

COURSE OUTLINE
BIOLOGY 366 – BEHAVIOR OF ANIMALS
NORTHERN ARIZONA UNIVERSITY
FALL 2012

GENERAL INFORMATION:

Instructor: Stephen M. Shuster, BS 302

Office Hrs: TTh: 2:00-3:00 or by appointment.

Phone: SMS: 928-523-9302, -4641 (Stephen.shuster@nau.edu);

Class time: TTh 12:45-2:00, BS 256.

Prerequisites: None

COURSE DESCRIPTION:

This course provides an introduction to the theory and principles currently used in the analysis of animal behavior. Lectures will emphasize the importance of animal behavior studies in scientific inquiry, questions of proximate and ultimate causation, the history of animal behavior studies, developmental, neural and endocrine mechanisms underlying behavioral responses, and evolutionary analyses of foraging behavior, nest site selection, communication, mating systems, sexual selection, parental care and social behavior.

COURSE OBJECTIVES:

The three objectives of this course are to provide students with: (1) an understanding of current theoretical and empirical approaches to the study of animal behavior, (2) experience in critical thinking and discussion of these fundamental concepts, and (3) an opportunity to demonstrate their understanding of central concepts, theory and literature through discussions, in-class quizzes and on lecture exams.

TEXTBOOKS AND REQUIRED MATERIALS:

The required textbook for this course is: Alcock, J. 2009. *Animal Behavior: An Evolutionary Approach*, 9th Ed. Sunderland, MA: Sinauer Associates, Inc. ISBN: 0-87893-005-1. Copies are available in the bookstores or online.

Additional articles from the primary literature will also be available online as pdf files on Blackboard (Bb) Vista. If you are unable to download any of these files, please contact your instructor immediately.

Student response pads or "clickers" are small, handheld devices that allow students to respond to questions during class discussions and assessment activities. Clickers are required for this class. They can be purchased at the NAU Bookstore and activated online. More information about clickers, including activation instructions, can be found at: <http://einstruction.com/>

EVALUATION:

The primary source of points for this course will come from daily quizzes, given at some time during each lecture period. There also be a midterm exam and a comprehensive final exam (see course outline below).

Grade Assignment: Grades will be assigned by one of two criteria. The most rigorous one is on a straight scale: 90% -100% of the total points = A; 80%-89% = B; 70%-79% = C; 60%-69% = D; 59% or lower = F. The less rigorous criterion will be based on the highest score received by a student in the class. That score will be considered "100%" and all lower scores

will be adjusted to that scale. In cases in which students' total scores are extremely close to the next higher score (e.g., within 1.0 point), grades may be adjusted to account for enthusiastic class participation. All other adjustments will not be considered.

Total points for this course will be allocated as follows:

Item	Number	Value	Points
Daily Quizzes	26	5	130
Midterm Exam	1	50	50
Final Exam	1	50	75
Total Points			255

Make-up Exams: Students will not be allowed to retake any examinations under any circumstances. Quizzes cannot, under any circumstances, be made up or re-taken. Students may take a lecture exam in advance of the exam date if they know they will be absent. However, such arrangements must be made at least one week in advance of the scheduled exam. If an exam is missed, students must be able to document their reasons for missing the exam within 6 hrs of the scheduled exam time, and only extreme catastrophes will be considered as valid excuses. All other missed exams will be counted as zero toward the student's total score.

Attendance: Regular attendance is required for this course due to daily quizzes. A pattern of delinquency or absence could affect the final grade or result automatic withdrawal from the course.

Clicker Use: Clickers are used to collect data that evaluate student performance. Clicker use is an academic activity subject to the same standards of academic integrity that other academic endeavors are. Inappropriate use of clickers, including student use of clickers not registered to them and entering data from anywhere except the classroom, violates NAU's policy on academic integrity. Students who do this are subject to severe penalties, including automatic withdrawal or failure of the course.

Curricular Changes: The instructor reserves the right to make additions, deletions, and modifications to the syllabus, curriculum, and course requirements with reasonable notification to the students enrolled.

Academic Honesty: is the ONLY policy in this course. Evidence of plagiarism or cheating is justification for failure on an exam, expulsion from the course, and dismissal from the University, as stated in the Departmental policy for cheating and plagiarism (available on the Departmental website). CHEATING IS A SERIOUS ACADEMIC OFFENSE! EXPECT NO LENIENCY WHATSOEVER!

Cell Phone Use: Students may not use cell phones or PDAs in class. Ringtones must be turned off. Students may not engage in text messaging. Students who inappropriately use their cell phone or PDA in the classroom will be warned and/or asked to leave.

