

**BIOB50: Ecology
Winter 2013**

Course information

Lecture times:

Tuesday & Thursday, 10-11am

Location:

Academic Centre (AC) 223

Tutorial:

Thursday, 5-7pm, AC-223 (every third week)

Textbook:

Cain, M.L., Bowman, W.D. and Hacker, S.D. *Ecology -2 edition*. Sinauer Associates, Inc. Paper and e-book options available!

Exams:

2 midterms and 1 final

Midterm 1: TBA

Midterm 2: TBA

Final: TBA

Project:

Ecology-news assignment

Professor:

Marc Cadotte

Office: Science Wing 542

Office hours: Tuesdays 11-12pm

Email: mcadotte@utsc.utoronto.ca (please put BIOB50 in the subject line)

Phone: 416-208-5105

Teaching Assistants:

Nicholas Mirotnick, nicholas.mirotnick@utoronto.ca

Lanna Jin, lanna.jin@utoronto.ca

Course description

An introduction to the main principles of ecology, the science of the interactions of organisms with each other and with their environment. The course covers community and population ecology, and provides an emphasis on how ecology relates to other areas of biology, and to contemporary human and environmental issues.

Ecology is the interdisciplinary scientific study of the interactions between organisms and the interactions of these organisms with their environment. A conceptual understanding of ecology is found in the broader details of study, including:

- *life processes explaining adaptations
- * distribution and abundance of organisms
- * the flux of materials and energy through living communities
- * the successional development of ecosystems, and

* the abundance and distribution of biodiversity in context of the environment.

Course Resources

Course Website and Online Lectures: Lecture notes (PDF copies of the powerpoint slides) will be posted on intranet by noon the day before the lecture. You should familiarize yourself with intranet and its contents, as check it regularly.

Textbook: Cain, M.L., Bowman, W.D. and Hacker, S.D. (2011) *Ecology 2nd Edition*. Sinauer Associates, Inc. Paper and e-book options available! This book will be used heavily in forming lectures and students are responsible for understanding concepts in lecture by understanding chapter material.

Tutorial: #1: TA present on picking a news topic and finding ecology papers, #2: population growth and simple competition models; time to discuss paper projects, #3: Ecology-News assignment due, review semester material.

How to Get Help with the Course. First, check this syllabus; you will find the answer to almost all procedural questions here. If you have a question that cannot be answered by this syllabus, check the course website, which will be consistently updated with answers to many conceptual and procedural questions. If this does not answer your question, then decide if the question is conceptual or procedural. Conceptual questions are best answered by the TAs or the professor's office hours. If you have other questions, feel free to email either TA or the professor. The professor will return your email in a reasonably timely fashion Monday through Friday, but the fastest way to find your answer will be the FAQ.

Course Requirements/Marking

Exams. (25,25,35)

Ecology-news assignment (15)

Missed Exams. According to University policy, you may miss one of the exams if you are unable to take the regularly scheduled exam for a number of legitimate reasons. If we determine that you have a good reason, then your final exam mark will be expanded to cover your missed course mark (i.e., your final exam will be worth 60% of your final mark). You will need to obtain verifiable documentation of the reason for missing the exam, and contact the TAs or Professor immediately. Unless the reason for missing the exam is an unforeseen emergency that occurs within 24 hours of the midterm, then you must notify us more than 24 hours before the start of the midterm in order to be eligible for the altered marking scheme. In the case of a same-day emergency, you must submit an official U of T medical certificate. If you must miss the final exam, then you will need to contact

the UTSC Registrar's Office, as we are not authorized to handle changes to the final exam schedule.

Accessibility

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. Please contact the AccessAbility office as soon as possible if you need any form of accommodation. They will provide confidential services that include flexible, personalized solutions for test-taking, note-taking, and the like. The AccessAbility office is located in SW302 and can be emailed at: ability@utsc.utoronto.ca

Academic Integrity

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 of substantial evidence that the University of Toronto's Code of Behaviour on Academic Matters (Section B; <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) has been compromised, then 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.

Lecture Schedule

Date	Lecture	Topic	Chapters
10-Jan	1	What is ecology	1
12-Jan	2	Ecology as science	1
17-Jan	3	Organisms and their environment	2-3
19-Jan	4	Its all about energy	5,19
24-Jan	5	Its all about energy	5,19
26-Jan	6	Life-history	7
31-Jan	7	Population I	8-12
02-Feb	8	Population II	8-12
07-Feb	9	Competition I	11
09-Feb	10	Competition II	11
14-Feb	11	Predation	12
16-Feb	12	Parasitism	13
21-Feb		Reading week	
23-Feb		Reading week	
28-Feb	13	Mutualism	12
01-Mar	14	Communities	15
06-Mar	15	Community change	16
08-Mar	16	Diversity -Niches	18
13-Mar	17	Measuring diversity	18
15-Mar	18	Biodiversity & ecosystem function	NA
20-Mar	19	Landscapes	23
22-Mar	20	Conservation biology	22
27-Mar	21	Diversity Neutral & metacommunities	NA
29-Mar	22	Food webs	18
03-Apr	23	Evolution & ecology	6
05-Apr	24	Biogeography	17

Tutorial	Date	Activities
1	26-Jan	Selecting News topic, searching for articles
2	16-Feb	Population and competition models; answer question about project;
3	15-Mar	Predation models, measuring diversity
4	5-Apr	Exam review -if needed