Environmental Analysis and Problem Solving (ENVI 355)
Macalester College, Fall 2005
Tues/Thurs 10:10-11:40am OLRI Room 270

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Course Description
Environmental Analysis and Problem Solving is a required course for Environmental Studies majors. The course introduces students to the perspectives, methodologies, tools, and concepts that are at the heart of Environmental Studies and provides opportunities for applying these tools to real environmental problems.

Taken at roughly the half way mark of a student’s Macalester experience, the course is designed to provide opportunities to apply knowledge and skills already acquired, to strengthen the understanding of Environmental Studies and its role in the liberal arts curriculum, and to facilitate a look ahead at the final two years of undergraduate education and beyond.

This year’s seminar will focus on the issue of global climate change. Through our examination of this complex environmental theme, we will address a range of interdisciplinary perspectives toward both defining what an environmental problem is and framing the best avenues for mitigation.

In the process of studying climate change, the main learning goals for this course are:

- Gain interdisciplinary analytical tools for understanding the confluence of ecological, cultural, social and political perspectives
- Improve skills at expert reading, rhetorical writing,
research, team work and oral presentation

Student Expectations and Modes of Evaluation

You are expected:

- To come on-time to class every session
- Be respectful to your instructor and class peers
- Regularly check our class website for updates and assignments

Grades for the course will be based on performance in the following areas:

1) Class attendance and participation (10 points)
   Attendance will be taken at every class meeting. You are expected to come to class prepared to contribute to our discussions. Given that expectation, I will feel it appropriate to call on any individuals in class to answer questions.

2) Reading reflections (10 points)
   A 250 word reflection piece should be submitted through the course website prior to each class meeting. These reflections should reference the assigned readings. The point is not to summarize the texts, but instead to attempt to critically think with and synthesize the material. Please see the description of this assignment on the course website.

3) Class presentation and fact sheet (20 points)
   This assignment is related to the mock Arctic Conference on Oct 25th. This presentation will be prepared by pairs of people representing a country or organization. Assignment details will be posted to the course website. Your fact sheet must be uploaded to the website by 5pm October 24th.

4) Op-ed on climate change (20 points)
   You are expected to prepare and submit an op-ed piece to a major newspaper commenting on any aspect of climate change. The op-ed should be roughly 750 words long and must advance an argument and/or position. The op-eds will be peer reviewed prior to submission. You will be assigned a peer group through the MAX Center. The final piece is due on Nov. 15th.

5) Final Paper: Energy Sector Study (10 points for Work Plan; 30 points for Final paper)
   This assignment requires you to choose a topic within the energy sector and to examine a particular program being sponsored by a corporation, NGO, national policy or international body. The work plan should include a summary of the topic, an outline of the paper, a bibliography and proposed work schedule by week. The Work Plan is due on Nov. 29th. The final report should be 10 pages long and properly cited. The final paper is due on Dec. 19th.

If you choose to submit an assignment late, you will be graded down one full step for each day past the deadline. For example, an assignment handed in one day late will begin with a B+; two days late a C+. Late reading reflections will not be accepted.
Academic Integrity
It is assumed that all members of the class will act with academic integrity and will not engage in behavior such as plagiarism, academic dishonesty, misrepresentation, or cheating. There is a zero tolerance policy for plagiarism. If you are caught, you will receive a failing grade on that assignment. Please see the college’s policy on academic honesty if you need clarification.

Required Books and Readings

Please purchase the following books:

All other readings will be available through electronic reserves. We will also be reading significant sections of the following titles. All of the below books will be available for purchase at the bookstore or available through online booksellers.


Summary of Topics and Readings

Sept 8: Course introduction

Part I: Defining a Global Environmental Problem
Sept 13: What is the basis of Environmental Studies?

**Sept 15: What is global about the environment?**

**Sept 20: Seeing the Earth**

**Part II: Is the Climate Changing?**

**Sept 22: Climate or Weather**

**Sept 27: Modeling, Measuring and Predicting**

**Sept 29: Understanding the Impacts of Climate Change**

**Oct 4: The Authority of Science: Credibility and Climate Skeptics**

Oct 6: Representing Peoples and Numbers: Whose Scientific Knowledge Counts
Guest: Alessandra Vitrella, Carleton College


Introduction to the Arctic exercise. Groups to be assigned.

Part III. The Scales of Governmental Response
Oct 11: The Framework Convention for Climate Change and the Kyoto Protocol

Oct 13: Missing masses

Op-ed Presentation by Kat

Oct 18: Kyoto and Beyond
Udall Foundation visit
- Visit the following websites to learn the latest post Kyoto approaches:
  http://www.seattle.gov/mayor/climate/default.htm#seattle

**Oct 20: In-class screening of Baked Alaska**

Please focus your reading reflection on this article, the Wohlforth book and the film. Submit this after class to me by e-mail.

**Oct 25: In Class -- Mock Arctic Panel**

Fact Sheets due by 5pm Oct 24th.

**Part IV. Global Warming or Climate Change: The Issue in the Popular Press**

**Nov 1: The Day After Tomorrow**
- View the *The Day After Tomorrow* in the Media Lab.

**Nov 3: Fiction or Non-fiction?**

**Nov 8: The Popular Scientific Press**

**Nov 10: The New Yorker Series**

**Nov 15: The Internet: Who Controls the Truth – Guest Aaron Doering**
- Visit www.polarhusky.com
- Please select three additional websites to analyse. Bring the URL’s to class.

In your reflection pieces, comment on how the web delivers climate change information to the public. Which websites are more or less effective at reaching which audiences?
** Final Op-ed assignment Due

Part V. Energy Futures

Nov 17: Energy Trends

Nov 22: Nuclear Politics

Nov 29: Going Solar

* Work Plan Due

Dec 1: Tilting at Windmills Visit from Rolf Miller

Dec 6: Energy Efficiency and the Built Environment

Dec 8: Transportation and Auto Standards – Guest Chris Wells

Dec 13: The Minnesota Climate Change Plan – Guest Michael Noble

Dec 15: Sharing Projects and Summing Up
Each student to give a 5 minute presentation about their research paper.

FINAL Papers Due: Monday December 19, 2005 (Early submissions accepted)