

HISTORY AND PHILOSOPHY OF SCIENCE AND TECHNOLOGY

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Courses offered by the Program in History and Philosophy of Science and Technology have the subject code HPS, and are listed in the "History and Philosophy of Science and Technology (HPS) Courses" section of this bulletin.

The Program in History and Philosophy of Science and Technology (HPST) teaches students to examine the sciences, medicine and technology from myriad perspectives, conceptual, historical and social. Our community of scholars includes core faculty and students in History and Philosophy and affiliated members in Classics, Anthropology, English, Political Science, Communication and other disciplines. Together, we draw upon the multiple methods of our disciplines to study the development, functioning, applications and social and cultural engagements of the sciences.

Stanford's Program in History and Philosophy of Science and Technology is a collaborative enterprise of the Departments of History and Philosophy. Each department has its own undergraduate and graduate degree programs in this area, but these overlap and interact through the structure of requirements, advising, team-taught courses, an active graduate student community and a shared colloquium series.

The program's courses span a period from antiquity to the late 20th century, with emphasis on: ancient science; Renaissance science; the Scientific Revolution; Enlightenment and transatlantic science; history of medicine and the body; history and philosophy of biology; history and philosophy of modern physics; history of the philosophy of science in the modern period; and gender, science, and technology.

UNDERGRADUATE DEGREES

The Department of History offers an interdisciplinary track in History, Science, and Medicine; the Department of Philosophy offers a degree field in History and Philosophy of Science.

GRADUATE DEGREES

Graduate students in the Program in History and Philosophy of Science and Technology can pursue a Ph.D. either in History, through its Ph.D. field in History of Science, Medicine and Technology, or in Philosophy, through its Ph.D. field in Philosophy of Science. Students completing the requirements of the HPST program graduate with a diploma stating their concentration in HPST.

The following courses may be used to fulfill optional course requirements:

INTRODUCTORY

HPS/PHIL 60. Introduction to Philosophy of Science

PHIL 16N. Values and Objectivity

PHIL 15N. Freedom, Community, and Morality

SCIENCE IN HISTORY

This sequence is designed to introduce students to the history of Science from antiquity to the 20th century. Students are advised to take most or all of this sequence as a core foundation.

CLASSGEN 22N. Technologies of Civilization: Writing, Number, and Money

HISTORY 31/STS 125/225. Science, Technology, and Art: The Worlds of Leonardo

HISTORY 41A. The Emergence of Modern Medicine

HISTORY 44N. The History of Women and Gender in Science, Medicine, and Engineering

OSPFLOR 44. The Revolution in Science: Galileo and the Birth of Modern Scientific Thought

MEDICINE IN HISTORY

This sequence is designed to introduce students to the history of medicine from antiquity to the 20th century. Students are advised to take most or all of this sequence as a core foundation.

HPS 156. History of Women and Medicine in the United States

HISTORY 243G/343G. Tobacco Ad Health in World History

PHILOSOPHICAL PERSPECTIVES ON SCIENCE, MEDICINE, AND TECHNOLOGY

This sequence is designed to introduce students to the philosophy of science. Students are advised to take HPS 60 above as a starting point, and combine a number of the electives listed below in conjunction with courses in the other concentrations that address their specific interests.

FEMST 166/PHIL 184F/284F. Feminist Theories of knowledge

PHIL 107/207. Plato and Heraclitus

PHIL 115/215. Problems in Medieval Philosophy

PHIL 163/263. Significant Figures in Philosophy of Science

PHIL 164/264. Central Topics in the Philosophy of Science: Theory and Evidence

PHIL 165/265. Philosophy of Physics

PHIL 167A/267A. Philosophy of Biology

PHIL 167B/267B. Philosophy, Biology, and Behavior

PHIL 224. Kant's Philosophy of Physical Science

PHIL 360. Core Seminar in Philosophy of Science

PHIL 365. Seminar in Philosophy of Science: Time

ADVANCED

HISTORICAL PERSPECTIVES ON SCIENCE

The following courses focus on specific episodes in or approaches to the history of science.

