ANTH 322: Method and Theory in Ecological Anthropology

Fall 2016

Tuesdays and Thursdays 9:30-10:45 am

Dr. Sean S. Downey

Department of Anthropology

University of Maryland

****PLEASE NOTE (8/9/16): Content is subject to revision****

Class Location: Woods Hall, Rm. 1114
Brief Description

This course is a broad exploration of the field of ecological anthropology, focusing on issues related to cooperation, the management of common property, sustainability, and complex interactions in coupled human and natural systems. The learning objectives for the course are to help students acquire an understanding of the strengths and weaknesses of competing approaches to the question of the relationship of ecology to the social world. In doing this, you will come to understand how societies from across the world achieve sustainability, and also what has caused environmental collapse. On the natural science side, the major approaches to be considered are behavioral ecology and systems ecology. From the social sciences, we will explore the methods of sociocultural anthropology, evolutionary game theory, cognitive models, agent-based modeling, and political ecology. Case studies will draw on the ethnology and archaeology of Indonesia, Africa, Europe and Latin America.

Why combine anthropology and ecology in a single course? Traditionally, social scientists study social systems, and natural scientists study ecosystems. But many of the most pressing problems of our time have to do with the relationship of human societies to the natural world. There is now abundant scientific evidence that humanity is living unsustainably, and “sustainability science” is emerging as a high priority for research and education. In this course, we will consider the strengths and weaknesses of the three major competing approaches to the study of humans and the environment: systems ecology, behavioral ecology, and political ecology. How do these approaches differ? Systems ecology focuses on the flow of energy and information in ecosystems, at scales ranging from a single organism to the planet as a whole. This is also the starting-point for investigating the resilience and robustness of ecosystems. In contrast, behavioral ecology uses the theory of natural selection to analyze the fitness benefits of social behaviors, like cooperation and competition. Finally, political ecology addresses questions about governance, power, institutions, and social inequality.

The best way to learn how to use these analytical tools is to see how they have been used to investigate specific cases. In addition to a core textbook on ecological anthropology Human Adaptability (Moran), we will read two classic ethnographies, The Dobe Ju/'hoansi (Lee) about African hunter-gatherers, and Priests and Programmers (Lansing) about Balinese rice-farmers. So while you are learning about ecological anthropology, you will also be introduced to the ethnology of these and other regions. The course is very carefully organized to maximize your learning opportunities. As you are about to discover, in addition to lectures, the course incorporates participatory activities: discussions, ethnographic films, and exercises in agent-based modeling (ABM). Finally, there is a semester-long process designed to help you write an excellent research paper. The key to success in this course is to pay very close attention to the instructions for your assignments, and to keep a close watch on the course website on ELMS for deadlines.

This course is part of the Chesapeake Project which means it contributes a growing curriculum about sustainability at UMD. The learning objectives in this course with respect to sustainability are (1) to be able to recognize and explain how individual actions can contribute to the emergence of sustainability at aggregate social levels, and the conditions necessary for this to occur; and (2) to become familiar with examples of western and non-western cultures that have coped successfully (and unsuccessfully) with sustainability.

Textbook(s)


NOTE: All the books are available through the UMD bookstore or online. However, they appear to be available online at substantially lower
NOTE: All the books are available through the UMD bookstore or online. However, they appear to be available online at substantially lower costs.

**Attendance Classroom Participation**

Except for a few exceptional weeks I will lecture on Tuesdays, and on Thursdays we will hold discussions or laboratory exercises designed to enhance your understanding of the course materials. Active participation is required during lectures by preparing in advance by reading the assigned materials. Throughout the course (and on no particular schedule; i.e., a simple radon sample) I will pass around sign-in sheets which will count towards classroom participation. You are required to sign next to your printed name to verify that you have attended class and this record will count towards your participation grade.

