



Department of Biology Course Outline SC/BIOL 4700 or SC/ENVB 4700 Current Topics in Environmental Biology Summer 2024

Course Description:

A review of recent advances in environmental biology with an emphasis on current research, experimental design, and biological methods. This includes (but is not limited to): environmental stressors, population ecology, community ecology, behavioural ecology, physiology, terrestrial ecology, quantitative ecology, and environmental management. Six lecture hours per week. One term. 3.00 credits.

Prerequisites:

SC/BIOL 2050 4.00 or SC/BIOL 2050 3.0 and SC/BIOL 2060 3.00 and SC/BIOL 2080 3.0. Or permission of the instructor.

Instructors: Nargol Ghazian & Mario Zuliani

Room 129, Chemistry Building

Email: biology4700yu@gmail.com

Office Hours: By appointment

Schedule:

Mondays and Wednesdays from 2:30-5:30 PM

CB 129 (Chemistry Building)

Evaluation:

Final course grades may be adjusted to conform to Program or Faculty grade distribution profiles.

Participation – 10%

4 Summaries – 20% at 5% each

Infographic – 10%

Oral Presentation – 25%

Capstone Poster– 35%

Written Assignments: Students must submit assignments on the specific Turnitin link on e-Class by the deadline specified by the course Instructors. Extensions will not be granted to students unless there are extenuating circumstances accompanied by an official note (e.g., from a medical doctor or funeral director). Students must inform the course instructors within 48 hours of an extenuating circumstance that prevents the submission of the written assignment. If you know

you are going to miss a deadline for an assessment, please inform the instructors prior to the submission deadline. **10%** of the mark of the assignment will be deducted for each day the assignment is late. If you have academic accommodation and you are requesting an extension, you need to inform the instructors at least 5 days in advance of the assignment's deadline. **There are no deferred submission deadlines in this course.**

Oral Presentations: One or more students will present an oral presentation and facilitate discussion in each class. Unfortunately, if a student misses their presentation date, the class cannot run effectively. Therefore, every student has a responsibility to present and facilitate discussions on their chosen date and no extensions will be granted. If the student misses their presentation, they will receive a mark of 0 on the assignment. Students should meet with the Course Instructor prior to their presentation date to ask questions and solicit feedback.

Participation: Your participation is important to the success of the course. Students will be evaluated on their participation in Oral Presentations and Discussions by the course Instructors. Participation comes from attending the majority of the classes and contributing critically, in addition to attending **all** oral presentation classes. Attendance will be taken for all Oral Presentation classes. Attendance grades will be up to the discretion of the instructors.

Important Dates:

Drop deadline: **July 29th, 2024** (Last day to drop without receiving a grade)

Course withdrawal: July 30th – August 13th, 2024 (course still appears on transcript with "W")

Course end date: August 12th, 2024

Required and Recommended Reading:

There is no required textbook for the course. However, there will be required and recommended reading from the primary and secondary literature which will be assigned to students each week. Required and recommended readings will be made available prior to each class.

Learning Outcomes:

The 'capstone' course prepares students to be a practicing environmental biologist exposing students to cutting-edge experimental design, methodology, and recent advances in environmental biology. The course will include group discussions, research seminars, critiques of research articles in the primary literature, and traditional lectures. 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:

| Date | Topic | What's Due |
|------------------------------|--|--|
| July 3 rd | Introduction to The Course; How to Read Scientific Literature and Conduct a Literature Review; Invasive Species; Intro to Summaries | |
| July 8 th | Climate Change & Extreme Events; Intro to Capstone Project | Summary 1: Invasive Species due at 11:59 PM. |
| July 10 th | Microplastic Pollution | |
| July 15 th | Urban Ecology & Green Urban Infrastructure; Intro to Oral Presentation | Summary 2: Climate change & Extreme Events or Microplastic Pollution due at 11:59 PM. |
| July 17 th | Clean Energy & Canada's Energy Policy; Intro to Infographic | |
| July 22 nd | Future of Meat | Summary 3: Urban Ecology & Green Urban Infrastructure or Clean Energy & Canada's Energy Policy due at 11:59 PM. |
| July 24 th | Restoration, Conservation & Wildlife Management | |
| July 29 th | Oral Presentation Class 1 | Summary 4: Future of Meat or Restoration, Conservation & Wildlife Management due at 11:59 PM. |
| July 31 st | Oral Presentation Class 2 | |
| August 5th | Civic Holiday (no lecture) | |
| August 7 th | Ocean Health & Native Fisheries; Infographic and Capstone help session | Infographic due at 11:59 PM. |
| August 12 th | Fire Ecology and Science of Wildfires | Capstone Project due at 11:59 PM. |

University Policy:

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/academichonesty-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 - <http://www.glendon.yorku.ca/counselling/personal.html> York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/> Ethics Review Process York students are subject to the York University Policy for the Ethics Review Process for Research 5 Involving Human Participants. In particular, students proposing to undertake research involving human participants (e.g., interviewing the director of a company or government agency, having students complete a questionnaire, etc.) are required to submit an Application for Ethical Approval of Research Involving Human Participants at least one month before you plan to begin the research. If you are in doubt as to whether this requirement applies to you, contact your Course Director immediately. 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 an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre or online at

http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf (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/>