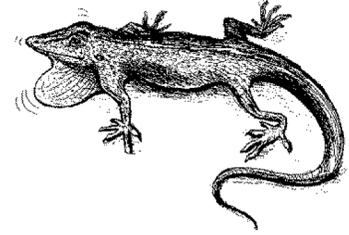


ZOOL 3600 ANIMAL BEHAVIOR
Spring 2019



Instructor: Dr. Marina M. Gerson

Office: N-272

Office Hours: Mon 12:30-1pm, Tues & Thurs. 10:45-noon, and by appt.

Contact Information: mgerson@csustan.edu or (209) 664-6547

Text & Materials: Dugatkin, L.A. 2009. Principles of Animal Behavior, 3rd ed.;

iClicker (Used is fine. We will do roll call registration in class. Do not pay to register.); small bound notebook

Blackboard site? Yes! Login at blackboard.csustan.edu for course documents and links to helpful resources.

COURSE DESCRIPTION AND OBJECTIVES

This course introduces the study of animal behavior from a biological perspective, providing theoretical background and key terminology to students pursuing careers in areas such as wildlife biology, conservation, zoology, and veterinary medicine. The course includes a general survey of forms of animal behavior across animal groups and in a variety of natural contexts (including social, foraging, antipredator, and habitat selection and use). Additionally, students will learn about modern methods of study and current research.

Course Pre-requisite: Passing grades in BIOL 1050 & BIOL 1150, or equivalent courses at another institution.

Learning Objectives

- Gain knowledge of the terms and major topics of study in the biological field of animal behavior.
- Gain an appreciation for the complexity of behaviors including discerning ultimate and proximal causes.
- Understand the evolutionary and ecological factors behind behavioral expression.
- Become familiar with modern methodology and current topics in the study of animal behavior.

Course Requirements

- Through course assignments and activities, apply knowledge of the complex nature of behavior and the evolutionary and practical causes of behavioral expression.
- Demonstrate understanding of modern methods and topics of biological behavioral studies through classroom participation and activities.
- Demonstrate retention and application of the theories, terms, and topics central to the study of animal behavior, covering the four Learning Objectives, on exams and assignments.

EXPECTATIONS OF STUDENTS

- **Maintain your academic integrity.** *Your integrity is your most valuable asset as a student* and in your future career as an educated person. In line with this, it is the policy of the Department of Biological Sciences that anyone caught *cheating* or *plagiarizing* will receive a grade of F for the course. I reserve the right to request any student suspected of cheating to take a second, different exam on the material. Protect yourself by making your integrity obvious.
- **Engage the course material** by arriving prepared for class, participating respectfully, reading the text, and being observant for animal behavior outside of class.



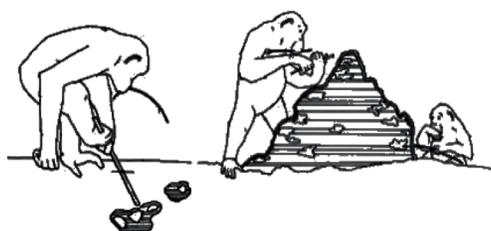
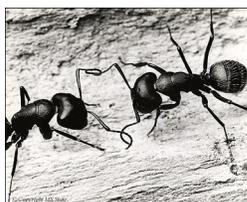
- **Be respectful of others** by **arriving on time**, **giving your attention** to whoever is presenting, listening to the ideas of your classmates, **turning off cell phones**, and generally being polite. This also means **no text-messaging** (yes, the person at the front of the room *can* tell what you are doing) and **no internet surfing** (it's distracting to those sitting around you).
- Students are expected to **take exams** on days and times scheduled. If you have a legitimate excuse to miss, I need to know the reason, in writing, before the exam date. If you have an emergency, you must let me know of the emergency as soon as you can. I will determine the appropriateness of taking the missed exam.

