

## SCIENCE, POLICY & ETHICS MINOR

**Faculty:** Phil Ammirato (Biology), Randall Balmer (Religion), Diane Dittrick (EnvSci), Tim Halpin-Healy (Physics), Peter Juviler (Politics/Human Rights), Brian Morton (Biology), Sonia Pereira (Economics) Richard Pious (Politics), Rajiv Sethi (Economics)

As part of the College's mission to prepare scientists, policy-makers, and an educated citizenry for the moral challenges presented by future scientific advances, Barnard offers a unique collection of courses focusing on issues at the frequently volatile intersection point where science, public policy and societal concerns collide. These courses are interdisciplinary in nature, team-taught by Barnard College faculty from a variety of departments, and held in a seminar format with limited enrollments, typically juniors & seniors. Recent topics concern ecological vs. financial imperatives in developing Third-World biodiversity, manipulation of the human genome, privacy issues and ethical dilemmas arising from genetic testing, misguided eugenics programs & race science, the Manhattan Project, as well as the Cold War build-up of nuclear arsenals in the US and former Soviet Union. The minor in *Science, Policy & Ethics*, which requires 5 courses total, can be created by complementing a selection of core SCPP seminars with relevant foundational work in the philosophy and religion departments, as follows-

### I. Core SCPP Coursework:

Two seminars, chosen from the following three offerings-

#### **SCPP BC3333x- Genetics, Biodiversity & Society**

Module I: *Development & Valuation of Plant Genetic Resources-*

Science and consequence of plant breeding, biotechnology, and genetic engineering; costs & benefits of maintaining biodiversity; public policy issues & options.

-P. Ammirato, R. Sethi/S. Pereira

Module II: *Genetic Technology & Society-*

Human genome project, scientific basis and interpretation of genetic screening; individual choice, social implications, and ethical issues.

-B. Morton, D. Spar

#### **SCPP BC3334y- Science, State Power & Ethics**

A comparative study of scientists and state power during the 20th century, with particular emphasis on Nazi Germany, the WWII America & communist Soviet Union. The focus is on the stakes involved in harnessing scientific advances to state power; the specifics of these scientific advances; and the moral dilemmas faced by scientists such as Robert Oppenheimer, Andrei Sakharov, and Werner Heisenberg, as they confronted state power or acquiesced to its demands during WWII and the early stages of the Cold War. Readings include selections from Rhodes' Pulitzer Prize-winning *The Making of the Atomic Bomb*, Frayn's very successful play *Copenhagen*, Brecht's *Life of Galileo*, as well as *Hitler's Uranium Club*, by the physicist Jeremy Bernstein.

- T. Halpin-Healy, D. Pious.

#### **SCPP BC3335x- Environmental Leadership, Ethics & Action**

An engaged examination of the inevitable consequences of Human interaction with the Earth's ecosystem. Module I- *The Individual Relationship of Mankind to the Natural World*. Human role in environmental decline. Module II- *The Community: Coming Together for the Greater Good*. Key

theories of environmental ethics and social justice. Module III- *Environmental Stewardship: Successful Models of Leadership*. Student teams research and create stewardship projects.  
-R. Balmer, D. Dittrick, L. Wright.

## **II. Philosophy Department Coursework:**

*a) Introductory level;*

ONE of the following, to provide the necessary philosophical foundation:

**PHIL BC1001x,y- Introduction to Philosophy**

**PHIL C1010x,y- Methods/Problems of Philosophical Thought**

&

*b) Advanced level;*

TWO lecture courses, drawn from the following:

**PHIL V2593y- Science & Religion**

(702 Hamilton; Philip Kitcher)

**PHIL V2702x- Contemporary Moral Problems**

(517 Hamilton; Macalaster Bell)

**PHIL V3701x/y- Ethics/Moral Philosophy**

(207 Milbank; Stephanie Beardman)

**PHIL V3720y- Ethics & Medicine**

(302 Milbank; Saul Fisher)

In years in which they are offered, an ethics course in the Religion Department, such as:

**RELI V3000y- Buddhist Ethics, RELI V3338x- Jewish Ethics, RELI V3490y- Christian Ethics**

may be substituted for one of the advanced level Philosophy courses listed above. In addition, with approval of the SCPP Director, other Morningside campus courses [e.g., **HIST BC 3305- Bodies & Machines, HIST BC 4909- History of Environmental Thinking, HIST BC4064- Medieval Science & Society, WMST BC3131- Women & Science**] bearing great relevance to issues of science & society may permit a similar substitution.