

# Conservation and Use of Natural Resources

## Fall 2008

**Course:** 01:450:211

**Instructors:** Nate Gabriel, Peter Vancura

**Place:** LSH B269, LIV

**Time:** T, F 12-1:20 pm

**Office:** Nate Gabriel, LSH 119B

Peter Vancura, LSH 119A

**Email:** [nategab@eden.rutgers.edu](mailto:nategab@eden.rutgers.edu)

[pvancura@eden.rutgers.edu](mailto:pvancura@eden.rutgers.edu)

**Office Hours:** Tuesdays, 1:30 to 3:30 or by appointment.

**Note:** *When emailing the instructors, please write "GEOGRAPHY 211" in the subject field of the message to ensure a prompt reply.*

### Course Description and Goals

The purpose of this course is to provide students with a basic framework through which to understand the ways humans use natural resources and their efforts to conserve them. The class will lay the groundwork for basic environmental literacy, with the goal of developing critical reading, analytical, and (oral and written) communication skills as they pertain to debates about the use of and threats to natural resources. This course focuses on the United States experience, though it will often draw on international examples to put the American experience in context. All of the principle resource types will be investigated, stressing the role of market forces, legal issues, stakeholder influence, and government intervention. In addition, we will examine biogeochemical systems since they are basic to resource production, and review some current best-practices in conservation that stress sustainable management of natural capital and environmental systems.

### Required Materials

Students are not required to purchase any text for this course. Instead, required readings will be drawn from articles and book chapters related to each week's lecture. A typical week's readings might consist of a book chapter, or one or two newspapers, or an article from an academic journal, or a series of blog postings. Additional readings not included on this syllabus will be assigned as the course progresses. These will be announced in class before the lecture and then posted in digital form on the course's Sakai website. Students are responsible for making sure they have access to this site, and for paying the cost of printing these materials, if they desire to do so. Materials will be posted at least a week ahead of time for students' convenience.

We encourage you to supplement the course material and keep yourself informed about current issues. These online newspapers, magazines, and blogs (some academic, some popular) are good places to start:

<http://blogs.wsj.com/environmentalcapital/>

<http://www.nytimes.com/pages/science/earth/>

<http://www.dumpitinthepump.com/>

<http://aguanomics.com/>

<http://www.env-econ.net/>

<http://carbon-based-ghg.blogspot.com/>

<http://gristmill.grist.org/>

<http://www.huffingtonpost.com/green/>

### Class Websites

<http://sakai.rutgers.edu>

This website will be used both to disseminate readings and communicate course announcements.

Therefore the website should be checked periodically by all students.

<http://geography.rutgers.edu>

Refer here for general information on the geography department.

<http://secure.fas.rutgers.edu/apps/gradebook>.

We will also utilize FAS gradebook to report grades on class assignments.

All three of the above websites are easy to navigate, but you should explore them as soon as possible to assure any technology issues are solved early.

## **Contacting the Instructors by E-Mail**

Please address all e-mail to the instructor who is currently teaching the course. Peter Vancura is teaching the first half; Nate Gabriel, the second. Please put "Geography 211" in the index line. We are happy to respond to any questions regarding class assignments or questions about the reading via e-mail. However, all concerns about grades should be discussed during office hours. Because of the large number of e-mails we receive we cannot guarantee we will respond to e-mails at the last minute. Therefore you should make sure to start on assignments early so that any questions/concerns can be discussed in class.

## **Organization of Class Time**

The class period may consist of a mixture of lecture, small group activities, films, and discussion. Therefore please attend having completed the assigned reading and be ready to share your opinions, thoughts, and critiques of the material we have read for class. If you miss a lecture, it is your responsibility to find out if there were readings announced in class. In general, regular class attendance, careful attention to the assigned reading, and consistent note taking are the best strategies for earning a strong course grade.

## **Student Evaluation**

### **Grading**

Grades will be calculated by combining points accumulated through two quizzes, a mid-term exam, a final exam, and four take-home assignments.

Mid-term: 25% (100 PTS)

Final: 25% (100 PTS)

Assignments: 25% (25 PTS each)

Quizzes: 25% (50 PTS each)

### **Mid-term Exam**

The mid-term exam will take place on October 21<sup>st</sup> and will be made up multiple choice and short answer questions, and can potentially cover **any** material thus far in the course. Exam questions are drawn from the text, lectures, and class discussions. Students will have the entire class period to take the exam. Notes will **not** be allowed.

### **Final Exam**

The final exam will take place on December 18<sup>th</sup>, from 12:00 PM to 3:00PM and will take the same form as the mid-term. It will cover material from the second half of the semester.

### **Attendance**

Attendance will be taken for each class session and will be taken into consideration when determining final grades.

