Behavioral Ecology, Biology 407.01
Fall 2017

Instructor: Dr. Brent Burt  
Class meeting time and place: TR 8:00-9:15, Miller 134a
Department: Biology  
Office: Science 222  
Phone: 468-2482  
E-mail: dbburt@sfasu.edu
Office hours: MWF 9:00-10:00, TR 9:30-10:30, and by appointment

Additional Reading: Papers from primary literature
Course online resources: see D2L

Course Description:
3 semester hours, 3 hours lecture per week. The study of how animal behaviors influence survival and reproduction of individuals in different ecological settings. The course will examine the ecological context in which behaviors evolve. The course will consist of lectures and class discussions of assigned readings of important behavioral studies. Prerequisite: BIO 313 or FOR 209.

Course Objectives:
- Encourage students to develop critical thinking skills by reading and discussion of primary literature papers.
- Provide students with an understanding of how an animal’s behavior is key to its ecological and evolutionary success.

Student Learning Outcomes:
1. Improve scientific literature analysis skills.
2. Develop skills for quantifying and analyzing animal behaviors
3. Understand how behaviors are influenced both by genes and the environment
4. Learn the basic aspects of animal communication
5. Understand how animals use predator avoidance behaviors
6. Understand how animals make foraging and habitat use decisions
7. Learn how male and female animals choose and attempt to acquire mates
8. Learn the factors that influence different mating systems and how these covary with parental care systems
9. Understand the circumstances in which animals live in complex social systems

Program Learning Outcomes:
PLO 1. The student will demonstrate a good knowledge base in biological concepts (Knowledge). This PLO is achieved with SLO 3-9.
PLO 4. The student will be able to design, carry out, and analyze experiments to answer biological questions using the scientific method (Methods). This PLO is achieved with SLO 1 and 2.

Grading Policy:
Your final grade in this course is determined by grades from lecture exams, your research project, literature review class discussions, daily lecture quizzes and participation in the course evaluation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 exams</td>
<td>300 pts (100 each)</td>
</tr>
<tr>
<td>Research project</td>
<td>100 pts</td>
</tr>
<tr>
<td>Paper discussions</td>
<td>60 pts (20 each)</td>
</tr>
<tr>
<td>Course evaluation</td>
<td>5 pts</td>
</tr>
</tbody>
</table>

Grade are determined by earning 90%, 80%, 70% and 60% of the available points for the associated traditional letter grade.

Course Requirements:
This course is going to run as my version of a “flipped” class. This means all lectures will be posted online for you to view and study at your convenience. **We will not meet as a class on Thursdays.** I will be available for individual consultations during the class period on these days. We will meet each Tuesday, at which time we will address questions and concerns about lecture materials and research projects. Tuesdays will also be used for exams and discussions of assigned readings from the scientific literature.

Lecture exams will be a combination of fill-in-the-blank, figure interpretation/drawing, and short answer/essay questions. **Make-up lecture exams are given prior to regularly scheduled**
exams (given certain circumstances) or at the end of the semester only. Anyone showing up late to take an exam must take the comprehensive final exam (see below) if they arrive after any other student has already turned in their exam and left the room. Latecomers to the final exam will not be allowed to take the exam if they show up after any other student has already turned in their exam.

All students will be required to collect and analyze behavioral data and present their findings in a poster format. Students can work in groups of up to 3 individuals (more if you have a good reason). Groups must document the contributions of each individual to the project. More information on this project will be forthcoming.

For each paper discussion you will be required to bring in a printed copy of two observations concerning the paper that demonstrate you have read and critically assessed the paper. You will not receive full points if you do not have this document prior to the start of the class meeting.

All students will be given the option of taking an optional, comprehensive final exam. The score for this exam will replace the lowest grade from the regular exams. This exam will serve as the makeup exam for missed exams.

It is departmental policy to require students to fill out online class evaluations at the semester's end using mySFA.

Student Behavior
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program. Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment will be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

Class etiquette-
- Do not be late for class.
- Do not leave before the class period is over.
- Do not anticipate the end of class and start putting your things away.
- Do not talk during class.
- Turn off your phone.
- Stay awake.

Student Academic Dishonesty (4.1)
Abiding by university policy on academic integrity is a responsibility of all university faculty and students. Faculty members must promote the components of academic integrity in their instruction, and course syllabi are required to provide information about penalties for cheating and plagiarism as well as the appeal process.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes, but is not limited to:
- using or attempting to use unauthorized materials on any class assignment or exam;
- falsifying or inventing of any information, including citations, on an assignment; and/or;
- helping or attempting to help another in an act of cheating or plagiarism.

