SCIENCE POLICY

Let's begin with a few basic premises:

1-Few policymakers are well versed in science and health. Many scientists are not well versed in the process of formulating and implementing public policy. Therefore, there is a tendency for science/health and policy types to operate in separate professional worlds.

2-There is a lack of scientific training for those studying scientific/health policy, and a lack of political and policy training for those studying the sciences or health.

3-Science and technology result in a broad range of impacts on society. The impacts can be positive, such as the advances in health care over the 20th and 21st Centuries, or they can be negative, such as the prospect of a terrorist attack using biological weapons. The impacts of science and technology on society depend on the decisions we make and the decision processes we implement for the governance of science, technology and health. Given the central role played by science, technology and health, it is critical to develop knowledge of the interface of science, technology and decision making.

This class attempts to help you understand how these relate. How do political or social issues affect the construction of a particular science/health issue? How do findings in a particular science/health issue inform the development of policy in that area? What role do the media play? In other words, how is scientific knowledge generated, presented, understood and applied as various political forces shape the development of policy in that scientific/health area?

This class attempts to:

1-provide background in science policy

2-help you consider different perspectives from political science, economics, sociology. How can they be used to critically examine your area and policy in your area?

3-Examine criticisms of both science/health and policy processes articulated by academics, government agencies, interest groups and grassroots organizations

4-Explore how scientific/health claims are commonly misrepresented and misused in policy formation, particularly to support various ideological. How have the media covered, or possibly contributed to the misrepresentations?

Readings:

Week 1: Intro to course

J. Stilgoe, j. Wilsdon and B. Wynne, 2005 The public value of science, or how to ensure that science really matters, DEMOS, London.
http://www.demos.co.uk/publications/publicvalueofscience

Pielke, J. 2002. Policy, politics and perspective. Nature 416:368.
http://sciencepolicy.colorado.edu/admin/publication_files/2002.05.pdf

Week 2: Federal Budget Process

Greenberg, D. (2001). **Science, Money and Politics**, University of Chicago Press.

Week 3: Science Advice to the President and Congress

John Marburger: http://sciencepolicy.colorado.edu/scienceadvisors/marburger_transcript.html

John Gibbons: http://sciencepolicy.colorado.edu/scienceadvisors/gibbons_transcript.html

Edward David: http://sciencepolicy.colorado.edu/scienceadvisors/david_transcript.html

Neil Lane: http://sciencepolicy.colorado.edu/scienceadvisors/lane_transcript.html

Donald Hornig: http://sciencepolicy.colorado.edu/scienceadvisors/hornig_transcript.html

Week 4: Science Advisory Committees

Federation of American Scientists, 2004: Flying blind: The rise, fall and possible resurrection of science policy advice in the US http://www.fas.org/resource/12022004142618.pdf

Pielke, R. 2005. Accepting politics in science, The Washington Post, January 10
http://sciencepolicy.colorado.edu/admin/publication_files/resource-1706-2005.13.pdf

Week 4: Case in point: Environment and Global Climate Change
S. Shackley and Brian Wynne (1996). Representing uncertainty in global climate science policy: Boundary-ordering devices and authority. *Science, Technology & Human Values*, 21(3), 275-302

Sarewitz,D. (2004). How science makes environmental controversies worse. *Environmental Science and Policy* 7, 385-403.

Week 5: Influencing the Research Agenda
Brown, M. (2006). Ethics, politics and the public: Shaping the Research Agenda. In David H. Guston and Daniel Sarewitz *Shaping Science and Technology Policy: The next generation of research,* p. 10-32. University of Wisconsin Press: Madison.
http://books.google.com/books?hl=en&lr=&id=12kOiesm1TOC&oi=fnd&pg=PR7&dq=Shaping+science+%26+technology+policy:+The+next+generation+of+research&ots=zj3oAi8xnE&sig=Nbrqp0v0uqENmX9De8yEzNOhZuA#v=onepage&q=pervasiveness&f=false

Weeks 1-5: Readings listed above and a one-page weekly essay – due Friday electronically (synopsis and "the most important things I learned")

Weeks 6-16: Annotated bibliography and 5-page paper in your area of interest. Trace its history in terms of its economics, politics, research, controversy, impacts, debates.etc. Finally, and equally important what is the interface between communication (both mass and among one another) and science policy in your area? How has it been studied (in the academic literature) and covered (in the popular literature?). What are the interesting questions in your area of interest on which your studies could be based?

This assignment is designed for you to look at your thesis or final project topic from the perspective of policy. It will add to the literature review section.