Anthropology / Environmental Studies 130A
Coupled Human and Natural Systems:
Risk, Vulnerability, Resilience, and Disasters
Fall Quarter 2012

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Course Description
This is the first of a three quarter sequence of cross-listed courses (130A, B, and C) that examines the human dimensions of global environmental change from an interdisciplinary social science perspective.* While not required for the following courses in the sequence (130B and 130C), ANTH/ENV S 130A provides the intellectual foundation for those courses, and students who intend to take 130B and 130C are strongly encouraged to register for 130A. ANTH/ENV S 130A introduces, compares, and contrasts several alternative conceptual and analytical models of coupled human and natural systems (aka social-ecological systems) and discusses recent approaches to understanding disasters, risk, vulnerability, and resilience. This course is particularly concerned with revealing the complex interactions between human and natural systems; acquainting students with several UCSB faculty currently engaged in research and teaching focused on understanding and enhancing coupled human-natural systems. A major goal is to have students understand environmental problems from an interdisciplinary perspective rather than from a narrowly bounded single discipline point of view. This multivariate view includes approaches from the social sciences and humanities (pre-historical, historical, social, cultural, economic, and political factors) as well as those from the biophysical sciences (biological, physical, human demographic, and environmental factors). UCSB is fortunate to have several faculty engaged in this kind of cutting-edge research and instruction. These professors are housed in different divisions and several departments across campus. Another major objective of this course is to provide students with the opportunity to become more aware of these UCSB faculty members, their research, and the courses they teach. Accordingly, I have invited several UCSB faculty members to present lectures in this course. These lectures are fully integrated into the course structure and logic and are not optional. You are expected to attend ALL guest lectures and to read the required texts.

ANTH/ENV S 130A is divided into three main sections. The introductory segment of the course (Part 1) presents the important concepts, issues, and perspectives necessary to achieve this understanding. The second part of this course (Part 2) introduces several recent cross-disciplinary approaches through the work of UCSB faculty. The last section (Part 3) of the course centers on new approaches to understanding and dealing with disasters, risk, vulnerability, and resilience from an environmental social science and cultural perspective, including interdisciplinary trends in the political ecology of vulnerability and disasters as advocated by a number of geographers, anthropologists, and others. One of the major objectives of this course is to train students in interdisciplinary perspectives and approaches in order to better understand and deal with crucial real world problems stemming from the complexity of linked human-environmental systems

*ANTH/ENV STUDIES 130A, B, C. UCSB Catalog Course Descriptions:
- ANTH/ENV S 130A - Coupled Human and Natural Systems: Risks, Vulnerability, Resilience, and Disasters (4 units) Prerequisites: Anthropology 2 or Environmental
Studies 1 or 3. Same course as Anthropology 130A. Examines human dimensions of global environmental change from an interdisciplinary social science perspective. Compares and contrasts alternative conceptual and analytical models of dynamic, interrelated human-environmental systems and presents recent approaches to understanding risk, vulnerability, resilience, and disasters.

- ANTH/ENV S 130B - Global Tourism and Environmental Conservation (4 units) Focus on the contradictions between international tourism as an economic development strategy and environmental conservation efforts, especially in an era of climate change. One major objective is to help students make more informed decisions about their own tourist experiences.

- ANTH/ENV S 130C - Global Food Systems and Human Food Security (4 units) Examines history of global food system and its impacts on ecosystems, ecologies, and human nutrition and food security. How agricultural, capture fisheries, and aquacultural industries were integrated into the global food system. Provide information to make more informed decisions about consuming these products.

**Evaluation and Grades**

YOUR GRADE IN THIS COURSE WILL BE DETERMINED BY THREE EXAMS, ATTENDANCE, AND PARTICIPATION IN DISCUSSION SECTIONS:

1. Exam 1: An in-class exam on October 23 (20%)
2. Exam 2: A take-home exam due on November 20 (30%)
3. Exam 3: An in-class final exam on December 12 (30%)
4. Attendance and participation in discussion sections (20%)

**TOTAL 100%**

I will distribute an assignment sheet for the take-home exam (a research/library assignment) on Oct 25. The two in-class exams may include all materials covered in lectures, films, discussions, and the required texts. The exams may consist of a number of different types of questions: multiple-choice, True/False, short answer, and/or essay. I expect you to attend every class period, complete the readings, and participate in class discussions. There may be quizzes based on the reading assignments and other material – especially if I feel that you have not been completing the readings. Your discussion section grade will be determined by your TA, subject to my approval, on the basis of the discussion section syllabus he distributes to you.

