

# Biology 2483B – Ecology 2019

An introduction to ecology, the scientific study of the interactions that determine the distribution and abundance of plants, animals, and microorganisms. Ecological concepts at the organism, population and ecosystem levels will be considered, including tolerance limits, life history evolution, competition, predation, population growth and control, and ecosystem dynamics.

Instructor: Tim Hain, tjhain@uwo.ca, Collip Building Room 209

Prerequisite: A minimum mark of 60% in either Biology 1001A or 1201A and a minimum mark of 60% in either Biology 1002B or 1202B.

## **Lectures:**

Lecture recordings will be posted on the OWL 2483B website. There are a total of 24 lectures in the course, spread out over 6 weeks. Lectures will be split into two or three parts, separated by a couple of unmarked multiple-choice questions that you can use to test your understanding.

The first 12 lectures will be made available to you on June 17, and the second set of twelve lectures will be available on July 7, after the midterm. I recommend that you refer to the schedule on the third page of the syllabus, and follow it as closely as possible, so that you do not fall behind. You are welcome to work ahead on the lectures, but the weekly quizzes must be completed in the week they are scheduled.

## **Textbook**

Supplemental learning exercises will be drawn from the software package SimBio. This software is required for completion of the tutorials. The software can be purchased from the SimBio website for \$40US with a credit card. A link will be posted on the OWL course website. Students are encouraged to treat these exercises as a tutorial. Quiz, midterm, and exam questions could come from material presented in these sections.

There is no required textbook for the course. Lectures draw on material from Ecology, 3<sup>rd</sup> Edition, by M.L. Cain *et al.* (Sinauer Associates, Inc.). This text will be available on 1-day reserve at Taylor Library.

## **Forums and Office Hours**

With an online course, it is easy to feel isolated from your classmates. I encourage you to use the forums to ask questions and interact with your classmates. I may wait for up to 24 hours to respond to questions on the forums to try to encourage classmates to help each other. In the three days leading up to the tests, I will respond more quickly.

Office hours will normally be held every Thursday from 7pm to 8pm, using the Collaborate tool found on the course website. Sometime after June 1, click on the “Office hours” tab and try logging into the “Setup” session. If you can do that successfully, you will be ready to participate in office hours. In Office hours, you can ask your questions through chat, and I will answer orally. You will be able to see me, but I will not be able to see you.

## **Evaluations**

10%	SimBio ‘tutorial’ assignments
10%	Weekly quizzes (posted from Wednesday-Monday)
30%	Midterm (July 6, 2pm, Location to be announced)
50%	Final exam (date to be determined by the registrar’s office, will fall between July 29 and August 1)

### **Assignments**

On weeks when there are not tests (that is, weeks 1, 2, 4, and 5), there is an interactive SimBio tutorial. These tutorials replace the 3-hour tutorials that students do during the fall term, so you should be prepared to spend a few hours on each assignment. These tutorials must be completed by the following Monday at 12 noon (with the exception of the second assignment, which is due on July 2 instead of July 1). The four tutorials are worth a total of 10% (2.5% each). Each tutorial has a short quiz at the end that will be marked and your mark on that quiz will be your mark for the tutorial. However, if you complete the quiz by the due date and do not score at least 50% on the quiz, you will still be given 1.25% on the tutorial for your participation.

### ***Alternative assignment***

Sometimes software does not work, sometimes you are too busy to complete an assignment on time. If for whatever reason you cannot complete an assignment before the due date, or if you just want to try something different, you can complete the Alternative Twitter assignment, which is described in a separate document. You can complete the alternative assignment once, and the due date is July 27. It is worth as much as the SimBio assignments.

### **Quizzes**

There will be four small quizzes throughout the course, worth a total of 10% (2.5% each). These quizzes will be scheduled after the 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> weeks of class so that you are not doing a quiz close to your midterm or final exam (see the course schedule below). The quizzes will be posted on Wednesday, and you will have until the following Monday at 12 noon to complete the quiz before it is removed from the course website. Each quiz will have five questions, with one question from each lecture plus one question based on the SimBio exercise for the week.

### **Midterm**

The midterm is scheduled for July 6, 2019 at 2:00pm and the location will be announced closer to the beginning of class, and is worth 30% of your final mark. The format is multiple choice, and will draw on the first 12 lectures (3 weeks of material) plus the SimBio exercises completed by that time. Further details will be posted on the OWL course website.

If you are writing either of the tests outside of London, please refer to the Registrar's website on Distance Studies Examinations: [http://www.registrar.uwo.ca/applying/distance\\_studies/examinations.html](http://www.registrar.uwo.ca/applying/distance_studies/examinations.html)

### **Final Exam**

The final exam will be scheduled by the registrar's office for a date between July 29 and August 1, 2019. The final exam is worth 50% of your final mark. The format is multiple choice, and will draw on the material from the entire course, with an emphasis on material from the second half of the course. Some questions will test your ability to integrate information from the first and second halves of the course. Further details will be posted on the OWL course website.

### **Accessibility**

Please contact the course instructor if you require material in an alternate format or if you require other arrangements to make the course accessible to you. You should also contact Services for Students with Disabilities (SSD) at 661-2111 x82147 for specific questions regarding accommodation.

## Support Services

Support services for students are available through the Registrar's office: <http://www.registrar.uwo.ca>. Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

## Course Schedule

*Note that for all SimBio assignments and all Quizzes, the due date is the Monday of the following week, at noon. So, for example, the due date for Quiz 1 and the Physiological Ecology assignment is 12:00 noon on Monday, June 24. There are no extensions available for late assignments. Please refer to the section on "Alternative assignment" above if you miss a due date.*

**AN EXCEPTION:** *The quiz and assignment that would normally be due on July 1 are instead due on July 2 at noon.*

Week	Recommended completion date			Test/Exam
	Monday	Wednesday	Friday	
Week 1 (June 17-23)	1: Ecology introduction 2: Physical environment	3: Environmental Variation: Temperature and Water 4: Env. Variation: Energy <i>SimBio Exercise: Physiological Ecology</i>	Quiz #1	
Week 2 (June 24-30)	5. Ecology and Evolution 6. Life History	7. Behavioural Ecology 8. Population Distribution and Abundance <i>SimBio Exercise: Behavioural Ecology</i>	Quiz #2	
Week 3 (July 1-7)	9. Population Growth and Regulation 10. Population Dynamics	11. Competition 12. Predation and Herbivory		Midterm, July 7 at 2:00pm
Week 4 (July 8-14)	13. Parasitism 14. Mutualism and Commensalism	15. Nature of Communities 16. Change in Communities <i>SimBio Exercise: Predation, Herbivory, and Parasitism</i>	Quiz #3	
Week 5 (July 15-21)	17. Biogeography 18. Species Diversity in Communities	19. Production 20. Energy Flow & Food Webs <i>SimBio Exercise: Biogeography</i>	Quiz #4	
Week 6 (July 22-28)	21. Nutrient Supply and Cycling 22. Conservation Biology	23. Landscape Ecology 24. Global Biology		Final exam, date to be determined (July 29 - August 1)