Animal Behavior WILD(BIOL) 3700W (3 credits) Maymester in Australia and New Zealand

This syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary

Course Instructor, Contact Details and Schedule

Lead Instructor: Dr. John Maerz, Carey Distinguished Research Professor and Meigs

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This is a field studies course taught overseas; refer to the sample itinerary.

Course Description

Behavior is one the most important and interesting aspects of animal biology. Behaviors permit flexibility, which allows animals to respond rapidly to environmental changes. This course uses an immersive and adventurous experience against the backdrop of New Zealand's Fiordlands, Southern Alps, and marine life and Australia's Outback at Carnarvon Gorge and Great Barrier Reef to understand the broad field of animal behavior. Students will understand the historical foundations of the field, scientific approaches to the study of animal behavior, and current theories and evidence for a broad range of behavioral topics and applications. Applications of animal behavior will focus in particular on wildlife conservation and management, and human ecology and sustainable resource use. Students will participate in practical exercises and field experiences to learn some fundamental techniques used to study behavior. Because this course is offered in conjunction with FANR 4271, *People, Planet and Profit*, this course affords students opportunities to understand how human societies shape and have been shaped by local ecology including the use and management of animals.

Course Prerequisites, Corequisites and Cross-listings

BIOL 1108 or equivalent with permission of instructor. This course fulfills the restricted elective requirements of Biology (BIOL) or Wildlife (WILD) majors at the undergraduate (3700W) level. As always, confirm with your advisor how the course will count in your program of study. When registering, select only WILD 3700W for 3 credits.

Course Objectives and Learning Outcomes

By the end of the program students will:

- 1. Analyze theories and evidence for understanding behaviors as traits that evolve
- Use fundamental techniques to quantify behavior
- 3. Quantify, analyze and present data on animal behavior
- 4. Apply behavioral theories and evidence to management scenarios, and defend their arguments

Specific topics covered in this course include:

- 1. Evolution and approaches to the study of the evolution of behaviors
- 2. Proximate drivers of behavior
 - a. Neurobiology, endocrinology, and endogenous rhythms

- b. Sensory ecology
- c. Behavioral genetics
- d. Personalities and behavioral syndromes
- e. Learning and developmental controls of behavior
- 3. Habitat selection, migration, and dispersal
- 4. Animal communication systems
- 5. Aggression and territorial behaviors
- 6. Foraging behaviors
- 7. Antipredator behaviors
- 8. The evolution of sex, sexual selection, and reproduction
- 9. Sociobiology
 - a. Mating systems
 - b. Parental care
 - c. Kin selection
 - d. Group living and cooperation
- 10. The evolution of play
- 11. Adaptive individual differences and animal personalities
- 12. Animal cognition
- 13. Applications of animal behavior to animal conservation and human welfare

Graduate and Honors Option Credit

There is no graduate version of this course. If you wish to honors option this course, please speak with the instructor or the <u>Honors Program</u> There are additional requirements for honors options, refer to "Additional Course Assignment for Honors Option" below.

Participation Policy

Punctual attendance at all scheduled program—related activities is required, including group meetings, discussions, field excursions, as well as lectures and any other scheduled activities. Participation in educational field activities (such as hiking, snorkeling, swimming, etc.) is voluntary and at the discretion of the student; however, should you wish not to participate you must inform the instructor and an alternate education non-field activity will be assigned. An excused absence or decision not to participate in one or any of these field activities will not affect your course grade. During the field studies, no student may leave the group without the consent of the faculty supervisor. Unless an absence is approved by one of the instructors, students will lose 10% of their final grade for each day or part-day they fail to participate. Unexcused absences or chronic late arrival to program activities may be grounds for dismissal from the program.

Academic Honesty

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found here. All academic work must meet the standards described in the University's Culture of Honesty policy. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and this policy should be directed to the instructor.

Required Course Material

Collection of readings and course material. Download from UGA e-Learning Commons (www.elc.uga.edu) prior to departure. The files will be available approximately four weeks prior to the start

of the program and you should not expect to be able to download the materials easily or cheaply once in country. You are required to bring a laptop or notebook with Microsoft Word (iPads, kindles, or other similar electronic reading devices are not acceptable for course assignments) and a flash drive. The program accepts no responsibility for lost or stolen items, and we recommend that you consider purchasing insurance for any expensive personal items before bringing them on the course.

Course Requirements

1. Reading inquiry responses (50%)

Pre-arrival reading responses will be used throughout the program to help guide you through the readings, and help you synthesize content from the readings for use in other activities. Further, short answer questions on the final exam will be drawn predominantly from the pre-arrival reading prompts. Reading responses will be due before or immediately upon arrival at the destination and will not be accepted after arrival.

