ANIMAL BEHAVIOR: BIOL 480
Mon & Wed 9:00 AM – 12:00 PM
Summer 2016 – Building: Math & Psych, Room 104

Instructors: Dr. Karan Odom Email: kodom1@umbc.edu
Office: Biology 403 (back room) Phone: 410-455-1704
Office hours: Mondays and Wednesdays 12-12:30pm, or by appointment

Textbook: No formal textbook. On reserve at the library; most lecture material comes from:
Goodenough, McGuire, & Jakob, Perspectives on Animal Behavior, 3rd edition
I may also use *Alcock. 2013. Animal Behavior: An Evolutionary Approach. 10th edition*.
I may post selected readings or chapters from either textbook on Blackboard.

Web-based Tools

There will be a blackboard page associated with this course. There you will find information related to the course, discussion and reading materials, your grades, and special announcements and links. Please check the page often.

Office Hours

If you have questions about the lecture, reading material, or course work, feel free to talk to me during office hours or arrange a mutually convenient time to discuss course material. While some subjects covered may be challenging, I don't want anyone to be intimidated. I am available to help you with the material.

Overview

This course will explore the general themes and important questions in the field of animal behavior. We will cover subjects that examine how and why non-human animals interact the way they do with each other and with their environment. Topics will include the underlying genetics of behavior, behavioral development and learning, sensory perception and animal communication, habitat selection, foraging, sexual selection and mating systems, and ecological aspects of social behavior, among others. This is a quantitative and writing intensive course. BIOL 142 is a pre-requisite, and at least a passing familiarity with statistics and mathematics is assumed.

Course Policies

* Come to class on time and be ready to start when class begins
* Be sure to read related material for lecture or discussions **before** class
* Ask questions and discuss results and observations with other students. Group discussion promotes learning. Be an active learner - participate fully in lecture and discussion activities and exercises. Do not be content to let others in the group do the work for you.
* **Turn off your cell phones in class**. Be considerate of your classmates.
* We encourage minimal computer use during lecture (note taking, assignments, etc. only -- no non course-related activity).

Student Learning Objectives

1) Exhibit knowledge of common biological terms and principles used in the study of animal behavior
2) Show comprehension of behavioral terms and principles via interpretation of material in lecture
3) Apply studied behavioral terms and principles to new situations
4) Analyze behavioral principles based on the ability to distinguish between facts and inferences
5) Synthesize general principles from different sub-fields of behavior to solve problems by creative thinking
6) Evaluate behavioral principles by reading and discussing behavioral literature
7) Gain skills in designing, implementing, and analyzing the results of behavioral experiments
8) Understand how evolution by natural selection shapes current behavior and how shared evolutionary relationships (phylogeny) can be used to understand the evolutionary history of behavior

Students will be evaluated in the course based upon examinations and assigned work designed to measure student success in meeting each of the listed student learning outcomes.

Format: Lectures, Paper Discussions, Behavior Exercises

The general format of the course will include lectures on major topics, student-led literature discussions of recent articles, and group-based behavioral projects. Lectures will be given during the first part of class every Monday, Wednesday, and Friday. Exams will be based largely on lecture material. The last hour of each class will be either discussion of a primary literature article or a group-based behavioral project.

Paper Discussions: Throughout the term, several scientific papers will be assigned as reading. Preparation for discussions will involve reading the article, writing a brief summary, and thinking about answers to assigned questions (available on Blackboard). For each of the assigned articles, **students must write a 200-300 word summary**. The summary **must be submitted to Blackboard by 9 AM on the day of discussion**. Summaries will be subject to a 'plagiarism check' and also serve as part of your Writing Intensive criteria. Summaries should be concise and coherent, written in the style of a short explanation for a popular audience (e.g., a book blurb or a short newspaper article). Summaries will be graded based on length, correctness, comprehension of material, correct use of terminology, and basic grammar. Each summary may be submitted only once and internet/computer glitches will not be considered excusable reasons for missing a due date. Instead, the one lowest summary grade will be dropped to compensate for one unexcused problem that you might encounter. No late assignments will be accepted.

Prior to paper discussions, students are also responsible for reading the article and thinking about several discussion questions. Discussion questions are available on Blackboard with each article. These questions are intended to stimulate discussion. You will be given time to discuss and complete the questions with a group during class. Then, each group will be responsible for presenting their answer to one question (chosen at random) for the class. **Discussion questions will be collected at the end of class and graded based on completion.** Your in-class discussion grade will be based on completion of these questions, your participation with your group, and presenting your answer to at least one question for the class during the term.

Mini group-based behavioral observations: students also will participate in several group-based observation projects during class time to practice observing and quantifying animal behavior. Each observation session will start with guidance by the instructor on what to observe/quantify. Then, students will work in groups to conduct observations and quantify behavior with their group. **A short write-up of what was observed and/or the result of the mini behavior project will be due on Blackboard before the start (9 AM) of the next class.** More information on what is expected for write-ups will be given before observations. Observations are expected to be completed during class time with your group. Missed observations may only be made up with a University excused absence and must be made up before the next class period. No unexcused missed observations may be made up.

