Welcome to the UGA Maymester Study Abroad in Australia and New Zealand
Natural History of the South Pacific
BIOL(FANR) 3460 (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

This course explores the native flora and fauna of Australia, New Zealand, and/or other islands of the South Pacific. With extensive field trips into forests, coral reefs and other unique habitats, we will explore the natural history of the plants and animals of this region as well as how they interact with one another. We will also examine how the geology, climate, and peoples of the region have shaped the ecology and evolution of the organisms and how changing climatic conditions may affect them in the future. The course will involve a mix of extensive fieldwork, lectures, and independent projects and, because it is offered in conjunction with FANR 4271, Sustaining Human Societies and the Natural Environment, students will understand how human societies have been shaped by and affected nature.

Course Objectives

The following topics will be covered:

1. Tropical Rainforest
   a. What defines a “Rain Forest”?
   b. What characterizes a tropical forest?
   c. Why are they important?
   d. Why is the biodiversity of tropical rain forests higher than that of most terrestrial environments?
   e. How are nutrients and energy cycled in a rain forest?
   f. What adaptations have evolved in plants and animals that allow them to succeed in this environment?
   g. How are changing climatic conditions and patterns of land use affecting the rain forests of the South Pacific?
2. Coral Reef
   a. How are coral reefs formed?
   b. Why are they important?
   c. Why is the biodiversity of coral reefs higher than that of most marine environments?
   d. How are nutrients and energy cycled in a coral reef?
   e. What adaptations have evolved in plants and animals that allow them to succeed in this environment?
   f. How are changing climatic conditions and patterns of land use affecting the coral reefs of the South Pacific?

3. Temperate and Alpine Forests
   a. What distinguishes a temperate forest from a tropical forest?
   b. How does the biodiversity of temperate forests compare to that of tropical rain forests?
   c. What adaptations have evolved in plants and animals that allow them to succeed in this environment?
   d. How are changing climatic conditions affecting the temperate forests of the South Pacific?

4. Scrublands and Bush (Outback)
   a. What distinguishes a scrubland from a forest?
   b. How does the biodiversity of scrublands compare to that of forests?
   c. What adaptations have evolved in plants and animals that allow them to succeed in this environment?
   d. How are changing climatic conditions affecting the dryer regions of the South Pacific?

5. Biogeography
   a. How does the geology of a place affect the distribution and evolution of organisms?
   b. Why are some plants and animals considered to be “living fossils”?
   c. What is meant by the term “Island Biogeography” and how is it applied to Australia, New Zealand, and the islands of the South Pacific?

Course Credit

Credit is offered for 3 semester hours at the undergraduate level (3460) in BIOL(FANR).

Prerequisites

BIOL 1107/L and BIOL 1108/L or permission of instructor.

Graduate and Honors Option Credit

There is no graduate version of this course. If you wish to take the honors version of this course, please be aware of the following project that is required (further direction to be given in person). Students registering for BIOL 3460H will be required to keep a daily journal documenting the observation of the behavior of some animal or animal/plant interaction that they observed that day. Observations must detail the organisms involved, the location and time of day, and interpretation of the animal behavior.
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 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 (refer to the Program Manual for further details).

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 and resources


3. 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 and PowerPoint software, software to open .PDF files (e.g. Adobe Acrobat) and software to play various video formats such as .MP4 and .FLV files. I-pads, kindles, or other similar electronic reading devices are not acceptable for course assignments. There are a
number of recorded Powerpoint presentations and short videos that will be assigned during the course. You will be expected to have viewed these as well as required readings. Materials from the presentations, videos, and readings are meant to assist you in preparing the field modules, quizzes and final exam. 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:

- The Future Eaters: An Ecological History of the Australasian Lands and People by Tim Flannery
- Country: A Continent, a Scientist & Kangaroo by Tim Flannery

Course Requirements

Species presentation (10%)

Before leaving the U.S. you will each be assigned an organism (plant, animal, fungus, protist, bacterium, or virus) that is common to the South Pacific and that we may encounter during our travels. At some point during the course (beginning with our first location) you will be asked to give a 15 minute presentation on your individual organism. Your presentation should be in PowerPoint and a copy of the presentation will be turned in to the instructor. Your presentation is to be authoritative, that means more than just what is on Wikipedia (although that is a good place to start). Tell us everything you can about it. Where is the organism commonly found? Is it rare or common? What does it eat? What eats it? What is its importance to the ecosystem? Does it depend on other organisms in a unique way? What is its evolutionary history? How does it interact with, or affect humans? If the organism is not native to Australia or New Zealand why did we include it on the list? What is special about it? What ecological role does it play? Is it dangerous? Cute? Both? You will be required to provide a copy of your presentation and/or notes complete with references used. An example presentation can be found with your class materials.

Since internet access will be limited when abroad it is important that you complete the research portion of the assignment before leaving the U.S.

Field modules (63%)

The field modules are location-based questions to be answered as individually written 250-word essays, peer-reviewed essays, group debates, and/or research projects (due at intervals throughout the program – see the Itinerary). Refer to the Field Modules Introduction and Overview for details on assessment expectations and submission requirements for each of the various forms of modules.

Field projects/quizzes (17%)

Throughout the course we will be joined by resident naturalists who are experts in the natural history of New Zealand and Australia. In some cases they will have specific projects that will be done in the field. In addition the first day when we arrive in a new location you will be given a short quiz that covers material and information that was presented at the previous location. Together the grades of these quizzes and the field projects will constitute 20% of your grade.

Final exam (10%)
The final exam may draw material from any reading, field exercise, lecture, or discussion, and you may refer to your notes from lectures and field activities. Approximately 60% of the exam will be short, objective (completion, multiple choice, t/f, etc.) questions drawn from lectures, field experiences, or readings, and 40% percent of the exam will be essay based. Date as listed on the itinerary.

**Grade Assessment**

Final grades will be assigned as follows:

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<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tr>
<td>A</td>
<td>93 – 100 percent</td>
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<tr>
<td>A-</td>
<td>89.5 – 92.9 percent</td>
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<td>B+</td>
<td>87 – 89.4 percent</td>
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<td>B</td>
<td>83 – 86.9 percent</td>
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<tr>
<td>B-</td>
<td>79.5 – 82.9 percent</td>
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<tr>
<td>C+</td>
<td>77 – 79.4 percent</td>
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<td>C</td>
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<td>C-</td>
<td>69.5 – 72.9 percent</td>
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<td>D</td>
<td>59.5 - 69.4 percent</td>
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<td>F</td>
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**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.