Science Studies

Program Director, Robert S. Westman

PROFESSORS

William Bechtel, Ph.D., *Philosophy*
Craig Callender, Ph.D., *Philosophy*
Lisa Cartwright, Ph.D., *Communication*
Nancy Cartwright, Ph.D., *Philosophy*
Paul M. Churchland, Ph.D., *Philosophy*
Gerald D. Doppelt, Ph.D., *Philosophy*
Chandra Mukerji, Ph.D., *Communication*
Naomi Oreskes, Ph.D., *History*
Andrew Scull, Ph.D., *Sociology*
Eric Watkins, Ph.D., *Philosophy*
Robert S. Westman, Ph.D., *History*

PROFESSOR EMERITUS

Martin J.S. Rudwick, Ph.D., *History*

ASSOCIATE PROFESSORS

Tal Golan, Ph.D., *History*
Martha Lampland, Ph.D., *Sociology*
David Serlin, Ph.D., *Communication*
Charles Thorpe, Ph.D., *Sociology*

ASSISTANT PROFESSORS

Morana Alac, Ph.D., *Communication*
Kelly Gates, Ph.D., *Communication*
Cathy Gere, Ph.D., *History*
Christian Wuthrich, Ph.D., *Philosophy*

AFFILIATED FACULTY/RESEARCHERS

Karen Baker, M.D., *Scripps Institution of Oceanography*
Roddey Reid, Ph.D., *Literature*
Linda Strauss, Ph.D., *Sixth College*

OFFICE: 5045 Humanities and Social Sciences Building, Muir College
http://sciencestudies.ucsd.edu/

The Science Studies Program at UC San Diego is an interdisciplinary Ph.D. program committed to working toward a deeper understanding of scientific knowledge and technological change, past and present. The program offers students an opportunity to integrate the perspectives developed in communication studies and the history, sociology, and philosophy of science, while receiving a thorough training at a professional level in one of the component disciplines. Students enrolled in the program choose one of the four disciplines for their major field of specialist studies and are required to complete minor field requirements in the others. Students are also required to take the Introduction to Science Studies, Advanced Approaches to Science Studies, and two interdisciplinary, topical "core" seminars, and to attend the program colloquium. Science studies students are encouraged to select dissertation topics that offer scope for a cross-disciplinary approach. The Ph.D. will be awarded in Communication (Science Studies), History (Science Studies), Sociology (Science Studies), or Philosophy (Science Studies). In special circumstances, students may be permitted to work for the M.A. degree.

COURSES

For course descriptions not found in the UC San Diego General Catalog, 2010–11, please contact the department for more information.

GRADUATE

COGR 225A, HIGR 238, PHIL 209A, SOCG 255A. Introduction to Science Studies (4)
Study and discussion of classic work in history of science, sociology of science, and philosophy of science, and of work that attempts to develop a unified science studies approach. Required for all students in the Science Studies Program. **Prerequisite:** enrollment in Science Studies Program.

COGR 225B, HIGR 239, PHIL 209B, SOCG 255B. Seminar in Science Studies (4)
Study and discussion of selected topics in the science studies field. Required for all students in the Science Studies Program. The topic varies from year to year, and students may, therefore, repeat the course for credit. **Prerequisite:** enrollment in Science Studies Program.

COGR 225C, HIGR 240, PHIL 209C, SOCG 255C. Colloquium in Science Studies (4)
A forum for the presentation and discussion of research in progress in science studies, by graduate students, faculty, and visitors. Required for all students in the Science Studies Program. **Prerequisite:** enrollment in the Science Studies Program.

COGR 225D, HIGR 241, PHIL 209D, SOCG 255D. Advanced Approaches to Science Studies (4)
Contemporary themes and problems in Science Studies. Focus on recent literature in the history, philosophy and sociology of science, technology, and medicine. Required of all students in the Science Studies Program. **Prerequisites:** completion of COGR 225A, HIGR 238, PHIL 209A, or SOCG 255A; enrollment in Science Studies Program; or instructor's permission.

