

# **BIOB52H3Y 2019**

## **Laboratory in Ecology and Evolutionary Biology**

### **OBJECTIVES:**

- Explore selected concepts in ecology and evolutionary biology
- Develop a variety of lab skills and techniques
- Experience field techniques and an appreciation for fieldwork
- Use computers for ecological and evolutionary analysis
- Improve your literature search and reading skills
- Improve your scientific writing skills
- Improve your ability to think critically, about both data and experiments

### **CALENDAR DETAILS:**

- Prerequisite: BIOA01H3 & BIOA02H3
- Corequisite: BIOB50H3 or BIOB51H3

### **SCHEDULE:**

- One four hour laboratory **every week** (SW321 on Tuesdays; 1pm-5pm).
- A one hour lecture per week (IC326), Tuesdays 12-1pm.
- Quercus: You are responsible for checking the Quercus page for this course frequently. Labs for the following week will be downloadable from Quercus. Also, please check Quercus the evening before labs and lectures for any last minute information and updates.

### **BROUGHT TO YOU BY:**

Your B52 team,

- Lecturer: Karolyn Keir
- TA: Sara Campbell
- Lab Technician: Joanne Pearce

### **EMAIL POLICY:**

- Before emailing, please check information posted for the course on Quercus. We may have already answered your question there.
- For lab related questions, please start by emailing your TA.
- For other matters, please email the instructor.
- When you email, include a subject line that includes "BIOB52" and that summarizes your question.
- We will attempt to reply to your emails within 2/3 days.

### **CONTACT INFORMATION AND OFFICE HOURS:**

- We can be reached in person during our office hours, or at alternate times by request (via email)
- Sara Campbell  
Office: TBD  
Office hours: TBD (Please see Quercus)  
Email: sarae.campbell@mail.utoronto.ca
- Karolyn Keir  
Office: SW238  
Office hours: Thursday 2-3pm  
Email: karolyn.keir@utoronto.ca

### **TEXT & READINGS**

- There is no text specifically for this course. Lab materials will be posted on Quercus for download. Lab materials will be available approximately one week before the relevant lab. Some lab materials will also include pdfs of primary literature, or references to primary literature. You are responsible for reading all provided material **before** lab (see below).
- You are required to read designated lab material before coming to each laboratory.

## EVALUATION

This is a laboratory course, so there are no mid-terms and no final exam. Instead, evaluation will be via:

### **Lab quizzes:**

These are given to assess whether you have understood the lab and background information. The material may consist of: (1) lecture material (usually provided in the lecture the week before the quiz will be given), (2) the instructions/description of the lab, (3) other associated readings for the lab, such as primary scientific literature, and (4) your experience carrying out the lab. Quizzes will sometimes be given at the **start** of the lab. If you miss the quiz, you miss the quiz (i.e., “traffic was terrible- there was an accident on the 401”, “my bus didn’t show up on time”, “I had to leave early to attend a special student event”, are not valid excuses).

### **Lab write-ups:**

**\*\*\*All write-ups will be submitted electronically through Quercus\*\*\***

#### **Results + Discussion**

These will involve the presentation and analysis of data from the lab, and responses to questions posed in the lab handout. All information from external sources must be cited and referenced properly. These will be approximately 2-4 pages in length. These are due at the start of the indicated lab. You will have 1 week to complete this abbreviated write-up.

#### **Lab Report**

This will involve a full write up (title, abstract, introduction, methods, results, discussion) of one of the single lab period labs. All information from external sources must be cited and reference properly. These will be approximately 5-10 pages in length. This will be due at the start of the indicated lab. You will have 2 weeks to complete this write-up. More details can be found in write-up instructions.

#### **Literature Review**

This will involve extensively researching one of the multi lab period lab topics (Inbreeding depression, Genetic Drift, or Eutrophication) and synthesizing information in a logical and thoughtful way. It should be 5-7 pages in length and include at least 15 primary references. You can think of it as an expanded introduction to the lab. More details can be found in the write-up instructions.

#### **Major Lab Report**

This will involve a full write up (title, abstract, introduction, methods, results, discussion) of one of the multi lab period labs. Data will be compiled from all student experiments. All information from external sources must be cited and reference properly. These will be approximately 10-15 pages in length. This will be due on the last day of classes. You will have 2 weeks or more complete this write-up but you should begin as soon as possible. More details can be found in write-up instructions.

**Other:**

**Herbarium Assignment:** This will involve collecting, pressing and presentation 20 different native plant specimens. More details will be posted on Quercus.

**Group presentation:** During the final lab period, you, along with the other members of the class who have chosen the same major topic, will give a group presentation of the the lab. You will be expected to provide relevant background information, speak critically about methods, present and discuss class results, as well as field questions.

**Participation:** Participation mark will be determined by attendance in lecture and lab, as well as your level of engagement.

**For missed labs or term work:**

**You are expected to attend all labs and lectures in this course. If you are ill, and require accommodation as a result of your illness, please follow these instructions. Please note that you are only able to be excused from two labs owing to a documented illness.**

If you are ill during the term, and this illness influences your ability to meet a deadline for submission of a term assignment, rather than submitting a Verification of Student Illness form in your request for accommodation you can submit a Self-Declaration of Student Illness form, indicating the days in which you were ill. This form is meant to take the place of the more typical medical form, and will be available on the main page of the department's website [www.utsc.utoronto.ca/biosci](http://www.utsc.utoronto.ca/biosci).

Please note the following aspects related to this Self-Declaration of Student Illness form:

1. Similar to the submission of a medical form, **YOU ARE RESPONSIBLE** for contacting the professor for this course to make arrangements for an accommodation for this work.
2. You may use the Self-Declaration of Student Illness form **ONLY for term assignments**.
3. You may use the Self-Declaration of Student Illness form only two times in this course. If you require an additional accommodation for a term assignment, you must then use the standard Verification of Student Illness form.
4. *Submitting a false Self-Declaration of Student Illness form constitutes academic misconduct, and could be subject to sanctions under the Code of Behaviour on Academic Matters.*

Please submit any Self-Declaration of Student Illness forms in the same fashion as you would have a previous Verification of Student Illness form. Accordingly, you will need to submit this form to Jennifer Campbell, Course Coordinator **within three days of the missed term work**.

Please ensure you consult the course syllabus for policies and procedures regarding missed term work and possible accommodations. Once you have submitted the Self Declaration form or UTSC medical certificate to the instructor, you will be given instructions on what accommodations (if any) you will have. **Accommodation for your absence will most likely be that data will be provided to you so that you can complete the required assignments. Assignments will not be reweighted in BIOB52.**

**Marks will be assigned as follows:**

	<b>Number</b>	<b>Value for each</b>	<b>Percent of total</b>
Quizzes	5	2%	10%
Results + Discussion	3	5%	15%
Lab Report (Invasive snail lab)	1	8%	8%
Literature Review of Major Topic	1	7%	7%
Lab Reports (with more than one lab of data collection)	1	20%	20%
Group Presentation	1	10%	10%
Herbarium Assignment	1	20%	20%
Participation			10%

**Late Reports:**

Handing in reports after the deadline (the start of the indicated lab) will result in a deduction of 10% per day.

**AccessAbility Statement:**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services as soon as possible.

AccessAbility Services staff (located in Rm SW302, Science Wing) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

**Academic Integrity Statement:**

*The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.*

*Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.*

*On tests and exams cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.*

**Turnitin Statement:**

*Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.*