2. Field projects (35%)

It is difficult to fully understand behavioral sciences without the opportunity to conduct practical exercises. We will conduct field observation studies, simulations, and an independent research project. You will work in assigned groups and after each exercise is complete, your group will be asked to write a report or give a professional presentation where you will summarize your results and defend the inferences you draw from your data.

3. Final exam (15%)

This will be traditional exam covering all lecture, field and reading material. The exam will draw heavily from the pre-arrival guizzes and lectures.

Additional Assignment for Honors Option Credit

Honors credit for the Course requires both of the following: (1) the quality of the presentations, written exam material, and project assignments will be of a higher quality than at the undergraduate level (accordingly, written material and project assignments will receive more rigorous grading than at the undergraduate level) and (2) Completion of a book review, both of which must be typed in Arial 10 point font (single-spaced) and emailed as one electronic (Word or .pdf) file (titled "honors option book review <first and last name> <study abroad country>") to the Lead Instructor within 4 weeks of the completion of the program. (Failure to meet a pass grade for the assignment(s) and/or submit the assignment(s) by the due date may result in an incomplete grade.) Include the date, as well as your first and last name on the header of the file. You will be expected to include external citations (which must be fully referenced), and to write in a well-executed, grammatically correct style.

Book review

There are many great books that cover in greater depth the topics we will cover in this course or relate the field of animal behavior to other fields. You may read a book of your choosing; however, your choice of book must be approved by the instructor in advance. A list of pre-approved titles follows. The objective is to have you read a book that you might not choose otherwise and that complements the themes of animal behavior, evolution, human welfare, or the natural history of the animals and people of Australia and New Zealand. After reading your selected book, you must write a professional quality book review [not a book report]. That is, you must summarize the objective of the book, its key arguments, and critique them in the context of what you have learned in your class. If you are not familiar with professional book reviews, I advise you to look at some online or in a journal [journals often publish book reviews]; however, be careful not to plagiarize. I expect that you will read the book and that your review will be your own intellectual work. I will scrutinize book reviews heavily for evidence of plagiarism. Your grade on your

book review will be determined by the thoroughness and depth of your review. You are free to express your own opinion and it will be respected.

List of pre-approved readings for book reviews

Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature - D. J. Buller The Altruism Equation: Seven Scientists Search for the Origins of Goodness - Lee A. Dugatkin Animal Minds - Donald Griffin

The Ape and the Sushi Master - Frans De Waal

Are We Smart Enough to Know How Smart Animals Are? - Frans De Waal

The Beak of the Finch - Jonathan Weiner

The Biology of Traditions - D. Fragaszy and S. Perry

Cheating Monkeys and Citizen Bees - L. A. Dugatkin

Chimpanzee Politics - Franz De Waal

Cognition in the Wild - E. Hutchins

Evolution for Everyone - David Sloan Wilson

Ghosts of Gondwana - George Gibbs

Good Natured: The Origins of Right and Wrong in Humans and Other Animals - Frans De Waal

Guns, Germs and Steel - Jared Diamond

If a Lion Could Talk: Animal Intelligence and the Evolution of Consciousness - Stephen Budiansky

The Imitation Factor: Evolution Beyond the Gene - Lee A. Dugatkin

The Kookaburras' Song: Exploring Animal Behavior in Australia – John Alcock & Marilyn Hoff Stewart The Lost World of the Moa: Prehistoric Life of New Zealand – Trevor Worthy and Richard Holdaway Why Zebra's Don't Get Ulcers - Robert M. Sapolsky

Policy for Make-up of Assignments

Because of the nature of this course and the tight schedule, assignments are not accepted late without prior approval from the instructor.

Grading Policy

Final grades will be assigned as follows:

- Α 93 -100 percent A-89.5 – 92.9 percent B+ 87 - 89.4 percent В 83 - 86.9 percent B-79.5 - 82.9 percent C+ 77 - 79.4 percent С 73 – 76.9 percent C-69.5 - 72.9 percent
- D 59.5 69.4 percentF below 59.4 percent

Course itinerary

Refer to the sample itineraries available online. Final itineraries will be distributed on arrival in-country or contact the office for the most recent version.

^{*}Books not on this list may only be used if approved in advance by the instructor.

Mental Health and Wellness Resources

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach; they will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services. UGA has several resources for a student seeking mental health services or crisis support. If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center. Additional resources can be accessed through the UGA App.

Accommodation Policy

If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with the Disability Resource Center (Voice: 706-542-8719 or TTY: 706- 542-8778 or web: https://drc.uga.edu/) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

FERPA Notice

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. See the <u>registrar's explanation</u>