EXPECTATIONS OF THE INSTRUCTOR

- Same as those for students, in terms of **engagement** in the course, and **respect** for participants. I will do my best to **protect your privacy** and **maintain an environment** in which you can learn.
- Be **open to feedback** on the course and be flexible in order to make appropriate changes to meet student needs.
- Be **fair and consistent in assessment** of student learning.
- Be **available to students** outside of class time to answer questions and discuss class material.

Week	Lecture Topic(s)	Ch.	Reading Quiz
Jan 25	Syllabus, Course Introduction	-	--
Jan 28*, Jan 30, Feb 1**	Introduction to the field of Animal Behavior Behavioral Ecology: the Evolution of Behavior Who? What? Where? When? How? vs. Why? in behavior	1 2	*Read <i>Interview with E.O. Wilson</i> **Read <i>Interview with Alan Grafen</i>
Feb 4, 6* OJ, Feb 8	Who? What? Where? When? How? vs. Why? in behavior	2 3	*Read <i>Interview with Geoffrey Hill</i>
Feb 11*, 13, 15**	Molecular Genetics & Development Learning	4 5	*Read <i>Interview with Gene Robinson</i> **Read <i>Interview with Sara Shettleworth</i>
Feb 18, 20 OJ, Feb 22	Learning cont. Catch-up & Review	5 1-5	--
Feb 25, Feb 27*, Mar 1	Midterm 1 Change faster than evolution: cultural transmission of behavior	1-5 6	*Read <i>Interview with Cecilia Heyes</i>
Mar 4*, 6 OJ, Mar 8**	Sexual Selection Mating Systems ABP Group formation	7 8	*Read <i>Interview with Anne Houde</i> **Read <i>Interview with Nick Davies</i>
Mar 11*, Mar 13, 15** ABP	Family matters – Kinship Theory Working together to maximize fitness: Cooperation	9 10	*Read <i>Interview with Francis Ratnieks</i> **Read <i>Interview with Hudson Kern Reeve</i>
Mar 18, 20, 22	Break – No Classes – Work on your behavior project!?		
Mar 25, 27* OJ, Mar 29	Cooperation, Finding food	11	*Read <i>Interview with John Krebs</i>
Apr 1 = CC Holiday Apr 3*, Apr 5 ABP	Cesar Chavez Holiday – no classes Avoiding <i>becoming</i> food: Antipredator behavior	12	*Read <i>Interview with Anne Magurran</i>
Apr 8, 10 OJ, Apr 12	Catch-up Midterm 2	6-12	--
Apr 15*, 17**, Apr 19	Communication Choosing where to live and when Presentations	13 14	*Read <i>Interview with Rufus Johnstone</i> **Read <i>Interview with Judy Stamps</i>
Apr 22, 24* OJ, Apr 26	Choosing where to live and when <i>cont.</i> Agonistic encounters: aggression Presentations	15	*Read <i>Interview with Karen Hollis</i>
Apr 29*, May 1, May 3	Agonistic encounters <i>cont.</i> Just for fun? Play! Presentations	16	*Read <i>Interview with Marc Bekoff</i>
May 6*, 8, May 10	Animal personalities: beyond anecdote Presentations	17	*Read <i>Interview with Sam Gosling</i>
May 13, 15	Catch up & Review	1-17	--
Fri. May 17	Final Exam 11:15-1:15 (bring a quiet snack, if you need one)	1-17	--

OJ Observation Journal Due. ABP Animal Behavior Project Component is due.



ASSESSMENT METHODS, GRADES, GRADING, AND POLICIES

In an upper division course for the Biology major, it is important for students to demonstrate both mastery of factual content and the ability to synthesize ideas based on the theories discussed in the class. Your grade will be based on class attendance (clicker points), completion of quizzes, exams, and a animal behavior research project.

