

Dept. of Biological Sciences, University of Toronto Scarborough  
**BIOB50H3F (Ecology) Syllabus, Fall 2020**  
**Prof. Péter Molnár**

### **Course description**

BIOB50 provides an introduction to the main principles of ecology, the science of the interactions of organisms with each other and with their environment. Topics include physiological ecology, behavioural ecology, population ecology, community ecology, and applied aspects of ecology (e.g. disease ecology, climate change impacts, and approaches to conservation). Emphasis is given to understanding the connections between ecology and other biological subdisciplines.

### **Course information**

*Instructor:*

Dr. Péter Molnár

*Office hours:* Mondays, 1-2pm, Tuesdays 2.30-3.30pm

*Email:* [peter.molnar@utoronto.ca](mailto:peter.molnar@utoronto.ca) (please put **BIOB50** in the subject line)

*Teaching Assistants:*

Stephanie Penk, [sr.penk@mail.utoronto.ca](mailto:sr.penk@mail.utoronto.ca)

Natalia Sandoval Herrera, [natalia.sandovalherrera@mail.utoronto.ca](mailto:natalia.sandovalherrera@mail.utoronto.ca)

Juan Vargas Soto, [juan.vargassoto@mail.utoronto.ca](mailto:juan.vargassoto@mail.utoronto.ca)

*Course coordinator:*

Jennifer Campbell, [jac.campbell@utoronto.ca](mailto:jac.campbell@utoronto.ca)

*Lecture times & location:*

Tuesdays, 4-6pm.

All lectures will be streamed live on Blackboard Collaborate, and will also be recorded and available on Quercus for later viewing.

See below for tentative lecture schedule.

*Tutorials:*

The tutorial slot (Thursdays, 5-7pm) is shared with BIOB10 (Cell Biology) and BIOB34 (Animal Physiology), so tutorials will be scheduled on alternating dates such that there is no overlap with these courses. BIOB50 tutorials will be used to review key materials and practice questions before the exams; the dates for these tutorials will be announced at a later date.

*Textbook:*

Bowman, W.D., Hacker, S.D. *Ecology – 5th edition*. Sinauer Associates, Inc.

## Course resources

*Course Website:* All lecture slides will be posted on Quercus before the lecture.

Additional announcements may be made on Quercus, as well, so please check the course website regularly.

*Textbook & Course Readings:* Textbook readings (Bowman, W.D., Hacker, S.D., Cain. *Ecology – 5th edition*. Sinauer Associates, Inc.) will be announced one week before each lecture and will broadly follow the tentative lecture schedule that is outlined below. Additional readings from the primary literature will also be assigned at times. Lectures will be used to reinforce and discuss the assigned readings, as well as to introduce some additional concepts and examples that may not be covered in the textbook. **So it is to your benefit to come prepared and complete all readings before each lecture (cf. also 'Evaluation: Online quizzes')**. Students are responsible for knowing both the lecture material and all assigned readings.

*Textbook website:* Sinauer offers a website accompanying the textbook at (<https://learninglink.oup.com/access/bowman5e>). Here, you will find chapter summaries, hands-on practice problems, flashcards for studying, additional readings and many other things. You are encouraged to use this resource for studying, but be aware that (a) not everything that is in the textbook is covered in the course, and (b) lectures provide additional information that is not covered by the textbook.

*Quercus Discussion Group:*

If you have conceptual questions regarding the course content, please check the Quercus Discussion Group or email one of the TAs if your question has not been answered yet. Often, a lot of students will have the same question, so TAs will answer the most common questions on the Quercus Discussion Group that is available on the course website.

*How to Get Help with the Course:*

**First, check this syllabus and the course website!** You will find the answer to almost all procedural questions here. If you have a question that is not answered by either the syllabus or the course website, contact the course coordinator, Jennifer Campbell ([jac.campbell@utoronto.ca](mailto:jac.campbell@utoronto.ca)), for all **procedural questions**. For **conceptual questions regarding the lecture**, make use of the Quercus Discussion group and/or email either the instructor or the TA in charge. For **conceptual questions regarding the assigned readings**, make use of the Quercus Discussion group and/or email either the assigned TA. For **conceptual questions regarding the tutorial**, make use of the Quercus Discussion group and/or email either the TA in charge. TAs and the instructor will respond to all emails in a reasonably timely manner, Monday through Friday, but will not respond to questions where the answer is found in the syllabus and/or when the question has already been answered on Quercus. When emailing us, **please use your UTOR email only** (as

hotmail, gmail and other email providers are spam-filtered on a regular basis), and **please begin your subject line with “BIOB50: <subject>” to make sure emails are not overlooked.** It is the responsibility of the student to adhere to these instructions and make sure his or her email reaches the instructor.