Plagiarism is presenting the words or ideas of another person as if they were one’s own. Examples of plagiarism include, but are not limited to:
- submitting an assignment as one’s own work when it is at least partly the work of another person;
• submitting a work that has been purchased or otherwise obtained from the Internet or another source; and/or,
• incorporating the words or ideas of an author into one's paper or presentation without giving the author credit.

Penalties for Academic Dishonesty
Penalties may include, but are not limited to reprimand, no credit for the assignment or exam, re-submission of the work, make-up exam, failure of the course, or expulsion from the university.

Procedure for Addressing Student Academic Dishonesty
A faculty member who has evidence and/or suspects that academic dishonesty has occurred will gather all pertinent information and initiate the following procedure:

• The faculty member will discuss all evidence of cheating or plagiarism directly with the student(s) involved.
• After consideration of the explanation provided by the student(s), the faculty member will determine whether academic dishonesty has occurred. The faculty member may consult with the academic unit head and/or dean in making a decision.
• After a determination of academic dishonesty, the faculty member will inform the academic unit head and submit a Report of Academic Dishonesty with supporting documentation to the office of the dean of the student's major. This report will become part of the student's record and will remain on file with the dean's office for at least four years even if the student withdraws prior to receiving a grade.
• For a serious first offense or subsequent offenses, the dean of the student's major will determine a course of action, which may include dismissal from the university. The dean may refer the case to the college council for review and recommendations before making this determination.

A student's record of academic dishonesty will not be available to faculty members. The purpose of the record is for the dean to track a pattern of academic dishonesty during a student's academic career at Stephen F. Austin State University.

Student Appeals
A student who wishes to appeal decisions related to academic dishonesty should follow procedures outlined in Academic Appeals by Students (6.3).

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/. 
<table>
<thead>
<tr>
<th>Date</th>
<th>In Class Activity</th>
<th>Video Topics to View for Next Week’s Discussion</th>
<th>Research Project Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 29,31</td>
<td>Course introduction</td>
<td>Introduction to behavioral studies &amp; natural selection, Testing Hypothesis, Communication I-III</td>
<td>Consider potential projects (make preliminary observations and read background literature)</td>
</tr>
<tr>
<td>Sep 5,7</td>
<td>Discuss methods for collection of behavioral data</td>
<td>Antipredator Adaptations I-III</td>
<td>Research project proposal due via email on 6 Sept.</td>
</tr>
<tr>
<td>Sep 12,14</td>
<td>Discussion of project plans</td>
<td>Foraging I-III</td>
<td>Project consultation and trouble shooting, data collection</td>
</tr>
<tr>
<td>Sep 19,21</td>
<td>Paper Discussion</td>
<td>Review lecture material for exam</td>
<td>Data collection</td>
</tr>
<tr>
<td>Sep 26,28</td>
<td>EXAM 1</td>
<td>Habitat use I-III</td>
<td>Data collection</td>
</tr>
<tr>
<td>Oct 3,5</td>
<td>Setting up data in a spreadsheet, JMP intro.</td>
<td>Sexual Selection I-III</td>
<td>Data collection</td>
</tr>
<tr>
<td>Oct 10,12</td>
<td>Basic statistical analyses</td>
<td>Mating Systems I</td>
<td>Put initial data into Excel and email copy, additional data collection</td>
</tr>
<tr>
<td>Oct 17,19</td>
<td>Basic statistical analyses</td>
<td>Mating Systems II</td>
<td>Wrap up data collection, data analyses</td>
</tr>
<tr>
<td>Oct 24,26</td>
<td>Paper Discussion</td>
<td>Review lecture material for exam</td>
<td>Data analyses</td>
</tr>
<tr>
<td>Oct 31, Nov 2</td>
<td>EXAM 2</td>
<td>Parental Care Behavior I-III</td>
<td>Email data analyses</td>
</tr>
<tr>
<td>Nov 7,9</td>
<td>Poster design</td>
<td>Social Interactions, Cooperative Breeding</td>
<td>Email PowerPoint slide, critique of poster</td>
</tr>
<tr>
<td>Nov 14,16</td>
<td></td>
<td>Eusociality, Human Behavioral Ecology</td>
<td>Email revised PowerPoint slide, final critique of poster design</td>
</tr>
<tr>
<td>Nov 21,23</td>
<td>Thanksgiving</td>
<td>Thanksgiving</td>
<td></td>
</tr>
<tr>
<td>Nov 28,30</td>
<td>Paper Discussion</td>
<td>Review lecture material for exam</td>
<td>Take poster to print shop early in the week</td>
</tr>
<tr>
<td>Dec 5</td>
<td>EXAM 3</td>
<td></td>
<td>Email final data file and poster</td>
</tr>
<tr>
<td>Dec 7</td>
<td>POSTER SESSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 14</td>
<td>Final Exam 8:00-10:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>