HIGR 235. Science, Empire, and Exploration (4)
Examines links between scientific work, particularly expeditions and exploration, and political programs of empire in the seventeenth to twentieth centuries. Topics: collecting expeditions as expressions of empire; role of colonial administrative networks in facilitating field-based investigations; relation between European and non-European knowledge systems. **Prerequisite:** graduate standing or consent of instructor.

HIGR 236A-B. Seminar in History of Science (4-4)
A two-quarter research seminar, comprising intensive study of a specific topic in the history of science. The first quarter will be devoted to readings and discussions; the second chiefly to the writing of individual research papers. The topic varies from year to year, and students may repeat the course for credit. (IP grade to be awarded the first quarter; final grade will be given at the end of the second quarter.) **Prerequisite:** graduate standing.

HIGR 242. Topics in the History of Earth and Life Sciences (4)
Intensive study of specific problems in the history of the life sciences and earth sciences, ranging in period from the Renaissance to the twenty-first century. May be repeated for credit as topics will vary annually. **Prerequisite:** graduate standing.

HIGR 243. Historical Scholarship in Technology (4)
An introduction to the historiography of technology. This reading seminar provides an overview of scholarly approaches to the history of technology by critically examining classic and contemporary works in the field. **Prerequisite:** graduate standing or consent of instructor.

HIGR 244. Introduction to Sound Studies (4)
Study and discussion of classic and recent scholarship on sound production and cultures of listening. Emphasizes historical literature but also includes works in literary studies, art history, music, and other fields.

HISC 160. Historical Approaches to the Study of Science (4)
This colloquium course will introduce students to the rich variety of ways in which the scientific enterprise is currently being studied historically. Major recent publications on specific topics in the history of science selected to illustrate this diversity will be discussed and analyzed; the topics will range in period from the seventeenth century to the late twentieth, and will deal with all major branches of natural science. Requirements will vary for undergraduate, M.A., and Ph.D. students. Graduate students may be expected to submit a more substantial piece of work. **Prerequisites:** consent of instructor; department stamp required.

HISC 163/263. History, Science, and Politics of Climate Change (4)
The complex historical development of human understanding of global climate change, including key scientific work, and the cultural dimensions of proof and persuasion. Special emphasis on the differential political acceptance of the scientific evidence in the U.S. and the world. Graduate students are required to submit an additional paper. **Prerequisite:** upper-division or graduate standing; department stamp required.

HISC 164/264. Topics in the History of the Physical Sciences (4)
Intensive study of specific problems in the physical (including chemical and mathematical) sciences, ranging in period from the Renaissance to the twentieth century. Topics vary from year to year, and students may therefore repeat the course for credit. Requirements will vary for undergraduate, M.A., and Ph.D. students. Graduate students may be expected to submit a more substantial piece of work. **Prerequisites:** consent of instructor; department stamp required.

HISC 165. Topics in Twentieth-Century Science and Culture (4)
This is a seminar open to advanced undergraduate and graduate students that explores topics at the interface of science, technology, and culture, from the late nineteenth century to the present. Topics change yearly; may be repeated for credit with instructor's consent. Requirements vary for undergraduates, M.A., and Ph.D. students. Graduate students are required to submit a more substantial piece of work. **Prerequisites:** upper-division standing or consent of instructor; department stamp required.

HISC 166/266. The Galileo Affair (4)
Galileo's condemnation by the Catholic Church in 1633 is a well-known but misunderstood episode. Was Galileo punished for holding dangerous scientific views? Personal arrogance? Disobedience? Religious transgressions? Readings in original sources, recent historical interpretations. Graduate students will be expected to submit a more substantial piece of work. **Prerequisites:** upper-division standing or consent of instructor.

HISC 167/267. Gender and Science (4)
Why have women been traditionally excluded from science? How has this affected scientific knowledge? How have scientists constructed gendered representations not only of women, but also of science and nature? We will address these questions from perspectives including history, philosophy, and psychoanalytic theory. **Prerequisite:** upper-division standing or consent of instructor.