### Tentative Lecture Schedule

Date	Lecture	Topic	Chapter*
Sep 8	1	Course Introduction	1
Sep 15	2	Organisms & their environment	2-4
Sep 22	3	The “common currency” of energy / Life history	5, 7
Sep 29	4	Populations 1	9-11
Oct 6	5	Populations 2	9-11
<b>Oct. 10-16</b>	<b>Reading week</b>		
Oct 20	6	Interactions 1: Competition	14
Oct 27	7	Interactions 2: Predator-prey dynamics	12
Nov 3	8	Interactions 3: Parasitism & Disease, part 1	13
Nov 10	9	Interactions 4: Parasitism & Disease, part 2	13
Nov 17	10	Communities 1: Characterizing communities Change in communities	16, 19
Nov 24	11	Communities 2: Change in communities / Biogeography	17, 18
Dec 1	12	Global change	24, 25

\* The book chapters provided here are to be considered a rough roadmap. Precise readings will be assigned one week prior to each lecture.

### Evaluation

*If you are taking BIOB90:*

BIOB90 Integrative Research Poster Project	10%
Quizzes	5%
Nature Activity	5%
Midterm 1	20%
Midterm 2	20%
Final exam	40%

*If you are not taking BIOB90:*

Quizzes	5%
Nature Activity	7.5%
Midterm 1	22.5%
Midterm 2	22.5%
Final exam	42.5%

**Quizzes:**

Textbook and other readings will be assigned one week prior to each lecture. **Students are expected to complete these readings before lecture in order to allow classroom discussions on the material.** Short online quizzes will test your comprehension of the assigned readings and will also be posted on Quercus each week. There will be ten quizzes in total, each worth 0.5% of your mark. Quizzes will generally be posted no later than Wednesday evening, **and must be completed by Tuesday 3pm, i.e. before each lecture.** If a student fails to complete the quiz by the deadline, a mark of zero will be assigned for that quiz; no extensions will be granted regardless of the reasons for missing the quiz.

**Nature Activity:**

Details will be announced at a later date in a separate document.

**Midterms & Final:**

All exams will aim to test your knowledge regarding the topics covered in the lecture and assigned course readings, as well as your **ability to think critically and apply the learned concepts to novel situations and problems.** Exams will be a combination of multiple choice questions and short answer questions, similar to those provided in lecture, the tutorials, and in the quizzes. The final exam will cover **all materials** discussed throughout the course.

**Missed exams:**

Students who miss the midterm exam for reasons entirely beyond their control may, within three (3) days of the missed test, submit a written request for special consideration to the course coordinator (Jennifer Campbell), explaining the reasons for missing the test and attaching appropriate documentation. If it is then determined that you had a valid reason for missing the midterm, you will be permitted to write a make-up midterm exam (usually within 1-2 weeks of the missed exam). If you know that you will miss the test prior to the exam, contact the course coordinator immediately.

If you miss the final exam, you must contact the UTSC's Registrar's Office with appropriate documentation to request a deferred exam. For details and deadlines, refer to <http://www.utsc.utoronto.ca/registrar/deferred-exams> and <http://www.utsc.utoronto.ca/registrar/missing-examination>.

**BIOB90 Integrative Research Poster Project:**

BIOB90 Integrative Research Poster Project Students enrolled in BIOB90 should visit the BIOB90 Quercus course page for information about this project. Their grade on the poster project counts for 10% of their final grade in this course

## **AccessAbility**

Everyone is a welcome member of this class, and we strive to provide an equal playing field for students with diverse learning styles and needs. In particular, if you have a disability/health consideration that may require accommodations, please contact the AccessAbility office as soon as possible. They will provide confidential services that include flexible, personalized solutions for test-taking, note-taking, and similar issues. The AccessAbility office is located in AA142 and can be reached at: (416) 287-7560 or [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca). Please see their website at <https://www.utsc.utoronto.ca/~ability/> for more information.

## **Academic Integrity**

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* outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

- using someone else's ideas or words in their own work without appropriate acknowledgment.
- including false, misleading or concocted citations in your work.
- obtaining unauthorized assistance on any assignment.
- providing unauthorized assistance to another student. This includes showing another student completed work.
- submitting your own work for credit in more than one course without the permission of the instructor
- falsifying or altering any documentation required by the University. This includes, but is not limited to, doctor's notes.
- using or possessing an unauthorized aid in any test or exam.

The learning environment is built on mutual trust, and we will assume that all students operate with honesty and integrity. However, in the rare cases where there is evidence that the University of Toronto's Code of Behaviour on Academic Matters has been compromised, I will enact the procedures outlined in the Code of Behaviour on Academic Matters. First, I will invite you to discuss the possible offence through an email invitation. If our discussion leads me to believe that you have not compromised the code, then the matter will be dropped. If either you fail to respond to two requests for this discussion or new evidence comes to light, then a formal investigation will be initiated, and a penalty according to the U of T's guidelines on sanctions will be put into place.

**Copyright in Instructional Settings:** All lectures and tutorials will be recorded and are available for later viewing on the course website. Downloading and reproduction of materials provided by instructors, including the lecture, tutorials, quizzes and exams, is an infringement of copyright and therefore prohibited.