ESP 256: Science, Technology & the Politics of Nature
Spring 2011
Wednesdays 2-5
207 Mulford Hall
3 Units

INSTRUCTOR

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COURSE DESCRIPTION

This graduate seminar will introduce the methods and theories of Science and Technology Studies (STS) in order to explore the relationship of science, technology, law and politics in the domains of environment and health. The course will focus some attention on the tension between technocracy and democracy in natural resource law and environmental regulation, and the role of biotechnology in reshaping the natural and political order. The course will equip graduate students in the social sciences, law, life sciences and public policy with theoretical and practical tools for analyzing complex problems at the science, technology and society interface.

REQUIRED BOOKS

Available at the Cal Student Bookstore
These should also be on 2-hour reserve at Biosciences Library

Sheila Jasanoff, The Fifth Branch (Harvard 1990)

James Scott, Seeing Like a State (Yale 1998)

RECOMMENDED BOOKS


Mario Biagioli, The Science Studies Reader


REQUIRED COURSE READER:

Will be available at Ned’s Bookstore on Bancroft or online at www.odinreaders.com

*** You are responsible for printing out and bringing to class all online materials. ***

GRADING

Weekly Response Papers (1 pg. each) 15%
Lead class session (first hour) 10%
Participation in class discussion 15%
Written Paper 60%

Written Paper Option I: Two Short Papers (limit 8-10 pages)

In this option, one paper will be due the week before Spring Break, the other on the last day of class. The two papers should engage directly with critical questions and themes from the readings in the course. Papers may wish to address in a more extended way, questions posed for each week of reading, and may focus on a week of particular interest, or of particular relevance to your planned dissertation. Or, papers may compare across two or more weeks of reading. You may also take an author from the course that seems most interesting, and do a paper on that author’s larger body of work. For instance, a paper might focus on the writing of Bruno Latour, and address his works from the course as well as other books and articles he has written. I’m pretty flexible here. First paper due on March 16. Second paper due on April 27. If no paper is turned in before Spring Break, this option is no longer available.

Written Paper Option II: Long Paper (limit 20 pages)

This option requires you to analyze a problem, case or controversy in the field of environment or health (broadly construed) where: science/technical knowledge has become publicly contested; where it is likely to become so; where experts play a central role, but may have come under fire; where science must interact closely policy makers; where there are tacit value conflicts underlying what seem to be technical issues, or technoscience is exerting tacit governance of various kinds. For example, you might choose the BP Spill and look at the technical reports in a social context; analyze the politics and impact of the recent report on synthetic biology by the President’s bioethics commission; or proposals to govern of new technology of industry (e.g., synbio, geoengineering, diret-to-consumer genetics, etc.) Start narrow with the conflict, narrating it in detail, and work outwards in your analysis. Use the work we have studied to illuminate the controversy, and explore whether the controversy helps us understand (or develop) the theory. I encourage you to select cases that are relevant to your dissertation projects, but this is not required.

I will ask for a title, an abstract, and a first draft at different points in the semester. The final paper is due on April 27.
KEY DATES

March 9    Long Paper titles due March 9
March 16   Short Paper #1 due
March 30   Long Paper abstract and outline due
April 13   First draft of Long Paper due
April 27   Oral presentations, Long Paper due, Short Paper #2

Jan. 19
Intro and Overview

1.1 Tim Lougheed, “Outside Looking In: Understanding the Role of Science in Regulation,” *Environmental Health Perspectives* 117;3 (2009): A105-A110


I. FOUNDATIONS: NATURE, SCIENCE, POWER

Jan. 26
Making Modern Science


Recommended:


Feb. 2
Getting Real: Objectivity and the Representation of Nature


3.2 Ian Hacking, *Social Construction of What?* (end of Ch. 2, Ch. 3. “What About the Natural Sciences”), 59-99


Recommended:

Franklin Ginn and David Demeritt, “Nature: A Contested Concept” (book chapter)

### Feb. 9

**Natural Law**


### Feb. 16

**Ruling Categories and Kinds**

5.1 Ian Hacking, *Social Construction of What*, (Ch. 5 “Kind-Making: The Case of Child Abuse”): 125-162


5.4 James Scott, *Seeing Like A State*, 11-83

Recommended:
Feb. 23
Nature/Technoscience Hybridity


6.2 B. Latour, We Have Never Been Modern (Harvard University 1993), Chs. 1-2, 1-45. [Google online]


Paul Rabinow, “From Artificality to Enlightenment”

N. Katherine Hayles, How We Became Posthuman

March 2
Biopower

7.1 Foucault, “Biopower,” in Foucault Reader, ed. Paul Rabinow, 258-289

7.2 Warwick Anderson, Colonial Pathologies (Duke 2006), Ch. 1-2, [“American Military Medicine Faces West” and “The Military Basis of Colonial Health”] 12-73

7.3 James Scott, Seeing Like a State, Ch 4, “The High-Modernist City,” 103-146; Ch. 8, “Taming Nature: An Agriculture of Legibility and Simplicity,” 262-306


Recommended:


II. REGULATING NATURE

March 9
Environmental Controversies

Long Paper titles due


8.3 T. Porter, Trust in Numbers (Princeton 1995), Ch. 7 (“U.S. Army Engineers and the Rise of Cost-Benefit Analysis”), 148-189

8.4 Sheila Jasanoff, Science at the Bar (Harvard 1996), (Ch. 6 “Toxic Torts and the Politics of Causation”): 114-137


Recommended:

Daniel Sarewitz, “How Science Makes Environmental Controversies Worse”

March 16
Experts in the Administrative Apparatus

Short Paper #1 due

9.1 Sheila Jasanoff, The Fifth Branch: Science Advisors as Policymakers (1990) [selections]


March 23

*************** Spring Break ***************

March 30
Publics and Public Evidence

Long Paper abstracts and outline


**Recommended:**


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### April 6

**Risk Discourse: Reason, Power, Culture**


**Recommended:**


Wildavsky and Douglas, *Risk and Culture*


Rayner, “A cultural perspective on the structure and implementation of global environmental agreements”

Foucault, “Governmentality”

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### April 13

**Law, Science and Natural Resources: Keeping Out and Keeping In**
Long paper draft due


12.4 David Delaney, Law and Nature (Cambridge 2003), (Ch. 8 “Wild Justice and the Endangerment of Meaning: Law and Endangered Species’’): 192-212

April 20
Engineering Economy, Ecology


April 27
Presentations

Oral presentations due

Short paper #2 due

Long paper due