Grading Assessment

EXAM 1	25 %
EXAM 2	25 %
PAPER DISCUSSIONS (summary, questions, & participation)	20 %
MINI BEHAVIOR OBSERVATIONS (write-up & participation)	15 %
FINAL PROJECT	15 %
TOTAL	100%

Grading Scale

A	90 – 100%	C	70 – 79%	F	< 60 %
B	80 – 89%	D	60 – 69%		

Exams

Exams will be based on the lecture and discussion material preceding each exam. Readings supplement the lecture material and are immeasurably helpful in preparing for exams. These exams will consist of short answer, multiple choice, and/or problem-solving questions. The exams will not be cumulative but may still build upon concepts covered on earlier exams. The final will not be cumulative

Makeups for missed exams will **only** be permitted with a valid medical excuse and if I am notified **before** the time of the exam. A doctor's note indicating that you are not fit to attend class will be required and I will check the validity of the note. You will need to provide me with contact information (phone number, address, or e-mail address) to verify your excuse for missing an exam. Makeups must be scheduled at a mutually agreeable time within 3 days after a missed exam, otherwise a score of zero will be given and no make-up will be permitted.

Starting Exams On Time: all students must be there to start the exam at the start of the normal time whether in the classroom or Student Support Services. No students will be allowed to leave any exam until 30 minutes of the exam period have passed. Students arriving after 30 minutes will not be allowed to take the exam.

Students taking exams with Student Disability Services must email the professor at least 24 hours in advance before the exam to confirm arrangements.

Final Project

Each student will complete a final project, which involves designing, carrying out, and writing up your own behavioral study. The final projects maybe completed individually or as a small group (e.g., 2-3 students), however, each group member is responsible for independently writing and submitting their own paper. Students will begin thinking about project ideas within the first weeks of the summer session. Then students will collect data and conduct observations during the 2nd half of the session, mainly on their own time, in order to complete a final project by the end of the semester. Final project write-ups are in the form of a scientific paper (further instruction on the format will be given during the semester), and **must be submitted on Blackboard before the start of class (9AM) Wednesday, July 6**. Details on the length and format of the final project will be made available on Blackboard early in the semester. Final project papers will be subject to peer- as well as faculty- review.

Late assignments: Will not be accepted without a valid excuse (e.g., a University excused absence). For all other assignments, work that is turned in late will be penalized by 10% per day unless the student provides documented, University-approved proof of the reason for their tardiness.

One week "Statute of Limitations": All grading questions about exams, homework, quizzes, group exercises, literature review, etc. must be addressed within one week of the scores being posted online or handed out in class. After this time, no changes will be made to existing grades. Therefore, it is essential that you check your grades regularly and contact your instructor within one week if you feel an error has been made. **Please contact me within 24hrs if you miss work because of an excused absence!**

Honor Code Violations: Students engaged in academic misconduct on an exam or assignment will be reported to the Academic Conduct Committee (http://www.umbc.edu/undergrad_ed/ai/documents/ACC2011.pdf) in accordance with UMBC policies, and will at a minimum receive a grade of 0 on that assignment, and will risk receiving an F in the course. Or being dismissed from the university. In particular, students should take care to avoid plagiarism, which is failure to put other's words in quotes, or failure to cite sources. See this link (esp.p.1) http://writing.wisc.edu/Handbook/Acknowledging_Sources.pdf. Failure to properly acknowledge other people's words, information or ideas has had serious consequences for students in this course in the recent past.

Considering Academic Misconduct or Falling Behind due to Distress? Please Consider Support:
University Health Services: http://www.umbc.edu/uhs/ x52542
Counseling Center: http://www.umbc.edu/counseling/ x52472
Sexual Assault Relationship Violence Response Team: http://www.umbc.edu/saf/staff/savrt.php
UMBC Police: x55555

Lecture Schedule *topics and scheduled dates may change at the discretion of the instructor*
*** (Article discussion and mini group-based observations in parentheses).*

Date		Topic	Suggested Reading (in Goodenough et al.)
June	**1**	**Go over syllabus; Why study behavior & History of animal behavior**	**Chapter 1; Chapter 2**
	3	**Behavioral genetics *(Mini group obs. 1)***	**Chapter 3**
	6	**Hormonal control of behavior; Nerve cells and behavior *(Discussion 1)***	**Chapter 7; Chapter 6**
	8	**Behavioral development *(Mini group obs. 2)***	**Chapter 8**
	10	**Learning / behavioral plasticity *(Mini group obs. 3)***	**Chapter 5**
	13	**Signals and communication *(Discussion 2)***	**Chapter 17**
	15	**Communication modalities 1 *(Mini group obs. 4)***	**Chapter 16**
	17	**Communication modalities 2 *(Discussion 3)***	**Chapter 16 cont'd**
	20	**Exam 1**	
	22	**Evolutionary stable strategies; Optimal foraging; Habitat selection *(work on group projects)***	**Chapters 10, 11, 12**
	24	**Group living; The ecology of social behavior *(Discussion 4)***	**Chapter 17, 19**
	27	**Parental care *(Discussion 5)***	**Chapter 15**
	29	**Evolutionary history / comparative methods *(Discussion 6)***	**Chapter 4**
July	**1**	**Sexual selection *(work on group projects)***	**Chapter 14**
	4	***** 4th of July – No class *****	
	6	**Mating systems; Final Project Due!**	**Chapter 15**
	8	**Exam 2**	