

G'Day and Welcome to the UGA Maymester Study Abroad in Australia and New Zealand

Animal Behavior

BIOL/WILD 3700 (3 credits)

This is a sample syllabus intended as a general guide only and deviations may be necessary (a final syllabus will be included in the course-book or available by contacting the office)

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Course Description

Behavior is one the most important and interesting aspects of animal biology. Behaviors permit flexibility that allows animals to respond rapidly to environmental changes. This course uses an immersive and adventurous experience against the backdrop of Australia' Great Barrier Reef and the Outback at Carnarvon Gorge, and New Zealand's Fiordlands, Southern Alps, and marine life 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, *Sustaining Human Societies and the Natural Environment*, this course affords students opportunities to understand how human societies have been shaped by and affected local ecology including the use and management of animals.

Course Objectives

By the end of the program students will:

1. Analyze theories and evidence for understanding behaviors as traits that evolve.
2. 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.
5. Conduct yourself in a manner consistent with Discover Abroad's Professional, Academic, and Ethical Code of Conduct (refer to the *Program Manual* for a description and course-related implications).

This will be an intensive course, with a significant structured and independent workload. Activities will require physical exertion in various climates. The course will span a broad climatic gradient, so will require students to bring an efficient amount of appropriate gear. The course requires a significant amount data processing and writing, so students are strongly encouraged to bring a laptop, netbook or etablet. Note: Electronic devices are not required and the course accepts no responsibility for lost or stolen items. We recommend that students who bring devices consider purchasing insurance for those items before bringing them on the course.

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

Course Credit

Credit is offered for 3 semester hours at the undergraduate level (3700) in any of the following

BIOL Biology
WILD Wildlife

Honors Option Credit

Honors students may obtain honors credit for 3720 with an Honors Option. Please follow these steps:

1. Download and complete the Honors Option Application form (the instructor must sign this) (https://honors.uga.edu/forms/current_students/courses_and_adv/honors_option_app.pdf)
2. Submit Part I of the form to Moore College for Honors program approval prior to the start of your study abroad course. You need to complete one form for each course.
3. There are additional requirements for Honors Option credit. See "Additional Course Assignment for Graduate Credit and Honors Option Credit" below.
4. Complete Part II of the Honors Option form at the end of your course after submitting your additional Honors requirement to your professor. Your instructor must sign off on Part II and submit the form to the Honors program (honors@uga.edu) for approval, Fax: 706.542.6993.

Prerequisites

BIOL 1108 or equivalent or permission of instructor.

Attendance

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 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. 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 or the program director, 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, at the discretion of the Program Director, be grounds for dismissal from the program.

Late and Missed Assignments

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

Academic Honesty

All academic work must meet the standards contained in the University's Culture of Honesty policy (www.uga.edu/honesty). All students are responsible for informing themselves about those standards before performing any academic work. The penalties for academic dishonesty include (but are not limited to) award of a failing grade for the course, suspension, notification placed on the student's transcript of their having been found guilty of cheating, and expulsion from the university, and ignorance is not an acceptable defense. Academic dishonesty will be reported to the University Academic Policy Panel.

Special Accommodations

Any student(s) who require special accommodation(s) or other requirements in this course must contact the instructor before or at the UGA on-campus orientation and register with UGA Disability Resource Center (www.drc.uga.edu). Some activities include moderate exercise, such as hiking and snorkeling.

Course-book

You are required to bring a laptop or notebook with Microsoft Word software (ipads, kindles, or other similar electronic reading devices are not acceptable for course assignments). The course-book will be provided electronically via jump drive, which is available for purchase at Bel-Jean's Copy/Print Service, 163 East Broad St, Athens, GA 30601. To purchase, please order online from <http://www.bel-jean.com/study-abroad-uga.php>, via phone at 706.548.3648 or via email at campusrep@bel-jean.com. An optional hardcopy is also available, though not required. 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.

