BIO 441 Animal Behavior
Fall 2007

General Course Information

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Office hours: by appointment

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Lecture meeting schedule: Mon, Wed 10:30-11:30, 103 Irving I
Lab meeting schedule: Mon 14:15-17:15 409 Bunnell

Course goal, objectives and description: Animal Behavior is the study of what animals do. The overall goal of this course is to teach you how to use scientific method to study animal behavior. The course focuses on the evolutionary approach – specifically, we’ll learn how animals behave (i.e., the proximate, or mechanistic perspective) and why they behave in a certain way (i.e., the ultimate, or evolutionary perspective). Emphasis of the lecture section will be on general concepts, and during the lab section you will learn how to use these concepts in conducting research in the field of animal behavior. Most of written assignments will be assigned as part of the lab section. By the end of the course you will be able to (A) read and critically evaluate primary literature, (B) design and conduct observational and experimental studies, (C) write and present a scientific report.

The course will start with a review of the scientific method. Then, we will focus on the proximate and ultimate causation in behavior as a foundation for the rest of the course. We’ll then move on to the key principles in behavioral research: (1) the interrelated roles of genetics and environment in the development of behavior, (2) the roles of the nervous system in direct control of behavior, (3) the effects of hormones on behavior, and (4) biological rhythms. This will take us about half of the way through the course. In the second half of the course we’ll use these general principles to study resource acquisition, defense and use. Specifically, we will study the anti-predatory, foraging, and reproductive behaviors, principles of the sexual selection, and diversity of social systems. The course is comparative, and therefore material from a variety of animal taxa will be used to reveal general principles of behavior as well as to illustrate specific behavioral adaptations to particular environments.

Lectures: Lectures may use a variety of media, including computer projection, chalkboard, and video clips. Note that a substantial amount of what happens in class will not be amenable to being placed on the website (see below), so don’t expect to be able to use notes posted to the website as a replacement for missed lectures. Note also that the exams will emphasize (but not be limited to) material covered in lectures.

Readings: Assigned readings from primary literature and the textbook (see below) provide background and context for lectures and will cover some of the same specific examples that will be used in lectures. Consequently it will help if you do the reading prior to the lectures. Material in the assigned text readings that isn’t covered in lecture will be fair game for exam questions, but as noted above you can expect the vast majority of exam material to be from what is covered in lecture.

TEXTS:


BEHAVIORAL JOURNALS (Primary literature sources)

Below are lists of scientific journals that publish research articles and reviews in animal behavior. The first list includes the behavior-specific journals and the second list includes those journals that are not specifically behavioral in scope but do publish behavioral articles from time to time.


**Secondary journals in Animal Behavior:** More general journals that frequently publish articles in animal behavior.


**Style guides** (a sampling):


Supplemental texts or other readings may be placed on the Blackboard.

**Blackboard information:** We will make use of Blackboard to get information to you regarding homework assignments, scheduling review sessions, modifications to regular office hours, etc. Lecture notes, lab notes, and old exams will be placed on Blackboard. Please make certain you have access to the Biol 441 Blackboard site. Please check it frequently to be sure you don’t miss something important. You can get access to the website through:

http://classes.uaf.edu

By now, you should be able to obtain this document (General Course Information) and the syllabus with projected lecture and reading schedules from it right away. Lecture outlines will also be posted to the Blackboard, but generally not until after a given lecture. As noted above, these will not be so detailed as to be useful as replacements for missed lectures.

**Tentative COURSE GRADING**
You will be evaluated on the basis of your performance on three exams (2 midterms and a final), in the lab section of the course, and participation in class.

Midterm 1: Covers **PART 1** of the course
Midterm 2: Covers **PART 2** of the course
Final exam: Focus primarily on **PART 3**, but will also include basic principles of the entire course (which you’ll have to know to understand Part 3)

Contribution of each part of the course to your final grade will be as follows:

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<thead>
<tr>
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<th>Contribution</th>
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<tbody>
<tr>
<td><strong>Lecture section</strong></td>
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<tr>
<td>Exam 1:</td>
<td>10%</td>
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<tr>
<td>Exam 2:</td>
<td>15%</td>
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<tr>
<td>Final exam:</td>
<td>20%</td>
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<tr>
<td>Lab section:</td>
<td>45%</td>
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<tr>
<td>Class participation:</td>
<td>10%</td>
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Notes

The course is written and oral intensive, your attendance of lectures and lab sessions is mandatory.

Make-up exams will be allowed ONLY for an excused absence with my approval (I will need official verification of illness or family emergency) and they will be given in a different format.

Exams will test factual knowledge as well as an ability to synthesize and integrate information. The exams will consist of short answers (one to a few sentences). Examples of each exam (questions with answers) will be handed out before the midterms and final. Midterm II and Final will not be comprehensive, but could include questions from previous examination(s).

Class participation - your questions and comments are appreciated in lectures and labs. There will be short formal discussions in several lecture and lab periods. You should write down any questions you have while doing the assigned readings, and see that your questions are addressed in class.

If you would like to request academic accommodations due to a disability, please contact Disabled Student Services, (2nd fl. Whitaker) fyds@uaf.edu, 474-7043. If you have a letter from Disabled Student Services indicating you have a disability that requires academic accommodations, please present the letter to us so we can discuss the accommodations you might need for class.

UAF Honor Code – everybody should be in good standing

**Grading:** Final grades will be assigned based on percentages of total points earned:
90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; F<60%. At their discretion, the instructors may reduce one or more of these percentages when assigning final grades.

**Final exam. Monday December 17, 10:15am – 12:15pm, 103 Irving I.**

In class written assignment
1. Ask up to 4 questions you’d like to be addressed in Animal Behavior
2. Write a short essay on Altruism in humans. Does it occur? Why?