

**Economics 191CC**  
**Climate Change: Economics and Policy**

The class will introduce economic and policy issues underlying the threat of global climate change, in particular the role of economics in the designing efficient climate policy. It will also present some of the scientific methods used in assessing climate change processes. Economic topics will include externalities, taxation, valuation, discounting, and cost-benefit analysis. The economic principles will then be applied to selected applications like the impacts of climate change on agriculture, energy use, health, etc. As a pre-requisite, students should have a very good understanding of microeconomic theory, statistics, and multivariate regression analysis.

**Course Time:** Monday and Wednesdays, 11:00 – 12:15, BSIF 1217 ('Biological Sciences Instructional Facility')

**Home Page:** <http://www.econ.ucsb.edu/~olivier/econ191cc/econ191cc.html>

**Office Hours:** Wednesday 1:30 – 3:00

**Textbook:** Charles D. Kolstad, *Environmental Economics*, 2000, Oxford University Press.  
The textbook is not required but gives a detailed coverage of topics in environmental economics which will be relevant to the second section of this course  
Other readings will be available online through the class homepage.

**Grading:** Final grades will be calculated as follows:  
40% Midterm exams, see explanations below  
60% Final exam (covering all course material, held during the examination period)

There will be 3 in-class midterm examinations. Each will count for 20%. In order to assign the final grade for the class, I will count the 2 best midterms, plus the final.

I will post some of the questions for the midterms on the class website. Students can prepare for these questions in advance of the midterms. No answer key will be provided for those.

The examinations will be composed of analytical exercises, questions about the readings, and true/false/explain type of questions.

- **There will be no make-up exam (either for the midterms or final). Students who miss any exam will receive a grade of 0 for that exam.**
- **Students must make an effort to write legibly on their exam answer sheet. If I cannot read your answer, you will receive no credit for it.**

**Economics 191CC: Required Readings and Tentative Class Schedule.**

**Jan 7 – Jan 14            Section 1: Introduction and the Science of Climate Change**

**Readings:**            IPCC (2007), “Climate Change 2007: Synthesis Report. Summary for Policymakers”

                              PEW Center (2008), “The Causes of Global Climate Change”, Pew Center on Global Climate Change

                              Goulder, L. and W. Pizer (2006): “The Economics of Climate Change,” NBER Working Paper No. 11923

                              Congressional Budget Office (2007): “Issues in Climate Change,” Statement of Peter R. Orszag, Director.

**Jan 21:                    Midterm #1**

**Jan 26 – Feb 11:        Section 2: Economic Issues for Climate Policy**

**Readings:**            C. Kolstad, *Environmental Economics*, Chapters 4-9

                              Congressional Budget Office (2005): “Limiting Carbon Dioxide Emissions: Prices versus Caps.”

                              Stavins, Robert (1998): “What Can We Learn from the Grand Policy Experiment? Lessons from SO2 Allowance Trading,” *Journal of Economic Perspectives*, 12(3): pp. 69-88.

                              More to come

**Feb 18:                    Midterm #2**

**Economics 191CC: Required Readings and Tentative Class Schedule.**

**Feb 23 – Mar 2:           Section 3: Economic Impacts of Climate Change**

**Readings:**           IPCC Working Group II Report (2007): “Impacts, Adaptation and Vulnerability,”  
Chapters 5 and 8.

Deschenes, Olivier and Michael Greenstone. 2007. “The Economic Impacts of  
Climate Change: Evidence from Agricultural Profits and Random Fluctuations in  
Weather.” *American Economic Review*, 97 (March): 354-385.

Deschenes, O. and M. Greenstone (2008): “Climate Change, Mortality, and  
Adaptation: Evidence from Annual Fluctuations in Weather in the US,” MIT WP  
07-19.

More to come

**Mar 3:                       Midterm #3**

**Mar 9 – Mar 11:       Section 4: International Climate Policy**

**Readings:               To come**