

Biology 550 section 2 – Animal Behavior

COURSE INFORMATION

Instructor:

Dr. David Lahti

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Office Hours: Tue 10:45-12, Wed 10-11,
or by appointment

Overview:

This course is a cross between a broad survey and a topical seminar. We will cover all the basics of the scientific study of animal behavior, including general rules and themes (e.g., genes, development, and environment) as well as kinds of behavior (e.g., migration or cooperation). But unlike a typical survey course, we will explore certain topics in greater depth: some are prominent in current research, and others I think might be especially interesting to you. We'll go over these ideas, and lots of examples, in two 75-minute lectures per week (Tues, Thurs 9:30-10:45; in Morrill III, room 203); but as this is an advanced class, I encourage an informal, interactive experience during this time. No formal attendance is taken, but class attendance is the most important aspect of the course.

Readings:

There are three kinds of assigned readings. First, readings of the text, Alcock's *Animal Behavior*, are designed to complement the lectures; however, much of the information presented in lecture is not covered in the text. Textbook readings are best completed just before or immediately after accompanying lectures. Second, occasional handouts and *American Scientist* reviews will provide a more focused introduction to certain areas. Third, one current research article from the primary literature will be assigned each week.

Summary/Response entries:

For each assigned review or research article, each student will write a brief summary or description, and a critical evaluation or reflection. I do this myself for every paper or book I read, and I assign these in all my classes that engage with the literature. These should be in whatever form is most helpful to you-- hard copy or electronic, paragraph or bulleted, etc.

Textbook:

Animal Behavior, 8th edition, by John Alcock

Available at: University Textbook Annex.

(All other readings will be provided in class or on the web page).

Course web page:

<http://bcrc.bio.umass.edu/courses/fall2005/biol/biol550section2/>

Please consult this page for handouts, this syllabus, readings, and other materials.

Exams:

There will be two 75-minute exams during the semester plus a final during the final exam period. The dates of the two mid-term exams are shown in the lecture schedule and will also be announced in class. Each of the exams will consist of multiple choice, short answer, and essay questions. The exams will be graded by the instructor. Exams will emphasize lecture material, but will also draw on assigned readings.

If you must miss an exam because of illness or other serious conflict, please call or send an e-mail message to schedule a make-up as soon as possible. A make-up exam may follow a similar or a different format from the original. Normally only one make-up exam is allowed per student per semester.

Independent field studies:

Two field exercises will be performed individually outside of class. One will be a descriptive observational study, and the other will be a hypothesis-driven experimental test. More information on these will be provided during class.

Grading:

Grades will be based on the two mid-term exams (25% each), the final exam (25%), the summary/response entries (10%), and the field studies (15%).

Grading scale:

93-100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	67-69	D+
80-82	B-	60-66	D

Academic honesty:

I do not expect questions of academic dishonesty to arise; but if an incident of dishonesty is discovered, the consequence is no credit. This decision can be appealed.

Schedule:

Date	Subject	Alcock Reading
Th 9/8	Introduction to behavior and behavioral study	ch.1
Tu 9/13	GENES and environment shape behavior through development	} ch.3
Th 9/15	Genes and ENVIRONMENT shape behavior through development	
Tu 9/20	Genes and environment shape behavior through DEVELOPMENT	
Th 9/22	Behavior and evolutionary history	--
Tu 9/27	Nitty gritty of behavioral control, I	ch.4
Th 9/29	Nitty gritty of behavioral control, II	ch.5
Tu 10/4	Moving around: orientation, migration, habitat selection	ch.8
Th 10/6	EXAM 1	
Tu 10/11	Eating: foraging, predation	ch.7
Th 10/13	Not being eaten: predator avoidance	ch.6
Tu 10/18	Choosing and competing for mates	ch.10
Th 10/20	Mating systems	ch.11
Tu 10/25	Caring for offspring	ch.12
Th 10/27	Social systems	} ch.13
Tu 11/1	Conflict within a species	
Th 11/3	Cooperation among closely related individuals	
Tu 11/8	Cooperation among unrelated individuals	
Th 11/10	EXAM 2	
Tu 11/15	Guest lecture	--
Th 11/17	Guest lecture	--

Tu 11/22	Varieties of learning and almost-learning	--
Th 11/24	(Thanksgiving: no class)	
Tu 11/29	Complex animal communication	ch.2, 9
Th 12/1	Cultural evolution	--
Tu 12/6	Human behavior: the last 6 million years	--
Th 12/8	Human behavior: evolutionary psychology	ch.14
Tu 12/13	Relevance of behavior to ecology and conservation	--
Final exam (to be announced)		