

WWS 583

Spring 2004

Policy for Science and Technology

(SA) No Audit

Maximum Enrollment: 50

Professor(s): Frank N. Von Hippel, Zia Mian

Description/Objectives:

Examines the intersection of science, technology and public policy. Topics include: the roles of advocacy groups, industry, research universities, national laboratories and individual citizens (including dissenters) in setting the public policy agenda; and the impact of political values on the focus of technical argumentation. Case studies include: nuclear weapons and missile defense; R&D policy; energy, climate change, and development; risk assessment, including cancer risks and losses of biodiversity; genetic engineering; and information technology.

Sample Reading List:

Von Hippel , Citizen Scientist

Stokes , Pasteur's Quadrant: Basic Science & Technological Innovation

Weinberg , "Scientific American" How Cancer Arises

Natural Resources Defense Council , U.S. Nuclear War Plan: Time for a Change

Pres. Council of Advisors on Science & Tech , Fed. Energy R&D for the 21st Century

Silver , Remaking Eden: Cloning & Beyond in Brave New World

Reading/Writing Assignments: A term paper is required although there is an option of substituting a well-defined group research project; also assigned are two policy memos as would be written for a Senator or Congressman on an scientific or technical issue.

Weekly reading requirements will include articles from journals such as Scientific American and Science magazines. One page review and assessment required on each unit's readings. Most readings linked to the web or made available in the course reader.

Requirements/Grading:

Final Exam: 20%

Papers: 20%

Term Paper: 40%

Precept Participation: 20%

Prerequisites and Restrictions: No prerequisite other than interest in policy making for technology.