EEBL 608 - Integrative Animal Behavior

Day: TR  
Time: TBD (75 min.)  
Location: TBD  
Number of Credits: 01 Credit

Instructors:
(odd years)  
Prof. Gil Rosenthal  
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http://swordtail.tamu.edu  
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(even years)  
Prof. Gregory Sword  
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Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This final component of the Core Sequence in Ecology & Evolutionary Biology examines how behavior contributes to survival and reproduction, and in turn how evolutionary history and ecological circumstance interact to shape the expression of behavior. The major focus of the course will be the integrative nature of behavior: the interaction of evolutionary processes, mechanistic constraints, and ecological demands involved in selecting for a set of behavioral strategies.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material (original papers, review papers, and textbook chapters).
- Participate actively in discussions. Each day, one or more students will be responsible for leading discussion on the day’s topic and should come prepared with pertinent points.
- Complete two problem sets featuring short, quantitative questions related to the course material. A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. **Late exams** will be downgraded a letter grade for each day late.

**Course goals:** The goal of this course is to provide a sophisticated understanding of animal behavior from both mechanistic and evolutionary perspectives, and more generally to encourage thinking about ecology and evolutionary biology as a conceptually unified discipline.

**Grading:** Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 15%; problem sets: 15% each; short, take-home essay exam: 30%.

**Grade scale:** 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F

**Americans with Disabilities Act (ADA):** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

**Academic Integrity:** For additional information please visit: http://aggiehonor.tamu.edu. Please pay close attention to guidelines on avoiding plagiarism: http://aggiehonor.tamu.edu/Descriptions/Plagiarism.aspx.

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

**REQUIRED TEXTBOOK**

**SUGGESTED READINGS**

**LECTURES**
1. Mechanisms of behavior. **Readings:** Westneat & Fox (W&F) chapters 1, 5, 6.
2. Foraging and cognitive ecology. **Readings:** W&F chapters 8, 9, 11-13
3. Game theory and communication. **Readings:** W&F chapters 14-16. **Problem set 1 due.**
4. Living in groups and collective decision-making. **Readings:** W&F chapters 17-19. **Problem set 2 due.**
5. Mate choice and mating systems. **Readings:** W& F chapters 20, 22-25.

**Take-home essay exam** due by email at 4 pm the day after lecture 6. *One letter grade will be deducted for each day past the deadline!*