**Grading Policy:**

<table>
<thead>
<tr>
<th>Overall Percentage</th>
<th>Grade</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>88-89</td>
<td>B+</td>
<td>Very good</td>
</tr>
<tr>
<td>80-87</td>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>78-79</td>
<td>C+</td>
<td>above average</td>
</tr>
<tr>
<td>70-77</td>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>60-69</td>
<td>D</td>
<td>Poor</td>
</tr>
<tr>
<td>59 and below</td>
<td>F</td>
<td>Unsatisfactory</td>
</tr>
</tbody>
</table>

Percentages with X.5% or higher will be rounded off to the next highest figure. For example, if you have a percentage of 69.5%, it will be rounded off to 70% and you will have earned a C in the course. If you have a percentage of 69.4%, you will have earned a D in the course.
Course Policies

- **Normal classroom etiquette is expected**, that is, respect should be shown to the professor and to your fellow classmates. This means that during class you will not work on assignments for other classes, read books or newspapers, do Sudoku or crossword puzzles, be online unless assigned for this class, and you will turn off all cell phones and not engage in text messaging. You may not videotape or audio tape class lectures without my explicit permission.

- **Students are responsible for** (1) all assigned readings, (2) all material covered in class, (3) any additional outside readings that may occasionally be assigned, and (4) any films and/or guest lectures included as part of the course curriculum.

- Every student is responsible for all material covered in class when absent. Contact fellow students to get missed assignments and notes, etc., BEFORE the next class.

- **Late papers or other assignments are NOT accepted.** The only exception to this policy is a University-excused absence.

- **Make-up exams will ONLY be given with a University excuse and notification of the professor BEFORE the exam** is taken by the class. (As examples, sleeping through an exam or breaking up with a girlfriend or boyfriend the night before the test are not good things, but they are also NOT a University excused absence and you will NOT BE ALLOWED to take the make-up exam).

- **All make-up exams will be given during final exam week at a stipulated time TBA.**

- I expect you to come to every class and I reserve the right to take attendance for any class. **An automatic F will be given any student who has 5 or more absences from lecture OR discussion sections for the quarter.** Students who come to class but sleep during class are counted absent.

- **Any instances of cheating on exams, essays, or papers will result in an automatic F for the course** and the incident will be reported to the Dean of Students.

- I expect you to have a valid e-mail address with a UCSB domain name. If you do not have one, **GET ONE.** E-mail messages to me sent by yahoo.com, hotmail.com, and other servers sometimes are automatically deposited in my Spam Mail Folder.

**Academic Integrity Policy**

All students must complete original assignments with academic integrity. The use of others’ words or ideas as your own without adequate citation is plagiarism. This is unacceptable, and reportable under UCSB policy:

“Cheating includes, but is not limited to, looking at another student’s examination, referring to unauthorized notes during an exam, providing answers, having another person take an exam for you, etc. **Representing the words, ideas, or concepts of another person without appropriate attribution is plagiarism [emph. added].** Whenever another person’s written work is utilized, whether it be a single phrase or longer, quotation marks must be used and sources cited. Paraphrasing another’s work, i.e., borrowing the ideas or concepts and putting them into one’s “own” words, must also be acknowledged. Although a person’s state of mind and intention will be considered in determining the University response to an act of academic dishonesty, this in no way lessens the responsibility of the student.” [http://www.sa.ucsb.edu/Regulations/](http://www.sa.ucsb.edu/Regulations/) (2008)

When in doubt, cite the sources of ALL ideas in your work, including websites, blogs, reviews, articles, newspapers, as well as more scholarly references. Explicit formats for citation of different sources are described on the UCSB library website [http://www.library.ucsb.edu](http://www.library.ucsb.edu).

**Assigned Class Materials (I have tried to keep the cost of materials as low as possible for this course)**
There are two required textbooks for this course, which are available from different vendors and in different formats (and different prices). Additional required readings will be available either in texts that are on reserve at Davidson Library and/or posted on GauchoSpace. Use your UCSBnetID and password to login to GauchoSpace http://gauchospace.ucsb.edu. Your UCSBnetID is the same as your U-Mail account name.

Required Textbooks Available for Purchase:

- **People and Nature: An Introduction to Human Ecological Relations, by Emilio F. Moran, Wiley-Blackwell Publishing, 2006.** Also available in paperback from Amazon ($29.88) and in a Kindle version ($27.44). If you do not have a Kindle Reader you can download (free) a Kindle app for your PC, Mac, iPhone, iPad, Android, Blackberry device. This usually works fine in my experience - at least downloading to my iPhone, iPad, and PCs. (1 copy of the paperback is on reserve in Davidson Library.)
- **Disaster Culture: Knowledge and Understanding in the Wake of Human and Environmental Catastrophe, by Gregory Button, Left Coast Press, 2010.** Also available in paperback from Amazon ($27.95) and in a Kindle version ($15.37). (1 copy of the paperback is on reserve in Davidson Library.)

