

RSM 520
Climate & Society: a multidisciplinary approach
Spring 2006

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Description of Course: This course is designed to provide students from different disciplinary backgrounds with an overview of the underlying physical processes, general concepts, and policy debates surrounding current climate issues. Topics covered include: physical science principles related to climate issues; social science concepts relevant to understanding climate and society interaction; specific case studies addressing the interrelated physical, sociopolitical and economic issues; and a synthesis of cross cutting themes. Emphasis will be placed on various methodological approaches to studying climate related issues. Experts on specific topics will give guest lectures.

Which is wrong, the weather or our calendars? John Cage, A Year from Monday

RESPONSIBILITIES/GRADING

- 30% - class participation (leading discussions, topic presentation)**
- 30% - midterm**
- 40% - project (30% written, 10% presentation)**

COURSE OUTLINE

I. Science and Society overview

Readings:

1. Chpt. 1 in: Kates, R. W., J. H. Ausubel, et al., Eds. (1985). Climate Impact Assessment: Studies of the Interaction of Climate and Society, SCOPE 27. Chichester, England, John Wiley & Sons.
2. Stern, P (1993). "A second environmental science: Human-environment interactions." *Science*, 260,1897-1899.
3. Hart, D. M. and D. G. Victor (1993). "Scientific elites and the making of US policy for climate change research, 1957-74." *Social Studies of Science* 23: 643-80.

II. Global Warming

Readings:

I. Science background

1. Summary for Policymakers, pp. 1-20: Houghton, J. and e. al. (2001). Climate change 2001: the scientific basis [contribution of Working Group

I to the Third Assessment Report of the IPCC]. Cambridge, Cambridge University Press: 881.

2. Oreskes, N. (2004). "The scientific consensus on climate change." Science, 306, 1686.
3. Dilling et al. (2003). "The role of carbon cycle observations and knowledge in carbon management." *Ann. Rev. Environ. Resources*, 28, 521-58.

II. Policy

1. Sarewitz, D. and R. J. Pielke (2000). "Breaking the global warming gridlock." Atlantic Monthly 286(1): 54-64.
2. Chpt. 4 in: Kempton, W., J. Boster, et al. (1996). Environmental values in American culture. Cambridge, MIT Press.
3. UNFCCC (2005), 'Caring for Climate', page 24-37.
4. Fogel, C. (2004). "The local, the global and the Kyoto Protocol." In *Earthy Politics. Local and Global in Environmental Governance*. Eds. Jasanoff, S. and Martello, M.

III. Ozone

Readings:

1. Chapter 3 and 4 of Litfin, K. (1994). 'Ozone Discourses' Columbia University Press, New York, 257 pp.

IV. Hurricanes and Climate

Readings:

1. Emanuel (2005): Increasing destructiveness of tropical cyclones over the last 30 years. *Nature*, 436, 686-688.
2. Pielke et al. (2005): Hurricanes and Global Warming. *Bulletin of the American Met. Society*, 1571-1575.
3. Peacock et al. (2005) Hurricane risk perceptions among Florida's single family homeowners. *Landscape and Urban Planning*.
4. Enarson and Morrow (): A Gendered Perspective: The voices of women. In *Hurricane Andrew: Ethnicity, Gender and the Sociology of Disasters*, Eds. Peacock, Morrow and Gladwin.

V. Climate Variability

Readings:

1. Chpt. 3&4 (pp. 29-65): Glantz, M. H. (2001). Currents of Change: Impacts of El Nino and La Nina on Climate and Society. Cambridge, Cambridge University Press
2. Orlove, Chiang and Cane (2002): Ethnoclimatology in the Andes. *Scientific American*, vol. 60, 428-435.
3. Patt (2001): Understanding uncertainty: forecasting seasonal climate for farmers in Zimbabwe. *Risk Decision and Policy*, Vol. 6, 105-119.

MIDTERM EXAM

PROJECT SELECTION

CASE STUDIES:

VII. Climate and Marine Ecosystems

Guest Speakers: Andrew Baker

IX. Climate change in South Florida

Guest Speakers: Hal Wanless (U. Miami); Harvey Ruvlin (Clerk of County Courts)

VIII. Risk

Readings:

5. Leiserowitz (2004). "Before and after the Day After Tomorrow: A US Study of climate change risk perception." *Environment*, 9, 2-37.

FINAL PROJECTS AND PRESENTATIONS
