# **Course description**

The Environmental Studies Senior Seminar brings together majors with different course backgrounds to analyze environmental problems using an interdisciplinary approach. Time in the course will be devoted to three main goals. (1) Reading about and discussing selected environmental problems and how society has responded to these issues. (2) Understanding the methods and techniques that are used to produce and disseminate the information that shapes environmental debates (including scientific knowledge, policy recommendations, historical analysis, public communication). (3) Developing and completing an independent research project.

## **Seminar leaders**

Prof. Jill Miller, 224 McGuire Life Sciences, 542-2168, jsmiller@amherst.edu Prof. Kate Sims, 301 Converse Hall, 542-2902, ksims@amherst.edu

# Meeting time & location

Wednesdays, 2:00-5:00pm, McGuire Life Sciences building, room 230

# Research assignments

An important component of the seminar is the completion of original and independent student research. Students who choose to write an honors thesis may expand this research project into their Environmental Studies thesis during the second semester.

In the course we will discuss how information has shaped environmental debates and policies. Your research goal is to create a product that could move the debate by clearly stating and answering a question. The specific topics and format will be developed in discussion with course leaders and thesis committees (if applicable). As noted in the schedule, the goal of the seminar is to approach this potentially daunting task in stages. You are responsible for planning ahead and staying on top of these deadlines in order to finish your research project on time.

## **Textbook and readings**

Required texts for this seminar include *Silent Spring* (1962, Carson), *The World Without Us* (2008, Weisman), and *Limits to Growth: The 30 Year Update* (2004, Meadows et al.). All are readily available in paperback. Other readings (see attached list) will be made available on the course website http://www.amherst.edu/academiclife/departments/courses/0910F/ENST/ENST-70-0910F

You are also required to submit (via the course website) responses to each week's readings by 5pm on the Tuesday before class. These should be thoughtful responses (questions, reactions, comments) that can provoke discussion; you should also read through the responses posted by fellow students in preparation for discussion.

## **Intellectual Responsibility**

Plagiarism and other forms of academic dishonesty will not be tolerated and will be reported to the Dean of Students. If you are not already, make yourself aware of the College's Statement of Intellectual Responsibility http://www.amherst.edu/~dos/conduct/rightsrespon.html. There is a useful summary of the pitfalls of plagiarism at http://www.amherst.edu/campuslife/deanstudents/acadhonesty

Dates	Class	Readings	Research
9 Sept	Introductions; <i>The World Without Us</i> ; How do we know what we know?	Weisman (2008, Chs. 1-3, 9)	Potential research questions (in class)
16 Sept	Case 1: Biodiversity Dr. Josh Donlan: Island restoration, invasive species, & maximizing your conservation buck	Ferraro & Pattanayak 2006; McCauley 2006; Donlan et al. 2005; Chapin 2004	Project idea due
23 Sept	Restoring the Florida Everglades	Layzer (2006, Ch. 15); Bilger (2009)	
30 Sept	Dr. Bethany Bradley Conservation strategies & climate change	Bradley et al. (2009); Ricciardi & Simberloff (2009); McLachlan et al. (2007); Harris et al. (2006)	Literature search due
7 Oct	Case 2: Pollution Silent Spring & early legislation	Carson (1962, Chs. 1-4, 8, 11-12, 16-17); Layzer (2006, Ch. 2), Baldwin (1962)	
14 Oct	Dr. Jessica Reyes Cost-benefit analysis in health, Long term effects of lead	Reyes (2009); Rosenberg (2004); Tierney (2007)	Outline due
21 Oct	Seth Shulman Toxic legacy of the US Military	Shulman & Pollack (1989); Shulman (1992, Preface & Ch. 1)	
28 Oct	Case 3: Resources  Ecological footprints; Limits to growth	Meadows et al. (2004); Norgaard (2002); Nordhaus et al. (1992)	
4 Nov	<b>Dr. Joseph Moore</b> Tragedy of the Commons	Hardin (1968); Wackernagel & Rees (1996, Chs. 1-2)	Draft 1 due
11 Nov	Case 4: People Dr. Diana Pei Wu Youth organizing in environmental justice	Quiroz-Martinez et al. (2005)	
18 Nov	Initial paper presentations	No reading	Draft 2 due
25 Nov	Thanksgiving break, no class		
2 Dec	Dr. Chris Cuomo Indigenous knowledge & climate change	Cuomo (1998); Cuomo et al. (2008)	
9 Dec	Final project presentations	No reading	
16 Dec	Reading period, no class		Final paper due
	9 Sept  16 Sept  23 Sept  30 Sept  7 Oct  14 Oct  21 Oct  28 Oct  4 Nov  11 Nov  18 Nov  25 Nov  2 Dec  9 Dec	Introductions; The World Without Us; How do we know what we know?  Case 1: Biodiversity Dr. Josh Donlan: Island restoration, invasive species, & maximizing your conservation buck  Restoring the Florida Everglades  Dr. Bethany Bradley Conservation strategies & climate change  Case 2: Pollution Silent Spring & early legislation  Dr. Jessica Reyes Cost-benefit analysis in health, Long term effects of lead  Case 3: Resources Ecological footprints; Limits to growth  Nov Dr. Joseph Moore Tragedy of the Commons  Case 4: People Dr. Diana Pei Wu Youth organizing in environmental justice  Initial paper presentations  Dr. Chris Cuomo Indigenous knowledge & climate change  Final project presentations	Introductions; The World Without Us; How do we know what we know?  Case 1: Biodiversity Dr. Josh Donlan: Island restoration, invasive species, & maximizing your conservation buck  Dr. Bethany Bradley Conservation strategies & climate change  Toct Silent Spring & early legislation  Dr. Jessica Reyes Cost-benefit analysis in health, Long term effects of lead  Toxic legacy of the US Military  Seth Shulman Toxic legacy of the US Military  Dr. Joseph Moore Tragedy of the Commons  Case 4: People Dr. Joseph Moore Tragedy of the Commons  Case 4: People Dr. Diana Pei Wu Youth organizing in environmental justice  Dr. Chris Cuomo Indigenous knowledge & climate change  No reading  Weisman (2008, Chs. 1-3, 9)  Ferraro & Pattanayak 2006; McCauley 2006; Donlan et al. 2005; Chapin 2004  Layzer (2006, Ch. 15); Bilger (2009)  Bradley et al. (2009); Ricciardi & Simberloff (2009); McLachlan et al. (2007); Harris et al. (2006)  Carson (1962, Chs. 1-4, 8, 11-12, 16-17); Layzer (2006, Ch. 2), Baldwin (1962)  Reyes (2009); Rosenberg (2004); Tierney (2007)  Meadows et al. (2004); Norgaard (2002); Nordhaus et al. (1992)  Hardin (1968); Wackernagel & Rees (1996, Chs. 1-2)  Quiroz-Martinez et al. (2005)  Vouth organizing in environmental justice  No reading  Dr. Chris Cuomo Indigenous knowledge & climate change  No reading