## **Special Needs**

All efforts will be made to accommodate students with special needs. However, students are responsible for making their needs known to me and for seeking assistance in a timely manner. Please contact me to privately discuss your personal requirements.

**Plagiarism or other academically inappropriate behavior will not be tolerated. Students are responsible for familiarizing themselves with all relevant school policies.**

## Lecture Schedule

### Abiotic Resources

<b>Class</b>	<b>Unit</b>	<b>Readings</b>
2-Sep	Intro	
5-Sep	Key Terms	Cutter (1999: 1-8) <i>Exploitation, Conservation, Preservation</i>
9-Sep	History of Natural Resource Use and Conservation	Balm (Unit 2); Pinchot Debates Congress 1913; Muir 1912; <a href="http://www.sfmuseum.org/hetch/hetchy7.html">http://www.sfmuseum.org/hetch/hetchy7.html</a> ; <a href="http://www.pulitzer.org/works/2005,Editorial+Writing">http://www.pulitzer.org/works/2005,Editorial+Writing</a>
12-Sep	Economics, Law, and Politics of Nat. Resources	Cutter (199: 13-24) <i>Exploitation, Conservation, Preservation</i>
16-Sep	Economics, Law, and Politics of Nat. Resources <b>Assignment #1 due</b>	RFF Reader; Cunningham and Cunningham (2007: 541-564)
19-Sep	Ecological Base of Nat. Resources	Cunningham and Cunningham (2007: 52-72)
23-Sep	Population <b>Quiz # 1</b>	Lahart et al (2008), "New Limits to Growth Revive Malthusian Fears." <i>WSJ</i> ; Diamond (1995) " <i>Easter's End</i> "

### ENERGY, AIR, CLIMATE

26-Sep	Nonrenewable energy	Krauss (2008) "Drilling Boom Revives Hopes for Natural Gas." <i>NYT</i>
30-Sep	Air	TBA
3-Oct	Climate	Spector (2008) "Big Foot" <i>New Yorker</i>
7-Oct	Renewable Energy <b>Assignment #2 due</b>	Confessore (2008) "In Rural New York, Windmills Can Bring Whiff of Corruption." <i>NYT</i>

### WATER I

10-Oct	Water Geography	Wolman and Wolman (1-26)
14-Oct	Water Use	Spector (2006) "THE LAST DROP: Confronting the possibility of a global catastrophe." <i>New Yorker</i>
17-Oct	Water Quality	Leibach (2007) "Black Mayonnaise." <a href="http://scienceline.org">scienceline.org</a>
21-Oct	<b>Mid-Term</b>	

### Biotic Resources

#### WATER II

24-Oct	Water as Commons	Cutter and Renwick, Chap 9; Hardin, G. "The Tragedy of the Commons"
28-Oct	Oceans and Seas	McCay, B. "Property Rights, the Commons, and Natural Resource Management" in <i>Property Rights, Economics, and the Environment</i> Montaigne, "Still Waters, the Global Fish Crisis", <i>National Geographic</i> . April 2007
31-Oct	Global Forest Resources	United Nations Forestry Assessment, 2005, summary; Wilson, E.O. <i>Web of Life</i> , Chapter 12
4-Nov	<b>No Class: Vote!</b>	

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## FORESTS AND BIODIVERSITY

7-Nov	Tropical Forests	Excerpt from Hecht and Cockburn, <i>The Fate of the Forest</i> ; Schwartzman et al 2000, "Rethinking Tropical Forest Conservation: Perils in Parks"
11-Nov	Biodiversity	"Biopiracy" ( <i>Wired</i> ) "Bioprospecting" (US Forest Service)
14-Nov	Quiz #2	
18-Nov	Temperate Forests and the United States	Excerpt from Cutter and Renwick, Chap 7; "Crimes for Nature", <i>American Forests</i> , Vol 105(1): 7-9 (1999)

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## FOOD AND AGRICULTURE

21-Nov	Agri Overview and Soil	Werker, "Power to the People", <i>Foreign Policy</i> , Nov/Dec 2008
26-Nov	Agriculture, US	"Mideast Facing Choice Between Crops and Water" <i>New York Times</i> , 7-21-08; "Across Globe, Empty Bellies...", <i>New York Times</i> 4-18-28
2-Dec	US Ag, Food Network, Famine	Kingsolver, B. <i>Animal, Vegetable, Miracle</i> , Chap 3
5-Dec	Rangelands	Steel, <i>Public Lands Management in the West</i> , Chapter 1,2,3; "The Buffalo Commons: Metaphor as Method", Popper and Popper. <i>Geographical Review</i> . 89(4).
9-Dec	Urbanization	<i>Crabgrass Frontier</i> , selected chapters; Sandercock in <i>Readings in Property Theory</i>
12-Dec	Wrap-up	
18-Dec	<b>Final Exam</b>	

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