ENIRONMENTAL CONSERVATION

Geography/EnvSt 339

FALL 2014

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Course Description. In this course we study environmental conservation from a geographical perspective reviewing the biophysical, institutional, and socioeconomic dimensions of environmental problems in order to develop more effective conservation solutions. Environmental conservation is itself a social process. Thus we pay careful to how changes in values, scientific understandings of nature, economy and politics affect conservation practice. Not only will we trace the major debates in environmental conservation but will also explore how differences in people's biophysical, economic and political surroundings have led to different perceptions of environmental problems and their solutions.

Through this class, you will develop an understanding of the major approaches to environmental conservation, their relative strengths and weaknesses, and how they developed historically. While case material will come from around the world, we begin by gaining a sense of the history of environmental conservation thought and action in the United States. While different, there are many analogous transitions in the environmental histories of other countries and regions around the world. While we cannot go into detail – key themes that many world regions share will be brought up in lecture and discussion. A range of environmental issues will be touched upon in this course including: toxic waste, soil erosion, air/water pollution, mining impacts, grazing impacts, wilderness protection, and wetland mitigation.

Two large and cross-cutting environmental issues will be particular foci for this course: biodiversity and climate change. Aspects of biodiversity protection will be covered in the U.S. context by first covering different ideas and understandings of the need to protect wilderness followed by arguably one of the strongest rule-based conservation policies: the Endangered Species Act. Biodiversity conservation in all its forms (national parks to community-based approaches) in a developing world context will be the focus of weeks 9-11. Professor Naughton will guest lecture with lectures during this section of the class are closely linked to a role-playing exercise you will participate in within discussion section based on community-based conservation efforts in Tambopata, Peru. Climate change will be the second major focus with differential vulnerability and responsibilities covered in weeks 7-8 and various approaches to reduce GHG emissions and reduce vulnerabilities (in WI and elsewhere), the focus of material presented in weeks 13-15.

Learning Materials. Learning materials for this course include readings, on-line modules, and streaming videos. The required materials assigned for each week and unless otherwise stated, you should complete them prior to your discussion section meeting each week. All materials are available through the course’s moodle website (https://ay14-15.moodle.wisc.edu/prod/course/view.php?id=457). There is no course reader. For those of you who would like to consult or photocopy the required readings – packets are on 2-hour reserve in the Geography library (2nd Floor of Science Hall). Recommended materials are also listed for some weeks. These materials are only recommended for those of you that wish read further on a particular topic covered in lectures.
We have developed on-line modules covering conservation issues related to climate change. These modules are accessible through the course webpage. Following each module, you are expected to take a short 5-question quiz to assess your learning (maximum time allocation being 10 minutes). These modules cover: 1. Global variation in the vulnerability to climate change (week 7); 2. International climate change agreements and the metrics used to assign responsibility for reductions (week 8); and 3. Incentive based approaches to climate change mitigation, policies to support energy alternatives to climate change adaptation (weeks 13-15). In most cases, you will be expected to complete the module (and associated quiz) by the lecture period to which the module is tied. This is because we build from what we have learned in these modules to do group-based problem solving in lecture. The major exception to this is week 8 when there will be no lectures and the problem-solving activity will be conducted in discussion section.

Videos will also be used in this class. Some videos will be shown in lecture and others will be assigned as required viewing (see weeks 3 and 12). These can be accessed through links from our course webpage but please note that these videos can only be streamed on campus through a wired connection. They cannot be viewed off campus, nor can they be viewed with a wireless connection on campus. They CAN be viewed in any campus Computer Labs (also called ‘Infolabs’, for locations, see http://www.doit.wisc.edu/computerlabs/labs.aspx). BRING YOUR EARBUDS for the audio. Access to reserve videos is restricted to students in this course. Students may not copy, share, distribute or otherwise allow or facilitate any unauthorized access to the content or the passwords issued. Individuals who violate this provision will be subject to disciplinary action under the UW-Madison Academic and/or Non-Academic Misconduct Codes. Videos assigned as required reading will have study guides for assignments.

You will be tested on the material presented in lectures, videos, required readings and learning modules in exams. In your reading, focus on the author’s main arguments and the evidence s/he uses to support his/her arguments. Environmental issues are often controversial, so read critically.

