

Biology 354, Fall 2014

Animal Behavior

Text: Dugatkin, Lee Alan. 2013. Principles of Animal Behavior, Third Edition. W.W. Norton & Company, New York. Available in Paperback (\$92), looseleaf (\$64), and e-book (\$38.35). Note that if you get a hard copy you also get e-access to the book automatically.

Additional readings: Breed, M.D. and Moore, J. Eds. 2010. The Encyclopedia of Animal Behavior. Elsevier Science, Academic Press. Select chapters from this excellent resource will accompany a few "Special Topics" that are not included in your book. This is available online from the ISU Library and links to each assigned chapter are available on reserve at the ISU Library.

You are responsible for all readings and anything from these readings are fair game for inclusion in tests, quizzes, and in-class clicker questions.

Description of the Course: This course will explore and examine the fascinating world of animal behavior. Modern animal behavior is a very integrative and multidisciplinary endeavor. Thus, we will touch on many topics relating to both the evolution of behavior and its underlying mechanistic basis. Through lectures, readings, videos, group activities and discussions, and an optional laboratory, you will have a chance to learn about a variety of topics in the field of animal behavior. We will start with the basics, first reviewing the scientific method and then talking about different approaches to studying animal behavior. Throughout the course, we will take an evolutionary perspective, considering both the evolutionary history of a behavior and its adaptive value. We will review some of the basic mechanisms of behavior including genetics, hormones, and neurobiology. We will discuss the role of learning and culture. From there, we will talk about many different types of animal behavior including foraging, mating, aggression, and social behavior. We will explore the types of questions animal behaviorists ask, the methods they use to study animal behavior, the types of data they collect, and the ways they interpret their data to gain a better understanding of why and how animals behave the way they do. We will heavily use examples from vertebrate animals and invertebrate animals alike, and occasionally even talk about human behavior. After all, we are animals, too!

Course goals and learning objectives

- To understand the scientific method based on hypothesis testing and how this is applied to the study of animal behavior
- To be able to critically interpret data (such as graphs and charts) from behavioral experiments and determine how they support or do not support a given hypothesis
- To be familiar with many of the most important current theories that explain the occurrence of certain forms of behavior
- To understand the distinction between proximate and ultimate questions about the biological basis of behavior
- To understand the various ways in which natural selection shapes behavior (at the level of genes, individuals, families, and groups)
- To appreciate that complex behavior has evolved in many groups of animals, from invertebrates to vertebrates, and that human behavior also has a biological basis

Attendance and Clickers: Attendance for this class is mandatory. Clickers are required for this class. We will have clicker questions during most class periods, which are not graded but you will get attendance points for participating in clicker questions. Bringing any other clicker besides your own is not allowed and will result in 0 credit on clicker questions. I will call on randomly selected students to explain answers to clicker questions on a regular basis, so make sure you are there to represent your own clicker! Bring your clicker to every class!

Online Resources:

Reserves: The additional readings from the Encyclopedia of Animal Behavior can be found on reserve at the following url, then searching for BIOL 354: <http://www.lib.iastate.edu/courses-startform/6176>

Blackboard Learn resources: Blackboard Learn will be used to post the syllabus, video quizzes, assignments for readings, and grades for the course. Blackboard will also be the main resource for communication outside of class. You may send me messages using the “messages” tool. The lecture powerpoint presentations will be available on Blackboard Learn; these will sometimes be made available in advance.

Note that even if the notes are available in advance some changes may be made after I upload the files. Students will be able to use their user ID and password to access information in Blackboard Learn.

Grading: Your final grade in the course will be determined by using a 90/80/70/60 scale, with modification as needed to accommodate natural breaks in the point distribution.

Adjustments always work in the student’s favor (90 is always some form of A; 89 might equal an A, A- or B+). Pluses and minuses will be based on natural breaks in the distribution. There will be no extra credit.