**Discussions Sections**

The course includes a series of discussion sessions, typically on Thursdays. You are responsible for bringing 2-3 thoughtful questions that pertain to the course materials for your group to discuss. You will break out into groups of 4-5 and your group you may choose to identify a discussion leader for the day. Your responsibility is to have an intelligent discussion and the group leader will summarize the discussion and present it to the class. Each student should present to the class at least once or twice during the semester.

After each Discussion section you are required to submit the following items to ELMS: (1) the questions you prepared for class, and (2) a paragraph synthesis of your group’s discussion highlighting key definitions, and areas of agreement and disagreement. Your Synthesis should consist of 5-6 substantive sentences, but no more than 1 page and be uploaded in text format to the appropriate ELMS assignment (Discussion Section).

**Research Project**

The course includes a major research project. Please refer to the Research Project page for details. ([https://myelms.umd.edu/courses/1198406/pages/research-project](https://myelms.umd.edu/courses/1198406/pages/research-project))

**Pre-requisites**

Students in this course are assumed to understand basic concepts in evolution and natural selection. Acceptable pre-prerequisites are ANTH 222, ANTH 220 or equivalent. If you have not taken one of these courses you may still take the course with permission from the instructor.

**Cellphone and laptops in the classroom**

Texting, email, and web-surfing (Facebook, etc.) is unacceptable during class. It disrupts me, and thereby, the rest of your classmates. If I find you violating this rule you will be asked to leave. Electronic devices may be used for note-taking only.

**Honor Pledge**

From the [2016-17 UMD Undergraduate catalog](http://www.umd.edu/catalog/index.cfm/show/content.section/c/27/ss/1583/s/1604):

In 2002, the University adopted an honor pledge in which students are asked to write out and sign the pledge on major assignments and exams, as designated by the instructor. The Honor Pledge is designed to encourage instructors and students to reflect upon the University’s core institutional value of academic integrity. Professors who invite students to sign the Honor Pledge signify that there is an ethical component to teaching and learning. Students who write by hand and sign the Pledge affirm a sense of pride in the integrity of their work. The Pledge...
Proper Citation and plagiarism

Plagiarism of any kind will not be tolerated and will result in a failing grade for the course. Provide citations for everything. Credit directly quoted and paraphrased words of others as well as sources of information. This includes internet sources as well.

If you have any questions about proper citation, please refer to the library help page or ask me:

http://www.lib.umd.edu/ues/guides/citation-tools

The UMD Code of Academic Integrity can be viewed online

http://www.president.umd.edu/policies/iii100a.html

Incompletes

Incompletes should be reserved for extreme emergencies that prevent the completion of course assignments toward the end of a school semester. It is very difficult to make up course assignments from a previous semester once a new semester begins, and students are often not able to prevent an Incomplete grade from lapsing into an F before the assigned deadline. If you think it is necessary to apply for an Incomplete grade due to an end of semester emergency, please contact the instructor immediately to arrange for a new submission date for the incomplete work and to fill out the proper paperwork. The instructor reserves the right to refuse an Incomplete grade to any student.

Late assignments

Always alert the instructor ahead of time if you think that you may not be able to submit an assignment on time to make alternative arrangements. Unless permission has previously been received from the Instructor, late assignments will only be accepted under extreme circumstances and with official documentation (e.g., a doctor’s note), and if accepted, will be subject to a 5% per day point deduction.

Special Needs

If any student has any special study or test-taking needs (e.g., test anxiety, dyslexia, poor vision or hearing, special seating requirements, etc.), please let me know as soon as possible so that we can make your participation in this course a rewarding one. In addition, I will make students aware of special services/facilities on this campus that might be of assistance in the course of your studies here at UMCP including Disability Support Services (http://www.counseling.umd.edu/DSS/) and the University Counseling Center (http://counseling.umd.edu).

