Biology 132: Introduction to Animal Behavior/ Fall 2015

Instructor:  Dr. Debbie Schlenoff  
schlenof@uoregon.edu  
Office Hrs: Mondays at 1:30 and by appointment 15A Klamath

Graduate Teaching Fellows:
Sarah Casper  casper@uoregon.edu  
Office Hr: Wednesday at 11:00 in SGR 325  
Teresa (Reese) Findley  tfindley@uoregon.edu  
Office Hr: Friday at 9am in HUE 212  
Lisa May  lmay@uoregon.edu  
Office Hr: Thursdays at 4pm in LISB 229

Undergraduate assistant (BULA):  
Stefani Aleman  stefani@uoregon.edu

Course Description
We will explore behaviors found in a variety of animals, investigate what functions they might serve, and use the concept of natural selection to understand their evolution. Many examples will be used to illustrate concepts in animal behavior and to develop an appreciation for the many interesting things that animals do to survive and reproduce. Among the topics in animal behavior that we will discuss are the influences of genetics and learning; strategies for migration, foraging and defending against predators; reproductive strategies to attract a mate, mating systems and parental behavior; communication, dynamics of social groups, cooperative behavior, and social cognition. We will also examine the methods with which scientists study these behaviors and understand the study of animal behavior as an ongoing process rather than just a set of facts. By doing this, you will better understand how science works and become comfortable evaluating scientific information; a skill required by all people whether or not they pursue a career in the sciences.

Course Objectives:
- Be able to explain observed behaviors based on the process of natural selection.
- Implement the process of scientific inquiry by making observations, generating questions and hypotheses, and collecting data relevant to the hypothesis.
- Communicate in the format of a scientific paper including the use of graphs to display data.
- Be comfortable reading and evaluating a scientific paper from a peer-reviewed source.
- Utilize library data bases to search for and identify reputable sources.
- Identify examples of the diversity of strategies employed by several species of animals.
- Describe influences on behavior including environmental and social effects.
- Apply concepts in animal behavior to novel situations.
- Examine how we think about other animals in relation to ourselves.

Recommended Text:  Goodenough, J.; McGuire, B. and Wallace, R.; Perspectives on Animal Behavior  
It would be helpful to read (or at least skim) the assigned chapters before coming to class and to then read more carefully those parts relevant to lecture, assignments, and discussion.

Assigned readings and links to videos will be posted on Canvas. You are responsible for reviewing all assigned readings and videos. Come to class prepared to discuss and write about them.
Course Format

Lectures (Monday and Wednesday 4:00-5:20 pm, 177 LA)
You will be responsible for all material presented in lecture.
The course schedule is tentative and subject to change; adjustments will be announced in class.
Lecture outlines containing the text of the PowerPoint slides are available on Canvas. Most students have found it useful to print out the outlines before class to take notes on without having to try and write down everything on the slide. Please keep in mind that these are merely outlines for your convenience in taking and organizing notes. They are not meant to serve as a complete set of lecture notes for studying for the exams. There is a strong positive correlation between attendance in lecture and class grades.
Occasionally, there are group and writing activities that occur during lecture. It is our expectation that you participate in these activities. Your active involvement promotes understanding of the material and preparation for exam questions. I appreciate feedback on the lectures. Questions are welcome and encouraged during and after lecture, during office hours, and via e-mail.

Discussion Sections (Tuesdays, 130 HUE)
Participation in discussion sections is a required part of this class and will count toward your final grade. Much of discussion will be devoted to developing and preparing to research and write a project paper. In addition, hands-on activities will allow us to ask questions about animal behavior and design experiments to search for answers. All assignments associated with the project are due in discussion section on the date noted in the syllabus. Students are expected to attend the section in which they are registered.

Grading Evaluation

19% Midterm Exam 1
20% Midterm Exam 2
20% Final Exam
20% Term Project Paper
6% Question Sets (Three sets at 2% each; submit through Blackboard)
9% Discussion Section Assignments and Participation (includes project and reading-related assignments)
6% Lecture Participation Clicker Questions

Exams will include material from the lectures, discussion, video clips, readings, and assignments. The structure of the two Midterm Exams will be mixed format (multiple choice, short answer, short essay). Details will be announced in class. The Final Exam will be all multiple choice. Scantrons will be handed out in class; please bring a #2 pencil to all exams.

Make-up Exam Policy: Because this is such a large course, make-ups are NOT administered except in the case of a severe medical condition or other extreme documentable emergency. It is your responsibility to contact the instructor as soon as possible and to provide documentation.

Question sets get you thinking about the material and allow you to focus and organize your studies. There are three questions sets each corresponding to one of the three exams. They are good preparation for taking the exam. Consider them to be practice quizzes. The answers to the Question Sets will be posted on Canvas after the due date. We recommend you read through these in preparation for the exams. Question sets will be posted and submitted through Canvas by the due date noted in the syllabus. Enter your answers in the textbox that appears when you open the assignment link. You may discuss the material with others but please submit your answers in your own words. Copying and pasting from the notes or shared documents are a form of plagiarism and will not do much to promote understanding or retention of the material.
**Project** The Project will involve forming an hypothesis and testing predictions about animals that are easily observed outside of class. Assignments pertaining to the project will be due in discussion section (see below for due dates). A Project Proposal will be due in section and will give you an opportunity to discuss your ideas with your instructors. We will explore ways to find reputable scientific sources and how to write up a scientific research paper. The final project paper (hard copy) will be due in Discussion Section on Week 9 on 11/24. An electronic copy will also be submitted through Canvas. Information about the project is posted in Files on Canvas. Please read these documents carefully and ask if you have any questions.

