

PYMATUNING LABORATORY FOR ECOLOGY

COURSE: Behavioral Ecology: Summer 2016
June 6—June 24

PROFESSOR: Dr. Nina N. Thumser
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TEXTBOOK: Introduction to Behavioral Ecology, 4th edition
. Davies N.B., J.R Krebs, and S. A. West 2012

Exploring Animal Behavior in Laboratory and Field
Ploger, B.J. and K Yasukawa; 2003

COURSE DESCRIPTION: Animal behavior is studied from an evolutionary and ecological perspective. Current models of foraging, mating, and social behaviors are evaluated through lecture, readings, field observation and experiments.

Grades for this course are based on a standard 60-70-80-90 scale, with **500** total points as follows:

Two 125-Point Lecture Exams **250 points**

Exams will be entirely short-essay format.

Research Project **100 points**

The project will be a field study designed, conducted and reported by groups of 1-4 students. It will consist of a project description (5%), a written research report following the journal *Animal Behaviour* style guidelines (70%) and a 15-20 minute oral presentation (25%) based on this report will be required for each group. Study must be approved.

Class exercises **100 points**

Assignments based on lab and field exercises.

Student led discussions and participation **50 points**

Each student will present and lead a discussion on a chapter from the text or a journal article on behavioral ecology. Grades will also be assigned for each student's participation in all of these class discussions. Topics must be approved by the instructor and presentation dates will be set at that time.

Under the standard scale, 448 points are necessary for an A, 398 for a B, 348 for a C, and 298 for a D. Pluses and minus may be given if your school permits.

Attendance: Attendance at all class periods is absolutely required. *Students who must miss an exam or a date when an assignment is due must notify me ASAP.* Make-up exams for students whose absences are excused must be taken on an arranged basis within two days of the absence. Assignments must be turned in as soon as possible if an excused absence is granted.

COURSE SCHEDULE

Students are expected to do assigned readings from the text and outside sources prior to each lecture. Field and laboratory activities are subject to changes in schedule. Classes will normally begin at 8:30 am and end by 5:00 pm.

Date	Lecture Topic (Krebs... Reading)	Laboratory Activity (Krebs... Readings)	Field Activity (Ploger... Readings)
M, 6 June	Introduction: Behavior Eco (Chapter 1)	Discuss measuring behavior	Describing behavior (Chapter 1)
T, 7 June	Testing Hypotheses (Chapter 2)	Go over research project- ideas, teams	Quantify behavior/crickets/tour (Chapter 1 Appendix C)
W, 8 June	Economic Decisions (Chapter 3)	House crickets lab (Chapter 2) Worksheet 1 due	Determine research teams and project ideas. Select class experiments. Mini boards
R, 9 June	Arms Race (Chapter 4)	Project/set-up time	Begin experiments
F, 10 June	Competition (Chapter 5)	Cricket exercise due	Experiments cont.
M, 13 June	Living in Groups (Chapters 6)	Experiments cont. Video	Experiments cont. project description
T, 14 June	Field trip / Experiment Time		
W, 15 June	LECTURE EXAM I	Experiment/Project time	
R, 16 June	Sexual Selection (Chapter 7)	Video	Project time
F, 17 June	Parental care + Mating (Chapters 8 + 9)	Video Field trip exercise due	Project time
M, 20 June	Social behavior (Chapters 11 + 12)	Altruism (Chapter 13)	Project time
T, 21 June	Communication (Chapter 14)	Video	Project Time
W, 22 June	Penguin presentation /Student led discussions		
R, 23 June	Student Research Presentations	Written reports due	
F, 24 June	LECTURE EXAM II		