Required Readings on GauchoSpace:

- **Required Readings for Part 1 of the course are posted on GauchoSpace and are listed in the Course Schedule below.** Additional readings for subsequent weeks will be added throughout the quarter.

Course Schedule & Assignments

Note: I reserve the right to make changes to the syllabus and readings as the course proceeds and as needed. I will announce these changes in class. It is your responsibility to come to class so that you are informed about any changes.

DR = Davidson Reserve  GS = GauchoSpace

**Sep 27**  Course aims, organization, and expectations

**Part I  Overview of Key Concepts, Issues, and Perspectives**

**Oct 2**  Introduction to Coupled Human – Natural Systems

**Oct 4**  Introduction to key concepts, issues, and perspectives
- Lubchenco (1998) "Entering the century of the environment: A new social contract for science" (GS)
- Liu, Dietz et al (2007) "Coupled human and natural systems" (GS)
- Moran (2006) Chapter 1

**Oct 9**  The Many Waves of Globalization
- Young, Berkhout et al (2006) "The globalization of socio-ecological systems: An agenda for scientific research" (GS)
- Moran (2006) Chapters 3 to 4

**Oct 11**  Globalization of Coupled Human and Natural Systems – continued
- Moran (2006) Chapters 5 to 8
Oct 16  Video: *Out of the Past: The (Maya) Collapse*
- Diamond (2005) Chapter 5 “The Maya Collapse” (GS and DR)

Oct 18  Contending perspectives on the Maya "Collapse" – A sample of reviews of McAnany and Yoffee’s *Questioning Collapse*
- Diamond (2010) "Two views of collapse" (GS)
- Rex (2010) "Questioning Collapse" in The Savage Mind Blog (GS)
- McAnany and Yoffee (2010) "From the editors of *Questioning Collapse* requesting full disclosure and correction of factual errors" in *This Side of the Pond, The Blog of the Cambridge University Press, North America* (GS)

Oct 23  IN-CLASS EXAM 1

Part 2. UNDERSTANDING COUPLED HUMAN-NATURAL SYSTEMS: EXAMPLES OF RESEARCH AND PRACTICE

Oct 25 Perspectives of the National Research Council/National Academy of Sciences, Political Ecology, and Sustainability Science
- Stonich and Mandell (2007) "Political Ecology and Sustainability Science: Opportunity and Challenge" (GS)
- Turner and Robbins (2008) "Land-Change Science and Political Ecology: Similarities, Differences, and Implications for Sustainability Science" (GS)

Oct 30 Research and practice from the Social Sciences and Humanities
Dr. Barbara Harthorn, Director Center for Nanotechnology and Society, Professor Department of Feminist Studies.

Nov 1  Research and practice from the Social Sciences and Humanities – continued
Dr. David Carr, Professor Department of Geography.

Nov 6  Research and practice from the Social Sciences and Humanities—continued
Dr. Peter Alagona, Assistant Professor, Department of History and Environmental Studies Program.

Nov 8  Research and practice from the Social Sciences and Humanities – continued
Nicholas Williams, Ph.D. Candidate, Department of Anthropology.

Nov 13 Research and practice from the Social Sciences and Humanities – continued
Dr. Susan Stonich.
- Alexander and Stonich (2008) "Developing an Index to measure Vulnerability and Resilience: Helping Communities Cope with Climate-related Crises in the Mesoamerican Reef System" (GS)
Nov 15 Research and practice from the Social Sciences and Humanities - continued
Dr. Simone Pulver, Environmental Studies Program

Part 3. DISASTER CULTURE: KNOWLEDGE AND UNCERTAINTY IN THE WAKE OF HUMAN AND ENVIRONMENTAL CATASTROPHE

Nov 20 Take Home Exam 2 Due AT THE BEGINNING OF CLASS!

Nov 20 Emergent trends in thinking about disasters: risk, vulnerability and resilience
- Button (2010) Introduction and Chapters 1 and 2
- Stonich (2008) "International tourism and disaster capitalism: The case of Hurricane Mitch in Honduras" (GS)

Nov 22 THANKSGIVING HOLIDAY

Nov 27 Disasters, risk, vulnerability, and resilience - continued
- Button (2010) Chapters 3 to 5

Nov 29 Disasters, risk, vulnerability, and resilience - continued
- Film: A Village Called Versailles
- Button (2010) Chapters 6 to 8

Dec 4 Disasters, risk, vulnerability, and resilience - continued
- Button (2010) Chapters 9 to 11

Dec 6 Course wrap up and discussion

Dec 12 In-class Final Exam, 12-3PM