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WK	Date	Lecture Topic	Readings
1	8/28 8/30	Introduction; the importance of animal behavior Behavior as a way of knowing Science	Alcock Ch. 1, 6
2	9/04 9/06	A brief history of animal behavior Proximate and ultimate causation	Alcock Ch. 2
3	9/11 9/13	Genetics of behavior Development of behavior	Alcock Ch. 3
4	9/18 9/20	Neural control of behavior Endocrine control of behavior	Alcock Ch. 4, 5
5	9/25 9/27	Nature vs Nurture Behavior in variable environments	Alcock Ch. 3
6	10/02 10/04	Foraging Optimality models	Alcock Ch. 7
7	10/09 10/11	Habitat selection Midterm Exam	Alcock Ch. 8
8	10/16 10/18	Aggression Game theory	Alcock Ch. 6, 7
9	10/23 10/25	Communication Communication	Alcock Ch. 9
10	10/30 11/01	Mating systems and sexual selection Mating systems and sexual selection	Alcock Ch. 10, 11
11	11/06 11/08	Alternative Mating Strategies Alternative Mating Strategies	Alcock Ch. 10, 12
12	11/13 11/15	Parental care Parental care	Alcock Ch. 12
13	11/20 11/22	Sociality: current hypotheses Thanksgiving Holiday – no lecture	Alcock Ch. 13
14	11/27 11/29	Sociality: Direct and Indirect Genetic Effects Human behavior	Alcock Ch. 14
15	12/04 12/06	Human behavior Review	
16	12/11	Final Exam – 12:30-2:30	

NORTHERN ARIZONA UNIVERSITY POLICY STATEMENTS

SAFE ENVIRONMENT POLICY

NAU's Safe Working and Learning Environment Policy seeks to prohibit discrimination and promote the safety of all individuals within the university. The goal of this policy is to prevent the occurrence of discrimination on the basis of sex, race, color, age, national origin, religion, sexual orientation, disability, or veteran status and to prevent sexual harassment, sexual assault or retaliation by anyone at this university.

You may obtain a copy of this policy from the college dean's office or from the NAU's Affirmative Action website <http://home.nau.edu/diversity/>. If you have concerns about this policy, it is important that you contact the departmental chair, dean's office, the Office of Student Life (928-523-5181), or NAU's Office of Affirmative Action (928-523-3312).

STUDENTS WITH DISABILITIES

If you have a documented disability, you can arrange for accommodations by contacting Disability Resources (DR) at 523-8773 (voice) or 523-6906 (TTY), dr@nau.edu (e-mail) or 928-523-8747 (fax). Students needing academic accommodations are required to register with DR and provide required disability related documentation. Although you may request an accommodation at any time, in order for DR to best meet your individual needs, you are urged to register and submit necessary documentation (www.nau.edu/dr) 8 weeks prior to the time you wish to receive accommodations. DR is strongly committed to the needs of student with disabilities and the promotion of Universal Design. Concerns or questions related to the accessibility of programs and facilities at NAU may be brought to the attention of DR or the Office of Affirmative Action and Equal Opportunity (523-3312).

INSTITUTIONAL REVIEW BOARD

Any study involving observation of or interaction with human subjects that originates at NAU—including a course project, report, or research paper—must be reviewed and approved by the Institutional Review Board (IRB) for the protection of human subjects in research and research-related activities.

The IRB meets monthly. Proposals must be submitted for review at least fifteen working days before the monthly meeting. You should consult with your course instructor early in the course to ascertain if your project needs to be reviewed by the IRB and/or to secure information or appropriate forms and procedures for the IRB review. Your instructor and department chair or college dean must sign the application for approval by the IRB. The IRB categorizes projects into three levels depending on the nature of the project: exempt from further review, expedited review, or full board review. If the IRB certifies that a project is exempt from further review, you need not resubmit the project for continuing IRB review as long as there are no modifications in the exempted procedures.

A copy of the IRB Policy and Procedures Manual is available in each department's administrative office and each college dean's office or on their website: <http://www.research.nau.edu/vpr/IRB/index.htm>. If you have questions, contact the IRB Coordinator in the Office of the Vice President for Research at 928-523-8288 or 523-4340.

ACADEMIC INTEGRITY

The university takes an extremely serious view of violations of academic integrity. As members of the academic community, NAU's administration, faculty, staff and students are dedicated to promoting an atmosphere of honesty and are committed to maintaining the academic integrity essential to the education process. Inherent in this commitment is the belief that academic dishonesty in all forms violates the basic principles of integrity and impedes learning. Students are therefore responsible for conducting themselves in an academically honest manner.

Individual students and faculty members are responsible for identifying instances of academic dishonesty. Faculty members then recommend penalties to the department chair or college dean in keeping with the severity of the violation. The complete policy on academic integrity is in Appendix G of NAU's Student Handbook <http://www4.nau.edu/stulife/handbookdishonesty.htm>.

ACADEMIC CONTACT HOUR POLICY

The Arizona Board of Regents Academic Contact Hour Policy (ABOR Handbook, 2-206, Academic Credit) states: "an hour of work is the equivalent of 50 minutes of class time ... at least 15 contact hours of recitation,

lecture, discussion, testing or evaluation, seminar, or colloquium as well as a minimum of 30 hours of student homework is required for each unit of credit.”

The reasonable interpretation of this policy is that for every credit hour, a student should expect, on average, to do a minimum of two additional hours of work per week; e.g., preparation, homework, studying.

SENSITIVE COURSE MATERIALS

University education aims to expand student understanding and awareness. Thus, it necessarily involves engagement with a wide range of information, ideas, and creative representations. In the course of college studies, students can expect to encounter—and critically appraise—materials that may differ from and perhaps challenge familiar understandings, ideas, and beliefs. Students are encouraged to discuss these matters with faculty.