Optional Reading

For pre-departure (optional) reading, we recommend:

- Bryson, B. (2000). *In a sunburned country*. New York: Broadway Books.
- Clarke, M. (1970). *For the term of his natural life*. Adelaide: Rigby, Seal Books.
- Diamond, J. (1998). *Guns, germs, and steel: The fates of Human societies*. New York: W.W. Norton & Company.
- Hughes, Rr. (1987). *The fatal shore: The Epic of Australia's founding*. New York: Alfred A. Knopf Inc.
- Ihimaera, W. (1987). *The whale rider*. Orlando: Harcourt Books.
- Hulme, K. (1986). *The bone people: A novel*. Washington D.C.: Penguin Books.
- Low, T. (2002). *The new nature: Winners and losers in wild Australia*. Camberwell, Australia: Viking Australia.
- Morehead, A. (1966). *The fatal impact: The invasion of the South Pacific, 1767-1840*. London: Hamilton.

Pilkington, D. & Garimara, N. (1996). *Follow the rabbit proof fence*. St. Lucia, Australia: University of Queensland Press.

Rose, D. (1992). *Dingo makes us human: Life and land in an Aboriginal culture*. Cambridge: Cambridge University Press.

Shute, N. (1950). *The legacy (a town like Alice)*. New York: Morrow.

Course Requirements

1. Pre-arrival reading quizzes (20%)

It is simply impossible for us to cover all the essential material in lectures and activities, so students in this course must complete the required readings before arrival at our destinations and before participating in activities. Pre-arrival quizzes 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 quizzes. Quizzes will be due before or immediately upon arrival at the destination. Quizzes will not be accepted after arrival.

2. Written field exercises (30%)

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

3. Essays (20%)

You will be asked to write three short essays. These essays are intended to test your ability to apply what you have learned, and help you hone your writing skills. Specific instructions will be given for each essay. You will write Essay 1 independently, and you will have the option to write Essay 2 individually or as a group. You will have the opportunity to critique and revise essays.

4. Final exam (30%)

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

Additional Assignment for Graduate or Honors Option Credit

Graduate 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. (2) Completion of (a) a faculty research profile and (b) a book review, both of which must be typed in Arial 9.5 point font (single-spaced) and emailed as one electronic (Word or .pdf) file (titled "graduate credit <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.

Faculty profile

The purpose of the faculty profiles is to expose interested students to the research programs of scientists at UGA or in Australia and New Zealand whose work is related to the broad field of animal or human behavior. To complete the profile, the student must research a person including their stated interests, background, and research including reading at least 3 related papers published by the person. It is important to read the papers in advance of the interview, but the student may want to solicit some recommendations from the researcher on which papers to read. Next, the student should conduct an interview with the scientist (in person, via phone or Skype). The interview should cover the researcher's background (current position, where they went to school, degrees held, professional history, etc...), their research foci [current and historic, what a major questions they address] including the papers the student read, details about a current research project [objectives, questions, methods, current findings, future directions], and what does the faculty member feel are their major contributions to their field. The student is free to cover any additional topics they desire.

After completing the interview, the student must write a biographical sketch about the researcher. This should introduce the person and give the relevant background information. Next, describe and critique the person's research program including describing the major questions or topics that motivate the research, examples of different research projects including those covered by the papers and discussed in the interview, and the significant contributions that person has made to their field. There is no required length on profiles; however, they are expected to be around 2000 words.

Book review

There are a number of 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
The Beak of the Finch - Jonathan Weiner
The Biology of Traditions - D. Fragaszy (UGA faculty) and S. Perry
Biophilia - Edward O. Wilson
Cheating Monkeys and Citizen Bees - L. A. Dugatkin
Chimpanzee Politics - Franz De Waal
A Concise History of New Zealand – Philipa Mein Smith
Cognition in the Wild - E. Hutchins
Evolution for Everyone - David Sloan Wilson
The Fatal Shore: The Epic of Australia's Founding – Robert Hughes
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

Homicide - M. Daly and M. Wilson

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

The Malay Archipelago – Alfred Russell Wallace

Tales of a Shaman's Apprentice - Mark J. Plotkin

Why Zebra's Don't Get Ulcers - Robert M. Sapolsky

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

Grade Assessment

Final grades will be assigned as follows:

A	93 –100 percent
A-	89.5 – 92.9 percent
B+	87 – 89.4 percent
B	83 – 86.9 percent
B-	79.5 – 82.9 percent
C+	77 – 79.4 percent
C	73 – 76.0 percent
C-	69.5 – 72.9 percent
D	59.5 - 69.4 percent
F	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.