Students will be expected to use a variety of literature sources for the preparation of seminars, posters and reports.

Course Policies

Email: Please put ENV 4700 in the subject line. Please include your name and student number at the end of every email. Please allow 2 working days for an answer.

Missed assignment: If you miss an assignment, please inform the instructors beforehand. You will be required to make up the same assignment at a later date.

Penalty for late submission of assignments: 10% per calendar day.

University Policies

Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website at - <http://www.yorku.ca/academicintegrity/>

Access/Disability

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Student's in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are

encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.

Additional information is available at the following websites:

Counselling & Disability Services - <http://cds.info.yorku.ca/>

Counselling & Disability Services at Glendon - <https://www.glendon.yorku.ca/counselling/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete and submit an [Examination Accommodation Form](#) at least 3 weeks before the exam period begins. The form can be obtained from Student Client Services, Student Services Centre or online at http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at - <http://secretariat-policies.info.yorku.ca/policies/disruptive-andor-harassing-behaviour-in-academic-situations-senate-policy/>