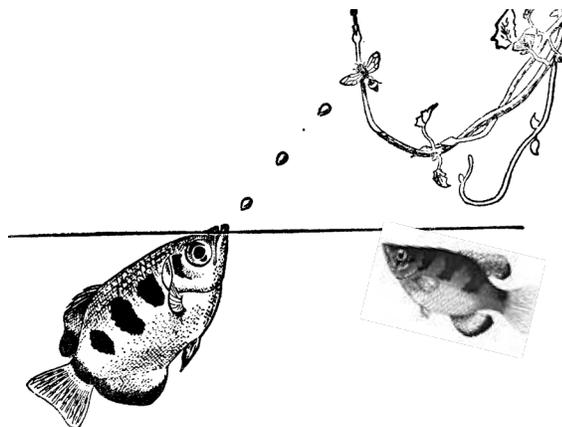
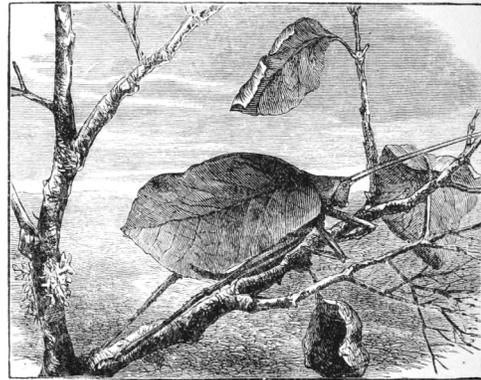
Any assignment of any kind should be turned in on the day and time it is due. However, you may turn in one late assignment in the very next class period over the course of the semester. Any other late work will be penalized by 10% per 24-hour period.

We have limited time available for Project Presentations; thus, your Project Presentation should be given on the scheduled date unless you have made an arrangement with me in advance. Following the return of any graded assignment or exam, you have *7 days in which to dispute any grade discrepancies*; please check your score against the BlackBoard record right away. To dispute the scoring of an assignment, please bring the assignment and supporting information showing why you deserved a different grade to my office, where we can discuss the issue privately.

Special circumstances: I understand that unusual circumstances can temporarily alter your availability for our class. If you know ahead of time that you will have a conflict on an important day, please get in touch with me as soon as possible. If an unforeseen incident causes you to miss an exam or presentation, get in touch with me *as soon as your circumstances allow*.

I am committed to supporting students with different learning styles and needs. If there is something in particular that I can do support your learning needs, please meet with me as soon as possible so we can arrange the accommodations that will foster your success in this course.

ASSIGNMENT	POINTS
Syllabus exercise	5
Midterm 1	175
Midterm 2	200
Project: Progress check up	10
Project: Observation journal	100
Project: Class presentation	200
Project: Three exam questions	10
Participation & Quizzes (clicker points)	50
Comprehensive Final Exam	250
TOTAL POSSIBLE POINTS	1,000



Point Range	Grade Earned
930-1000	A
900-929	A-
870-899	B+
830-869	B
800-829	B-
770-799	C+
730-769	C
700-729	C-
670-699	D+
630-669	D
600-629	D-
<600	F

TUTORING ON CAMPUS – Free tutoring and writing help services are available to assist you in most disciplines, including in biology! Library 112; Phone (209) 667-3642; Web <http://www.csustan.edu/Tutoring>

CAMPUS COUNSELING SERVICES – Overwhelmed by the stress of juggling classes and your home life? Our campus offers **excellent** counseling services to help support you! Library 185; Phone (209) 667-3381; Web <http://www.csustan.edu/Counseling/>

STUDENT HEALTH CENTER – You have already paid for access to health care on campus. Services include: birth control, flu shots, immunizations, pharmacy, check-ups, HIV testing, TB tests, and *doctor's notes for when you are sick!* Phone (209) 667-3396; Web <http://healthcenter.csustan.edu>

LIBRARY – Our reference librarians enjoy helping you to find out all kinds of things! You can get help in person at the Reference Desk, or by phone or chat (scan left side of library main webpage). Phone (209) 667-3233; Web <http://library.csustan.edu>

