ADVANCED POPULATION ECOLOGY
BioC59 (autumn 2016)

Instructor: Dr. Rudy Boonstra
Office: S543
Phone: 287-7419
Lecture Room: BV355 - Wed 9-11
Laboratory/Seminar: SW323 - Thursday 12-15
Office Hours: Wednesday 11-12
T.A.   Sophia Lavergne
Office Hours: Immediately following the Lab

Prerequisites: BioB50   Exclusion: EEB319H, (BGYC59H3), (BIO319H)

Course Text: C.J. Krebs 2009 Ecology: **The Experimental Analysis of Distribution and Abundance.** Benjamin Cummings; Chapters 1-17: Parts 1 to 3

Email Policy: *Do not send emails.* Contact should be during office hours or in the lecture/lab

Marking Scheme: Exams: Midterm - 30%; Final - 25%; Essay - 10%, Essay Seminar - 5%; Laboratory Assignments - 25%; Participation- 5%

Course Homepage: Available through UTSC homepage, upper right: Blackboard Portal. All communication will be done via this mechanism. Check it weekly and more often near due dates for assignments. Lecture slides, data files, essay writing tools, news items, etc. will be posted.

Announcements: It is YOUR responsibility to be aware of announcements made in class. Be sure to CHECK the homepage on lecture days to read the announcements.

Readings: Textbook Chapters that should be read in support of lecture material are outlined on the course schedule. You should ensure that you UNDERSTAND everything you read and can follow the examples given. For exams, concentrate on learning material presented in lectures and related material in your text. I recommend you do the readings weekly as this is the best way to ensure you understand the material. Work through examples at end of the chapters.
To succeed in this course, you should KNOW the lecture material and be sure you UNDERSTAND the TEXT and readings.

Exams: Each exam will consist of definitions of basic concepts, short answer, and 2-3 essays. The latter require you to synthesize concepts from the lecture/text and support them examples from the lecture/text. When I discuss techniques, make sure you understand and can apply them. Material for the midterm will include all lecture material to that point. The final will be comprehensive, but stress the new lectures (2/3s) and key concepts that integrate material.

Essay and Seminar: All topics must be cleared with me. See the handout specifically on this assignment. The essay will be **due on 24 November** *(no exceptions! 10% per day late penalty)* and the seminars will be presented on 24 Nov and 1 Dec (half the class presenting each time).

Assignments: All assignments (essay and lab reports) must be handed in as paper copies.

Lecture Schedule (tentative)

7 September	Definitions and scope of the field (Krebs chapters 1-3)
	Regulation of Population Size (part of Krebs chapter 14)
14 September	Population Demography and Growth (Krebs 8)
21 September	Population Growth (Krebs 9)
28 September	Species Interactions: Competition (Krebs 10)
5 October	Species Interactions: Competition (Krebs 10) & Predation (Krebs 11)
11-14 October	Reading Week
19 October	Species Interactions: Predation (Krebs 11)
26 October	MidTerm Exam
2 November	Regulation of Population Size (Krebs 14)
	Analyzing Geographic Distributions (Krebs 4)
9 November	Factors That Limit Distribution I: Biotic (Krebs 5)
16 November	Factors That Limit Distribution II: Abiotic (Krebs 6)
23 November	Relationship between Distribution and Abundance (Krebs 7)
30 November	Applied Problems: Pest Control (Krebs 16)

Tentative Lab Schedule

8 September	No lab
15 September	Field trip: Vegetation Lab 12:00 onwards
22 September	Goldenrod Lab: weighing of specimens, data input
29 September	Vegetation Lab: data input and analysis
6 October	**Goldenrod Lab Due**
	Small Mammal field trip - trap Set up
13 October	No Lab (reading week)
20 October	Small mammal trapping
27 October	**Vegetation Lab Due**
	Small mammal trapping, discussion of data and assignment
3 November	no lab
10 November	**Small Mammal Lab Due**
17 November	How to Present a Seminar session
24 November	**Essay Due**
	Seminar Presentations (half the class)
1 December	Seminar Presentations (other half of the class)