**Grading.** Grades will be determined on the basis of a total of 300 points:

EXAMS: 150 points for two exams. The first exam (50 points), covering material during weeks 1-6, will be held during class on October 13\textsuperscript{th}. A final exam (100 points) during exam week will cover material during weeks 7-15. Exams will consist of multiple-choice, T/F and short answer questions. Students must take the exams at the scheduled dates/times. Make-up exams can only be arranged if Prof. Turner is notified in person in advance. All make-up exams will be composed primarily of essay questions.

ASSIGNMENTS AND PARTICIPATION: 150 points. Discussion section activities are critical parts of this course. There will be one major assignment out of section (Tambopata role play) along with a number of smaller assignments. In addition, your attendance and active participation in discussion and lecture are important. *Your grade will depend partly on how much you enhance the learning experience of your fellow students in discussion section and in lecture.* Therefore attendance is mandatory. A syllabus for your discussion section will be given to you at your first section meeting (week 2).

**Graduate students:** Graduate students who take this course will be assessed separately from other students in the course (exams and common work). In addition, extra work will be required. See Professor Turner for details.
**COURSE OUTLINE AND READINGS**

REQ = Required materials, content included on exams.
REC = Recommended materials offering greater depth on topic but not included on exams.

**WEEK ONE**

Sep 3 W – Course Introduction

**WEEK TWO**

Sep 8 M – Population and institutions

Sep 10 W Values and uncertainty: case of climate change (debating climate change)


**WEEK THREE**

Sep 15 M – European conquest and changing nature-society relations in North America

Sep 17 W – Manifest destiny, environmental transformation, and the early roots of conservation thought


**WEEK FOUR**

Sep 22 – Progressive Era conservation

Sept 24 Sustainable Development


WEEK FIVE

Sep 29 M – Our public lands

Oct 1 W – Environmentalism and the 1970s dawn of the environmental movement


WEEK SIX

Oct 6 – Environmental justice

Oct 8 – US consumption and the export of environmental harms


WEEK SEVEN

Oct 13 – Exam 1 (Weeks 1-6)

Oct 15 – Analyzing climate impacts in rich and poor countries

REQ: Online module. Climate justice: Climate impacts in developing countries

WEEK EIGHT (no lecture meetings)

REQ: Online module. Human greenhouse gas (GHG) emissions

REQ: Online module. International climate mitigation history: Kyoto’s fate

WEEK NINE

Oct 27 – Biodiversity overview. Global distribution and major threats

Oct 29 – Biodiversity crisis in Uganda. How colonial tea plantations helped create a ‘Malthusian squeeze’


**WEEK TEN**

Nov 3– From slash-and-burn to industrial agriculture - the quest for sustainability.

Nov 5– Is the Amazon like ‘Avatar’? Indigenous rights and gold mining

REQ: Nepstad et al 2004 “Inhibition of Amazon deforestation and fire by parks and indigenous lands” *Cons Bio.* 20:66-73

**WEEK ELEVEN**

Nov 10 – Sustainable logging in tropical forests – Reforming institutions and norms

Nov 12 – National parks and community-based conservation. Video excerpt: Return to Tambopata


**WEEK TWELVE**

Nov 17 – Incentive-based conservation revisited

Nov 19 – Direct payments for conservation

REQ: Video: *Milking the Rhino*. (First 41 minutes required, see Video Viewing Guide posted at Learn@UW for access information.)


**WEEK THIRTEEN**

Nov 24 – Market-based approaches to climate mitigation

REQ: Online module. Flexibility mechanisms of Kyoto
WEEK FOURTEEN

Dec 1 – Planning for climate change in Wisconsin
  
  **REQ:** Online module. Wisconsin climate impacts

Dec 3 – Choosing alternative energies for now and the future
  
  **REQ:** Online module. U.S. Energy alternatives without the hot air

WEEK FIFTEEN

Dec 8– Comparing rich country approaches: the U.S. vs. Germany
  
  **REQ:** Online module: Divergent National Energy Polices: the U.S. vs Germany

Dec 10 – Climate adaptation in Madison
  
  **REQ:** Online module: Dane County seeks ways to adapt to climate change