ASSIGNMENT INFORMATION

Clicker Points – Your participation with your clicker will help me to gauge the level at which I need to cover each topic and helps to keep you awake and engaged, too! It also helps to keep you accountable for being prepared for class. I know that sometimes things come up. Don't worry: you can miss three "regular" days without penalty. *Clicker days begin on February 4.* **On Clicker Quiz Days, ½ of your clicker points come from answering correctly on the quiz.**

Exams – In the sciences, objective exams are one of the most practical tools for assessment of individual student learning. A well-trained scientist is more than a memory-bank of facts, but can also apply her/his knowledge to solve new problems.

Midterm 1 (value 175 pts.) and **Midterm 2** (value 200 pts.)

- Question types include: very short answer, fill in the blank, draw a diagram or graph, complete a table, give an example, T/F (if F, why?)

Comprehensive Final Exam (value 250 pts.)

- Format will be similar to that seen on the midterms, but will also include questions from student presentations.
- 150 points will come from the new material.
- 100 points will be comprehensive, drawing on information learned over the course of the entire semester.

Observation Notebook (DUE: every other week, value 100 pts.): The Observation Notebook is an Individual Project.

Being a good scientist requires being a good observer. You will keep a journal of animal behavior that you observe out and about during your day-to-day routine. You will start your entries right away, and you will turn in your notebook every other week. Your observations will likely lead you to your Animal Behavior Project idea.

- Runs January 25 through April 24; Four entries per week = eight entries per two-week period.
- Turn in at the beginning of class on the due dates; receive back at the beginning of class the next class period.
- Graded on a scale of 0-3 (0=didn't turn in, 1=turned in partially complete, 2=complete, 3=*insightful, meaningful & complete* entries).

Animal Behavior Project – How can a scientist really know about animal behavior without performing any research? Over the course of the semester you will complete a short scientific observational study of a focal species. You will work in groups of 4 students to come up with a plan, execute your study, and report your results in the format of an scientific oral presentation during the last four weeks of the semester. **Note: the majority of vertebrate animals are protected by law in California. Do not plan to handle or disrupt vertebrate animals unless you happen to have the appropriate legal permit.**

Project Commitment (DUE ONLINE: March 15; no points)

- 1-5 typed paragraphs roughly outlining what you plan to study.
- Completed table of group members, contact information, and roles of each member.
- List at least one primary literature article that reports on a study similar to the one your group proposes.

Progress Check (DUE April 5 ONLINE: value 10 pts.)

- 1-2 paragraphs outlining your research goal(s).
- Timeline showing plan of **what** will happen **when** and **who** will do it, in order for your project to be completed.
- Updated table of group members, contact information, and current roles of each member.
- Minimum list of three primary literature articles that report on a study similar to the one your group is working on.

Three written questions & complete answers (DUE ONLINE: 24 hours before your presentation; value 10 pts.)

- Submit by e-mail to me **by noon on the Thursday prior** to your Friday presentation.
- Each question should be similar in format to those seen on the first two exams.
- You should include at least one example of a complete answer for *each question*.
- Questions will be posted on BlackBoard by the end of the day on Thursday.

Oral Presentation (DUE: varies - Apr 19, Apr 26, May 3, May 10; value 200 pts.)

- This will be a scientific style report of the results of your study and how your work fits into a broader scientific context.
- Presentations should be concise, but should include: Introduction (background information and purpose of study), Methods, Results, and Discussion (including how your conclusions fit in with other studies).
- Presentations will be **no more than fifteen minutes** long. Please expect an update on time limits.
- You will need to include at least two primary literature articles, as background information or to place your study in a wider context in the conclusions.
- Your last slide **must** include your final list of group members and the roles each fulfilled to complete the ABP.
- I will need a hard copy print-out or a PPTX version of your presentation submitted to me.