**Assignments** include project proposals, raw data presentation, and the term paper draft for peer-review, as well as answering reading questions for assigned readings/videos. Readings should be done before the due date so you are prepared to discuss them in discussion section. You will either answer the posted questions and turn them in or answer questions in a general quiz format in section. To receive credit for assignments, they must be turned in as hard copies in discussion section. (The exception is electronic submission of Question Sets as stated above.)

**Clickers** (Personal Response Systems) THESE ARE PART OF YOUR GRADE.

i-Clickers will be used in almost every class to encourage participation and to provide valuable feedback to instructors and students. Each student is expected to purchase a clicker for use in this class. The i-clicker 1 is sufficient. You are responsible for bringing your clicker remote to each lecture. You will need to register your clicker remote on the Canvas web page by the second week of classes. (If you’ve already registered your clicker this term for another class, then you don’t need to register it again.)

**Professional Conduct:**

You are expected to do your own work on homework assignments, projects, and exams. When writing up your homework assignments and papers, you are expected to paraphrase (use your own words). When writing up your project papers, give credit to the sources of your information. **Plagiarism will not be tolerated.**

You are encouraged to discuss ideas with each other and to study together, but don’t copy someone else’s work, or allow them to copy yours.

Similarly, it is a breach of university regulations to use an iclicker registered to someone else or to allow someone else to use an iclicker registered to you.

Academic dishonesty is a serious offense. Please refer to the University of Oregon Student Conduct Code by which all students are expected to abide.

**Classroom Etiquette:**

1. Please arrive on time.
2. Please do NOT use cellphones, laptops, or other electronic devices in the classroom.
3. Please don't leave early. This is very disruptive to everyone. In turn, I will not lecture beyond 5:20. If you have an unusual circumstance and must leave early, then please sit near the exit so you can leave unobtrusively. A break from lecture to engage in small group work does not signal the end of lecture.
4. Please refrain from engaging in activities that could be distracting to your fellow students.

We ask that you not converse with your neighbors when someone else is talking (instructor or classmate) as this interferes with the ability of other students to learn.

Please do not pack up your things early as this makes it difficult for students around you to hear the end of the lecture.

If you are having a problem that interferes with your ability to do the work in this class, please tell us about it as soon as you can.
The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in barriers to your participation. You may also wish to contact the Accessible Education Center in 164 Oregon Hall at 346-1155 or uoaecc@uoregon.edu

TENTATIVE COURSE SCHEDULE: The course schedule below is tentative and subject to change. Additional information will be provided in class or via e-mail and Canvas.

* See Canvas: Course Documents for instructions on assignments. Each assignment contributes points to your overall grade. Submit to your GTF in discussion section or on Canvas as indicated.

** Question Sets posted and submitted on Canvas: Course Document.

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<tr>
<th>WK</th>
<th>Lecture Topics and Discussion Sections</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>1</td>
<td>9/28 The Study of Animal Behavior. What kinds of questions help us understand behavior and how do we design ways to get answers? 9/30 Natural Selection and Adaptation. How do we explain the evolution of animal behavior? Discussion Sections 9/29: Introduction to project and hypothesis testing.</td>
<td>Read syllabus and project information on Canvas. Register your clicker.</td>
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<td>2</td>
<td>10/5 Genetic Analysis of Behavior. Are there ways to determine whether some behaviors have a genetic basis? 10/7 Types of Learning. How does learning contribute to success in animals? What is the variety of types of learning that we can examine? Discussion Sections 10/6: Meet for Duck Lab at Millrace (corner of Onyx across Franklin Blvd.)</td>
<td>Assigned reading (whales) on Canvas * Read about your proposed study animal. Make observations.</td>
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<td>5</td>
<td>10/26 Anti-predator Strategies: How to keep from being someone’s dinner. 10/28 Sexual Selection. What adaptations have arisen in animals to attract a mate and compete with rivals? Discussion Sections 10/27. Fruit Fly maze.</td>
<td>Assigned reading (ants) on Canvas.</td>
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<td><strong>Question Set 2 Due Thursday, 11/5 before 11:00 pm</strong></td>
<td>Discussion Sections 11/3: Data and graphs.</td>
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<td><strong>Question Set 2 Due Thursday, 11/5 before 11:00 pm</strong></td>
<td><strong>Reading assignment on animal welfare due. Come prepared to discuss.</strong></td>
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<td>7</td>
<td>11/9 Social Groups: What are the Benefits, Costs, and Dynamics of living in social groups?</td>
<td><em>Bring to section your term paper draft. Must include background info from at least one peer-reviewed reference and a data figure.</em></td>
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<td>11/11 EXAM 2</td>
<td><strong>Question Set 3 Due before Thursday, 12/3, 11:00 pm.</strong></td>
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<td>Discussion Sections 11/10: Discussion on animal welfare issues: Animals in industry, research and entertainment in Section</td>
<td><strong>PROJECT PAPER DUE</strong></td>
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<td>11/18 Conflict and cooperation. Under what circumstances might individuals in a group cooperate?</td>
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<td>Discussion Sections 11/17: Term paper peer review.</td>
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<td>8</td>
<td>11/23 Social Groups: Awareness and Social Intelligence. How aware are animals of others in their groups? How aware are they of their own knowledge?</td>
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<td>11/25: Video/reading assignment in lieu of Lecture (Thanksgiving holiday)</td>
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<td>11/24: PROJECT PRESENTATIONS</td>
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<td>9</td>
<td>11/30 The Human Animal: Evolutionary psychology. How do we examine human behavior from an evolutionary perspective?</td>
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<td>12/2 Communication.</td>
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<td>Discussion Sections 12/1 Review</td>
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<td><strong>Question Set 3 Due before Thursday, 12/3, 11:00 pm.</strong></td>
<td><strong>FINAL EXAM: 14:45 (2:45 pm) Mon, December 7</strong></td>
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