

# **BIOB52H3F 2016**

## **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 per week (SW321 on Tuesdays, 2 – 6 pm). Some labs will be held in the Bladen computer labs in rooms to be announced.
- A one hour lecture per week (MW160), Tuesdays 1-2 pm.
- Blackboard: You are responsible for checking the Blackboard information for this course frequently. Labs for the following week will be downloadable from Blackboard. Also, please check Blackboard the evening before labs and lectures for last minute information and updates.

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

Your B52 team,

- Professor: Dr. Robin Marushia
- TA: Sara Campbell
- Lab Master: Joanne Pearce

### **EMAIL POLICY:**

- Before emailing, please check the Blackboard information for the course. 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: SW560  
Office hours: Thurs. 1:30 – 2:30 pm  
Email: [sarae.campbell@mail.utoronto.ca](mailto:sarae.campbell@mail.utoronto.ca)
- Robin Marushia Office: SW521B (or SW563B during busy pre-exam periods).  
Office hours: Tuesday 10 – 11 am  
Email: [rmarushia@utsc.utoronto.ca](mailto:rmarushia@utsc.utoronto.ca)

## TEXT & READINGS

- There is no text specifically for this course. Lab materials will be posted on the Blackboard 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. Some labs will start with a pre-lab (or post-lab!) quiz. These will count towards your final grade (see EVALUATION below)
- For computer labs, you may need to purchase a small packet of lab material for \$10. These will be available from TAs in your lab.

## 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 are fully prepared for the lab, and have understood the material. The material may consist of: (1) lecture material (usually provided in the lecture the day before the lab), (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 in question, and sometimes at the **end** of the lab in question (you will not know when quizzes are scheduled). 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:

These will involve the presentation and analysis of data from the lab, and responses to questions posed in the lab handout. These will be 4-5 pages in length. These are due at the start of the indicated lab. You generally have 1 or 2 weeks to complete the write-up.

### Participation:

We want you to participate fully in lab exercises. This mark will be based on lab attendance and lab participation. If you miss a lab without a valid medical note, you will lose your participation mark.

**Marks will be assigned as follows:**

	<b>Number</b>	<b>Value for each</b>	<b>Percent of total</b>
Pre-lab quizzes	4	5%	20%
Remaining Write-ups	5	15%	75%
Participation			5%
TOTAL			100%

**Late Reports:**

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

**Plagiarism:**

NOTE: You may collaborate in evaluating the results of the labs. However, the writing of all turned in material must be your own. Thus, you may not copy from anyone's report (or from any other source) from this year or from any other year. Plagiarism will be dealt with under the Code of Behaviour on Academic Matters.

**Academic Integrity Policy:**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, 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 include, but are not limited to:

In papers and assignments:

- 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:

- Using or possessing unauthorized aids.
- Looking at someone else's answers during an exam or test.
- Misrepresenting your identity.

In academic work:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from Dr. Marushia or from other institutional resources (see <http://academicintegrity.utoronto.ca/>).

**Accessibility:**

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.

Lab Schedule, BIOB52H3 Y Summer 2016

Week	Date	Lecture (tentative)	Lab	WRITE-UP DUE
1	May 3	Biodiversity	Biodiversity of Plant Communities	
2	May 10	Sex and Fitness	Are Males Cheaper Than Females?	
3	May 17	Phylogenetics	Phylogenetics of Vertebrates	
4	May 24	Microevolution	Flowers & Trees: Phylogenetics Computer Lab	Males vs. Females
5	May 31	Natural Selection	Natural Selection in an Invasive Snail	
6	June 7	Eutrophication	Genetic Drift In <i>Drosophila</i> I, Eutrophication I	Phylogenetics
<b>7</b>	<b>June 14</b>	<b>No Class – Reading Week</b>	<b>No Class – Reading Week</b>	
8	June 21	Global Change I	Genetic Drift In <i>Drosophila</i> II, Eutrophication II	
9	June 28	Global Change II	End Eutrophication, Genetic Drift Exercise	Snail Selection
10	July 5	Conservation Genetics	End Genetic Drift in <i>Drosophila</i> , BFF Computer Lab	
11	July 12	Phenotypic Plasticity	Phenotypic Plasticity of Shade vs Sun Leaves	Genetic Drift
12	July 19	Landscape Ecology	Patchy Prairies Conservation Computer Lab	
13	July 26	TBD	<i>Student Seminar Day</i>	Eutrophication