Behavioral Ecology – RNR 7006

**Fall 2017**

**Welcome to Behavioral Ecology for the Fall 2017 semester!**

**Lectures:** 1:30 - 2:50 Monday and Wednesday, RNR 230

**Instructors:** Drs. Kevin Ringelman and Sabrina Taylor

Ringelman: RNR 310, 578-4212, kringelman at lsu.edu

Taylor: RNR 331, 578-4137, staylor at lsu.edu

**Office Hours:** Drop in if we are there, appointments are also fine.

**Lecture Text:** R. M. Sapolsky. 2004. Why Zebras Don’t Get Ulcers (3rd Edition). Holt Paperbacks.

**Web materials:** PowerPoint presentations available on Moodle.

# Course Description: 7006 Behavioural Ecology (3) *3 hours lecture.* Behavioral ecology of animals; evolution of behavior; behavioral strategies for survival and reproduction; importance of behavior to management and conservation strategies. LSU credit expectations include a minimum of 2-3 hours of studying or homework outside of class for each earned credit.

**Course Goal:** This course uses an evolution-driven approach to describe theoretical models of animal behavior, and their practical evaluation in empirical systems. Throughout the course, we will emphasize the importance of animal behavior in shaping population and community structure, with obvious ties to conservation biology and wildlife management.

**Evaluation:**

1. Each student is responsible for giving one 50 min lecture on a well-known study system of the student’s choice (e.g. naked mole rats, social spiders, dunnocks, ants, lions, hyenas, acorn woodpeckers, bee eaters, honey bees) as well as providing primary readings and leading a 30 min discussion for that lecture (150 points).
2. There will be one term paper due summarizing the literature on a well-known study system of the student’s choice (can be the same as the lecture topic). This paper must also include a research proposal/study design to address a knowledge gap in the current literature.

Length and format:

First draft: 8 double-spaced pages

Final draft: 10 double-spaced pages

Format: Times New Roman 12 point font with 1” margins. Citation format follows the Journal of Wildlife Management (p. 48 in http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291937-2817/homepage/TWSGuidelines2016.docx).

Evaluation of the term paper will include:

A draft of the paper due halfway through the term (100 points)

A final version due in lieu of a final exam (150 points)

Peer reviews of midterm drafts written by two other students (25 points each, 50 points total) – see guidelines at the end of this syllabus

1. Leading book chapter discussions twice (25 points each)
2. Participation (100 points total)

Grading Scale: 97-100 A+ 87-89.9 B+ 77-79.9 C+ 67-69.9 D+ <59.9% F

93-96.9 A 83-86.9 B 73-76.9 C 63-66.9 D

90-92.9 A- 80-82.9 B- 70-72.9 C- 60-62.9 D-

**Note**: Attendance ≠ participation. There will be a loss of participation points if you avoid discussions or if you are working on other things during class time.