Religious Observance

Effort will be made to avoid scheduling assignments with major religious holidays. However, it is the student’s responsibility to inform the instructor of any intended absences for religious observances other than those listed on the UMD website in advance (http://www.faculty.umd.edu/teach/attend_student.html#religious). Prior notification via the ELMS Messaging is required by the end of the second week of class.
Copyright

All course materials (presentations, exams, handouts, labs, etc. in digital or paper format) are subject to copyright protection and may only be used for personal use. Course materials must not be distributed without permission of the instructor.
Course Syllabus

Jump to Today  Edit

Key: Lectures, Discussions, Assignments due, and Laboratories

Detailed Research Project Instructions here.

Week 1 (8/30, 9/1) - Introduction to Ecological Anthropology. Lecture T & Th (Moran c1-2; Steward 1955 is Optional)

Week 2 (9/6, 9/8) - Introduction to Ecological Anthropology. T Discussion; Th Lecture (Moran c3-4).

Week 3 (9/13, 9/15) - African forager behavioral ecology I. Moran c7; Lee c1-2, c4; (OPTIONAL/Skim: Knight 2003)


Week 5 (9/27, 9/29) - Cooperation and evolutionary game theory. Hardin 1968

Week 6 (10/4, 10/6) - Agriculture, demographic growth, and societal collapse. Diamond 1995

Week 7 (10/11, 10/13) - Systems, regulation, and adaptation. Crutzen 2002
Assignments Summary:

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<tr>
<th>Date</th>
<th>Details</th>
<th>Due by</th>
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<tr>
<td>Tue Sep 13, 2016</td>
<td>Discussion Week 2 (<a href="https://myelms.umd.edu/courses/1198406/assignments/4241817">https://myelms.umd.edu/courses/1198406/assignments/4241817</a>)</td>
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<td>Tue Sep 20, 2016</td>
<td>Discussion Week 3 (<a href="https://myelms.umd.edu/courses/1198406/assignments/4241816">https://myelms.umd.edu/courses/1198406/assignments/4241816</a>)</td>
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<td>Tue Sep 27, 2016</td>
<td>Discussion Week 4 (<a href="https://myelms.umd.edu/courses/1198406/assignments/4241815">https://myelms.umd.edu/courses/1198406/assignments/4241815</a>)</td>
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<td>Tue Oct 4, 2016</td>
<td>Prisoner's Dilemma Lab (<a href="https://myelms.umd.edu/courses/1198406/assignments/4241823">https://myelms.umd.edu/courses/1198406/assignments/4241823</a>)</td>
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Week 13 (11/22, Thanksgiving is 11/24) - T The Balinese Would Like a Word; (http://mtsms.unm.edu/Mediasite/Play/72639b631814595867391ea8a0a12d1d?catalog=f6e4c48c53-cdd9-432f-ad7-85d9556d6020). Th no class.

Week 14 (11/29, 12/1) - The subaks of Bali 2. Lansing c3-6; pp. 117-124 and Appendix B; T Short lecture & Discussion (no writeup due); Th Bali Subak Simulation Lab (https://myelms.umd.edu/courses/1198406/assignments/4241822).


Week 16 (Exam Week) - Research paper due Tuesday, Dec. 15, 10AM upload here. (https://myelms.umd.edu/courses/1198406/assignments/4241824). There is no in-class final exam.
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<td>Thu Oct 6, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241821">Peer Review Workshop #1</a></td>
<td>8:30am</td>
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<td>Thu Oct 20, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241825">Research Project Draft</a></td>
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<td>Thu Oct 27, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241820">Daisyworld Simulation Lab</a></td>
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<td>Tue Nov 1, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241813">Discussion Week 9</a></td>
<td>8:30am</td>
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<td>Tue Nov 8, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241812">Discussion Week 10</a></td>
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<td>Tue Nov 15, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241811">Discussion Week 11</a></td>
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<td>Tue Nov 22, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241822">Peer Review Workshop #2</a></td>
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<td>Thu Dec 8, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241818">Bali Subak Simulation Lab</a></td>
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<td>Thu Dec 15, 2016</td>
<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241824">Research paper</a></td>
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<td><a href="https://myelms.umd.edu/courses/1198406/assignments/4241819">Course Participation</a></td>
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