HPS 154. What is Science? Explaining Nature from Pythagoras to Popper

FRENGEN 295. Science, Technology, and Society in Europe and the U.S.: Ethical Debates and Controversies

HISTORY 208A/308A. Science and the Law in History

HISTORY 232F/332F. The Scientific Revolution

HISTORY 241F/341F. History of the Modern Fact

HISTORY 241G/341G/STS 134/234. History of the Senses

HISTORY 241S. Science and Culture Wars

CONTEMPORARY PERSPECTIVES ON SCIENCE, MEDICINE, AND TECHNOLOGY

The following courses focus on contemporary cultural and social science approaches to science, technology, and medicine.

HPS 199. Directed Reading

HPS 299. Graduate Individual Work
ANTHRO 180. Science, Technology, and Gender
HISTORY 242G. Representing the World: Maps, Statistics, and
Photography
HISTORY 243C/343C. 18th-Century Colonial Science and
Medicine
HISTORY 243S/443A. Human Origins: History, Evidence, and
Controversy
HISTORY 244C/444C. The History of the Body in Science,
Medicine, and Culture
HUMBIO 175. Healthcare as Seen Through Medical History,
Literature, and the Arts

HISTORY AND PHILOSOPHY OF SCIENCE (HPS) COURSES

For information on the Program in History and Philosophy of Science, see the “History and Philosophy of Science” section of this bulletin.

UNDERGRADUATE COURSES IN HISTORY AND PHILOSOPHY OF SCIENCE

HPS 60. Introduction to Philosophy of Science

(Same as PHIL 60.) 20th-century views on the nature of scientific knowledge. Logical positivism and Popper; the problem of induction; Kuhn, Feyerabend, and radical philosophies of science; subsequent attempts to rebuild moderate empiricist and realist positions. GER:DB-Hum

5 units, Aut (Ryckman, T)

HPS 61. Science, Religion, and the Birth of Modern Philosophy

(Same as PHIL 61.) Galileo’s defense of the Copernican world-system that initiated the scientific revolution of the 17th century, led to conflict between science and religion, and influenced the development of modern philosophy. Readings focus on Galileo and Descartes. GER:DB-Hum

5 units, not given this year

HPS 154. What is Science? Explaining Nature from Pythagoras to Popper

How many great changes in science were accompanied by changes in method. Case studies of scientific practice from ancient Greece to the 20th century; how theory and practice have influenced each other. What kinds of science and technology emerged under different methods; how science influenced ideas about knowledge, discovery, and truth. What is or is not science, such as the debate over intelligent design. GER:DB-Hum

5 units, Win (McCaskey, J)

HPS 156. History of Women and Medicine in the United States

Women’s bodies in sickness and health, and encounters with lay and professional healers from the 18th century to the present. Historical construction of thought about women’s bodies and physical limitations; sexuality; birth control and abortion; childbirth; adulthood; and menopause and aging. Women as healers, including midwives, lay physicians, the medical profession, and nursing. GER:EC-Gender

5 units, Aut (Horn, M)

HPS 199. Directed Reading

1-15 units, Aut (Staff), Win (Staff), Spr (Staff), Sum (Staff)

GRADUATE COURSES IN HISTORY AND PHILOSOPHY OF SCIENCE

Primarily for graduate students; undergraduates may enroll with consent of instructor.

HPS 299. Graduate Individual Work

May be repeated for credit.

1-15 units, Aut (Staff), Win (Staff), Spr (Staff), Sum (Staff)

OVERSEAS STUDIES COURSES IN HISTORY AND PHILOSOPHY OF SCIENCE

For course descriptions and additional offerings, see the respective “Overseas Studies” courses section of this bulletin or <http://bosp.stanford.edu>. Students should consult their program’s student services office for applicability of Overseas Studies courses to a major or minor program.

FLORENCE HISTORY AND PHILOSOPHY OF SCIENCE COURSES

OSPFLOR 44. The Revolution in Science: Galileo and the Birth of Modern Scientific Thought

5 units, Win (Galluzzi, P)