**Proposed Schedule:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** |  | **Lecture topic or assignment** | **Sapolsky Chapter** |
| 21 | Aug | Introduction & history (KR) |  |
| 23 | Aug | An evolutionary approach (ST) | 1 |
| 28 | Aug | Sensory ecology (KR) | 2 |
| 30 | Aug | Classes cancelled—Harvey |  |
| 4 | Sep | **Labor Day!** |  |
| 6 | Sep | Communication (ST) | 3 |
| 11 | Sep | Predator-prey: optimal diet theory (KR) | 4 – Nick |
| 13 | Sep | Predator-prey: optimal patch use (KR) | 5 & 6 – Lizzi, Jacob W |
| 18 | Sep | Predator-prey: ecology of fear, behavioral response races (KR) | 7 – Allie |
| 20 | Sep | Sexual selection and conflict (ST) | 8 – Alaina |
| 25 | Sep | Parental care (ST) | 9 & 10 – Landon, Jacob B |
| 27 | Sep | Mating systems (ST) | 11 & 12 – Keith, David |
| 2 | Oct | Game theory (KR)  Discuss peer review assignment  ***Mid-term draft research paper due*** |  |
| 4 | Oct | Student presentation – DAVID |  |
| 9 | Oct | Behavioral syndromes (KR) | 13 – Hugh, Tyler |
| 11 | Oct | Student presentation – ALLIE |  |
| 16 | Oct | Student presentation – JACOB B  ***Peer reviews due***  Discuss reviews |  |
| 18 | Oct | Student presentation – KEITH |  |
| 23 | Oct | Sex allocation (ST) | 14 & 15 – Nick, Lizzi |
| 25 | Oct | Student presentation – JACOB W |  |
| 30 | Oct | Cooperation and helping behavior (ST) | 16 – Jacob W, Allie |
| 1 | Nov | Student presentation – ALAINA |  |
| 6 | Nov | Behavior and conservation (ST) | 17 – Jacob B, Alaina |
| 8 | Nov | Student presentation – LANDON |  |
| 13 | Nov | Ecological impacts of behavior (KR) | 18 - Landon |
| 15 | Nov | Student presentation – NICK |  |
| 20 | Nov | Student presentation – LIZZI |  |
| 22 | Nov | **Thanksgiving!** |  |
| 27 | Nov | Student presentation – HUGH |  |
| 29 | Nov | Student presentation – TYLER |  |
| 7 | Dec | ***Final research paper due*** |  |

**Late Assignments and Decorum:**

Late assignments will only be accepted for approved excuses as outlined in LSU Policy Statement 22. Alternative due dates will be arranged for those with valid excuses.

Free discussion, inquiry, and expression are encouraged in this class. Classroom behavior that interferes with either (a) the instructors’ ability to conduct the class, or (b) the ability of students to benefit from instruction is not acceptable. Examples may include entering class late or departing early; use of telephones; talking in class without being recognized; or arguing in a way that crosses the civility line. Tobacco, food, and drink are not permitted in class. Cell phones must be silenced and stored out of sight.

**Peer review**

**For each review you complete, you can receive up to 25 points (50 total points)**,

based on the quality of your review (see below). You may comment on content, structure, organization, grammar, etc. “Bigger picture” reviews that address fundamental aspects of good science and critical thinking are encouraged. As a reminder, key aspects include:

1. Clarity: has the writer elaborated sufficiently for a reader to understand? Have examples been provided?
2. Accuracy: are statements/assertions verifiable (e.g. via citations)?
3. Precision: is the writer specific/exact?
4. Relevance: will the question answer the problem?
5. Depth: what are some of the complexities/difficulties that should be considered?
6. Breadth: does the writer need to consider other perspectives/other variables (e.g. potential sources of bias, whether unaccounted for variables may influence the results)?
7. Logic: does the document make sense? Does the first paragraph fit with the last? Does the approach and/or conclusions in the document follow from the evidence?
8. Significance: is this an important problem to consider?

From: <http://www.criticalthinking.org/pages/universal-intellectual-standards/527>

Merely correcting grammar and syntax are insufficient for a good grade.

Excellent (A+, A, A-) – Provided critical and thorough feedback to:

1. Increase the quality/rigor of the science and critical thinking (see points above)
2. Improve overall organization and style
3. Provide alternative phrasing, identify strong and weak sections

In other words, a review like this will lead to substantial improvement in the paper.

Good (B+, B, B-) – Provided moderate and less critical feedback on the science and thinking; offered assistance to improve parts of the paper. Review will lead to improvement of the paper.

Fair (C+, C, C-) – Provided minimal critical feedback on the science and thinking; provided minimal feedback on overall structure and organization, assisted with some phrasing and style issues. Review was too vague to be more than marginally useful.

Poor (D+, D, D-, F) – Offered a few minor suggestions. The writer wasted their time waiting for this review.

**Disabled Students:**

If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Room 112, Johnston Hall. No accommodations will be granted without documentation from the Office of Disability Services.

**Plagiarism:**

Plagiarizing reflects very badly on your academic integrity and has serious consequences. To learn more about plagiarizing see guidelines at: <http://www.lsu.edu/judicialaffairs/Plagiarism.htm> All cases of plagiarism will be immediately forwarded to the Dean of Students.