Your grade will be based on the following point allocations:

| THING | POINTS PER | POINTS TOTAL |
|---------------------------------------|---------------|--------------|
| 3 Exams * | 50 | 150 |
| 10 At home video quizzes ** | 5 | 50 |
| Approx. 40 In class clicker questions | Sliding scale | 100 |
| Cumulative Final Exam | 100 | 100 |
| GRAND TOTAL | | 400 |

Exams: Exams will be held during regular class time in our regular classroom. They will be multiple choice, matching, and true-false questions and will use scantron forms. Exam questions will draw heavily from the lectures, but all of the textbook readings and additional readings are also fair game. You will have 50 minutes to complete each exam. Since you can drop one exam, there will be no make up exams. * There will be 4 exams, you can drop your lowest.

Quizzes: Quizzes will be must be completed through BlackBoard, at any time prior to the due date. Due dates indicate that the quiz must be submitted by midnight on the date indicated. Quizzes will be due every Friday except weeks when we have exams on Fridays, but including weeks when we have Wednesday or Monday exams. I suggest doing the reading and attending class before attempting to take quizzes. The quizzes will cover material from lectures and readings up to and including the quiz due date, and will often involve watching videos (with accompanying text information) and answering questions about them, which may contain material not in your textbook.

Quizzes will cover 1) material that is covered in class, 2) material from the readings, and 3) material from neither that is part of the video interpretation questions. You CAN use your book to assist in answering the questions. **There will be 12 quizzes, you can drop your two lowest.

In class clicker questions: Clicker questions during lectures will be unannounced throughout the semester. These are not graded, they are participation points. If you answer, you will get credit. I will use the answers to help guide the lectures and clear up misunderstandings about the material. There will be no make-ups for clicker questions. Here’s how you can earn points for clicker questions: participate in 75% or more of the questions and get 100 points, 50-75% = 75 points, 25-50% = 50 points and <25% = 25 points.

Final Exam: The final exam will last 120 minutes and will occur during finals week in our regular classroom. It will be cumulative.

General Course Policies and Etiquette:

1. **Be punctual.** This class is scheduled from 10:00 am to 10:50 am. We will begin promptly and will generally go for the entire 50 minutes. I expect you to be in your seats, awake, and ready to begin at 10:00 am, and for you to give me your undivided attention for the entire time. This means no phone calls, texting, rustling of papers, packing up early, etc.!

2. **Be considerate to your classmates.** Students should refrain from unnecessary use of electronic devices, chattering, whispering, note-passing, snoring (I hope not!) etc. Any student whose behavior is distracting to me or to the class will be asked to leave.

Academic Dishonesty: The class will follow [Iowa State University's policy on academic dishonesty](#). Anyone suspected of academic dishonesty will be reported to the Dean of Students Office.

Disability Accommodation: Iowa State University complies with the Americans with Disabilities Act and Sect 504 of the Rehabilitation Act. If you have a disability and anticipate needing accommodations in this course, please contact the instructor to set up a meeting within the first two weeks of the semester or as soon as you become aware of your need. Before meeting with the instructor, you will need to obtain a SAAR form with recommendations for accommodations from the [Disability Resources Office](#), located in Room 1076 on the main floor of the Student Services Building. Their telephone number is 515-294-7220 or email disabilityresources@iastate.edu. Retroactive requests for accommodations will not be honored.

Dead Week: This class follows the Iowa State University Dead Week policy as noted in [section 10.6.4 of the Faculty Handbook](#). No course assignments shall be due on the Dead Week and most course assignments except the final project will be due before the Dead Week. The final project is due by noon on the day of the final exam.

Harassment and Discrimination: Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, [Student Assistance](#) at 515-294-1020 or email dso-sas@iastate.edu, or the [Office of Equal Opportunity and Compliance](#) at 515-294-7612.

Religious Accommodation: If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the [Dean of Students Office](#) or the [Office of Equal Opportunity and Compliance](#).

Contact Information: If you are experiencing, or have experienced, a problem with any of the above issues, email academicissues@iastate.edu.