BIOL 667 Integrative Animal Behavior

Day: TR
Time: 9:35-10:50 am
Location: HECC 203

Number of Credits: 03 Credits

Instructor:

Dr. Gil Rosenthal
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Email: grosenthal@bio.tamu.edu

Office hours: by appointment

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

Course prerequisites: Graduate classification.

Course description: This lecture-based course 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. Readings will be drawn from contemporary reviews and the primary literature.

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Course requirements:

- Attend all lectures and discussion sections and participate actively. **Let me know in advance** of any dates you know are coming up (religious holidays, extracurricular activities) at the beginning of the semester. If you must miss class due to extraordinary circumstances, **let me know in advance**. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with me 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).
- Two (2) take-home, open-book exams, to be answered in approximately two hours each, including short essays, short answers, and quantitative problems. Each exam will cumulatively cover the previous course material.
- One (1) final paper using fully referenced scholarly verbal and quantitative arguments to answer a set of key questions, comprehensively covering the material in the course.
- Quantitative, short-answer, and multiple-choice **iClicker problems** will be given throughout the lectures. Each correct answer will be worth one point, up to 25 total. At least 75 questions will be asked so that a few absences and incorrect answers won't hurt your grade.
- One (1) lecture-style presentation on a topic agreed upon with instructor.

Late exams will be downgraded a letter grade for each ***hour*** late.

Learning outcomes: 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 biology as a conceptually unified discipline. Students will also learn how to critically evaluate original research papers as well as improve their skills at quantitative reasoning and written expression.

Grading: Letter grades will be assigned based as follows: bibliography assignment: 5%; first hour exam: 10%; second hour exam: 15%; comprehensive paper: 25%; in-class clicker problems: 25%; oral presentation: 20%.

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, currently located in the Disability Services building at the Student Services at White Creek Complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Title IX and Statement on Limits to Confidentiality: Texas A&M University and the College of Science are committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws provide guidance for achieving such an environment. Although class materials are generally considered confidential pursuant to student record policies and laws, University employees — including instructors — cannot maintain confidentiality when it conflicts with their responsibility to report certain issues that jeopardize the health and safety of our community. As the instructors, we must report (per Texas A&M System Regulation 08.01.01) the following information to other University offices if you share it with me, even if you do not want the disclosed information to be shared:

• Allegations of sexual assault, sexual discrimination, or sexual harassment when they involve TAMU students, faculty, or staff, or third parties visiting campus.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In many cases, it will be your decision whether or not you wish to speak with that individual. If you would like to talk about these events in a more confidential setting, you are encouraged to make an appointment with the Student Counseling Service (https://scs.tamu.edu/).

Students and faculty can report non-emergency behavior that causes them to be concerned at http://tellsomebody.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

Davies, N. B., Krebs, J. R. & West, S. A. 2012. *An introduction to behavioural ecology.* Wiley-Blackwell, 4th edition.

SUGGESTED READINGS

Dugatkin, L.A. 2008. *Principles of animal behavior.* 3rd edition.
Futuyma, D. J. and Kirkpatrick, M. 2017. *Evolution.* 3nd edition.
Martin, P. & Bateson, P. 2007. *Measuring behaviour: an introductory guide.* 3rd edition.

LECTURES, READINGS, AND KEY DATES appear below. For each class, we'll read a general review paper or a textbook chapter, and an original research paper. Please download papers yourself unless specified and read **by the lecture for which it's assigned**. Papers may change up to a week before the date assigned.