HISC 168/268. The Extraterrestrial Life Question (4)
The changing fortunes of the belief in the existence of life beyond the Earth (pluralism) from 1750–present as it evolved from a marginal speculation to a central scientific question with wide-ranging consequences for traditional religious belief systems. **Prerequisite:** upper-division standing or graduate standing or consent of instructor. Graduate students will be expected to submit a more substantial piece of work.

HISC 170/270. Topics in the History of Science and Technology (4)
This seminar explores topics at the interface of science, technology, and society, ranging from the seventeenth century to the twentieth. Requirements will vary for undergraduate, M.A., and Ph.D. students. Graduate students are required to submit an additional paper. **Prerequisite:** upper-division standing or consent of instructor; department stamp required.

HISC 172/272. Building America: Technology, Culture, and the Built Environment in the United States (4)
The history of the built environment in the United States, from skyscrapers to suburbs, canals and railroads to factories and department stores. The technological history of structures and infrastructures, and the social and cultural values that have been "built into" our material environment. Graduate students are required to submit an additional paper. **Prerequisite:** upper-division standing or consent of instructor; department stamp required.

Phil. 204A. Core Course in Philosophy of Science (4)
An introduction to one or more central problems in the philosophy of science, or in the philosophy of one of the particular sciences, such as the nature of confirmation and explanation, the nature of scientific knowledge, reductionism, the unity of science, or realism and antirealism. May be taken for credit three times with changed content.

Phil. 245. Philosophy of Science (4)
This seminar will cover current books and theoretical issues in the philosophy of science. May be taken for credit seven times with changed content.

Phil. 247. Philosophy of Biology (4)
Historical and contemporary perspectives on foundational issues about biology. May include questions about the nature of biological explanation, the relation of biology to chemistry and physics, the status of attributions of function, and the relation of biology to the social sciences. May be taken for credit six times with changed content.

Phil. 250A. Philosophy of the Cognitive Sciences (4)
Contemporary debates about the study of the mind-brain as studied in one or more of the empirical cognitive sciences. May include questions about the different strategies of explanation invoked, the conceptions of representation employed, the connections between theoretical models developed. May be taken for credit six times with changed content.

Phil. 280. Philosophy of Science Topics and Methods (1-2)
This course meets weekly to discuss recent books or articles in philosophy of science. The reading is designed both for students doing active research in the field and for those seeking to gain some familiarity with it. Can be taken nine times for credit with changed content. **Prerequisite:** graduate standing or consent of instructor.

Soc/G 234. Intellectual Foundation of the Study of Science, Technology, and Medicine (4)
This course focuses on some classic methodological and theoretical resources upon which the sociology of science, technology, and medicine all draw. It gives special attention to relationships between knowledge and social order, and between knowledge and practice, that are common to science, technology, and medicine. **Prerequisites:** graduate standing.

Soc/G 247. Madness and Society (4)
An examination of the changing Western responses from the age of Bedlam to the age of Prozac. Topics include: the rise and decline of the total institution; the emergence of psychiatry; changing cultural meanings of madness; and the therapeutics of mental disorder. **Prerequisite:** graduate standing.

Soc/G 249. Technology and the Human (4)
This course explores the ethical and political implications of technological interventions into human life. Approaches from science studies, the sociology of the body, and philosophy. Topics include transformations in domains of life such as work, health, childhood, and death. **Prerequisite:** graduate standing.

Soc/G 283. The Making of Modern Medicine (4)
An examination of the intellectual, social, cultural, and political dimensions of the Transformation of Western medicine from 1750 to 1900, with a primary focus on Anglo-American developments. **Prerequisite:** graduate standing.

Soc/G 284. Contemporary Biomedicine (4)
Develops central themes in medical sociology in order to understand twentieth- and twenty-first-century medical practice and research. Topics include authority and expertise; health inequalities; managed care; health activism; biomedical knowledge production; and the construction of medical objects and subjects. **Prerequisite:** graduate standing.

Soc/G 288. Knowledge Capitalism (4)
This seminar examines the place of scientific knowledge and information and communication technology in the transformation of capitalist economy and society. The class explores new interactions between science studies and the social theory of advanced capitalism. Prerequisite: graduate standing.