PROGRAM OF STUDY

The BA program in the History, Philosophy, and Social Studies of Science and Medicine (HIPS) is designed for College students interested in studying science in terms of its historical development, conceptual structure, and social role. Students in the program must do sufficient work in one or more sciences to acquire a sound foundation for studying the nature of science. After securing this basis, they are expected to gain an understanding of how science arose, as well as how the content of scientific thought has changed and is changing, because of both its own internal dynamic and its interaction with the larger society in which it is embedded.

The HIPS program is designed to make possible the study of a wide range of social, historical, and conceptual issues relating to science. Students completing the program follow a number of different careers. Some pursue graduate study in the history and philosophy of science or in some field of science. Others find the program valuable preparation for the study of medicine, law, public policy, or science journalism. More generally, the goal of the program is to provide students with a sound basis on which to interpret and evaluate science and science policy. Some students choose to construct a degree program combining the requirements for the HIPS major with those for a major in the physical or biological sciences. Others, having met the HIPS program requirements, use electives to broaden their liberal arts education.

Students in other fields of study may also complete a minor in HIPS. Information follows the description of the major.

HIPS Sponsor

The Morris Fishbein Center for the History of Science and Medicine sponsors the HIPS program. Further information can be obtained in the center’s office (SS 207) and at fishbein.uchicago.edu.

PROGRAM REQUIREMENTS

Elements of the Curriculum. The curriculum of the program contains five principal elements:

1. The Foundation. All students must:

   a. complete an approved sequence that fulfills the biological sciences general education requirement;

   b. complete the general education requirement in the physical sciences with a physics sequence (PHYS 12100-12200 General Physics I-II or equivalent) or a chemistry sequence (CHEM 11100-11200 Comprehensive General Chemistry I-II, CHEM 10100 Introductory General Chemistry I and CHEM 10200
Introductory General Chemistry II, or equivalent), or have earned a score of 5 on the AP Chemistry or Physics test or a score of 4 or 5 on the AP Physics C Mechanics and E&M test;

c. complete a calculus sequence (MATH 13100-13200 Elementary Functions and Calculus I-II or higher), or have earned a score of 5 on the AP Calculus BC test;

d. complete a three-quarter sequence surveying the growth of science in Western civilization, with three courses from either the HIPS 17300-17400-17501-17502 sequence or the HIPS 17400-17402-17502-17503 sequence.

2. Advanced Science. In addition to the science courses typically taken as part of the general education requirements, students are expected to take three courses in science, social sciences, or mathematics beyond the introductory level. They select these advanced courses according to their special aims, their area of concentration, and the subject of their bachelor’s thesis.

3. Areas of Concentration. All students in the program determine an area of concentration in the anthropology, ethics, history, philosophy, or sociology of science and medicine. In consultation with the program director and their program adviser, students select five courses to constitute this concentration area. For example, some students may be particularly interested in the intellectual and social interactions between changing scientific knowledge and institutions, on the one hand, and evolving social institutions, on the other; a second group may be concerned with either epistemological issues related to the growth of science or moral and political problems attending the employment of technology; and a third group may wish to emphasize the study of science as a social or cultural activity.

4. Tutorials. Students are required to take two tutorial courses; this is typically done early in their program. With a specific focus that changes each year, these tutorials are small classes (from three to ten students) that emphasize discussion and writing. An updated list of courses is available in the HIPS office (SS 207) or at timeschedules.uchicago.edu.

5. Bachelor’s Thesis and Junior Seminar. Third-year students enroll in a designated one-quarter seminar (HIPS 29800 Junior Seminar: My Favorite Readings in the History and Philosophy of Science) that deals with general aspects of history, philosophy, and social studies of science and medicine. In Spring Quarter of their third year, students must discuss their proposal for their bachelor’s thesis with the program director. In consultation with the program director, students then sign up for a reading and research course (HIPS 29700 Readings and Research in History, Philosophy, and Social Studies of Science and Medicine) with an appropriate faculty member. In their fourth year, this research course should lead to a bachelor’s thesis (HIPS 29900 Bachelor’s Thesis) that integrates each student’s academic studies, bringing them to bear on a significant question related to some historical, conceptual, ethical, or social aspect of science. Fourth-year students also enroll in a two-quarter HIPS 29810 Bachelor’s Thesis Workshop, which is comprised of meetings that focus on organizing, researching, writing, and revising the thesis.
**SUMMARY OF REQUIREMENTS**

**GENERAL EDUCATION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HIPS 17300</td>
<td>Science, Culture, and Society in Western Civilization I</td>
</tr>
<tr>
<td>HIPS 17400</td>
<td>Science, Culture, and Society in Western Civilization II</td>
</tr>
<tr>
<td>HIPS 17501</td>
<td>Science, Culture, and Society in Western Civilization III: Medicine since the Renaissance</td>
</tr>
<tr>
<td>or HIPS 17502</td>
<td>Science, Culture, and Society in Western Civilization IV: Modern Science</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 17400</td>
<td>Science, Culture, and Society in Western Civilization II</td>
</tr>
<tr>
<td>HIPS 17402</td>
<td>Science, Culture, and Society in Western Civilization II: History of Medicine 1</td>
</tr>
<tr>
<td>HIPS 17503</td>
<td>Science, Culture, and Society in Western Civilization III: History of Medicine 2</td>
</tr>
<tr>
<td>or HIPS 17502</td>
<td>Science, Culture, and Society in Western Civilization IV: Modern Science</td>
</tr>
</tbody>
</table>

An approved sequence that fulfills the biological sciences general education requirement

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 10100 &amp; CHEM 10200</td>
<td>Introductory General Chemistry I and Introductory General Chemistry II (or equivalent)</td>
</tr>
<tr>
<td>CHEM 11100-11200</td>
<td>Comprehensive General Chemistry I-II (or equivalent)</td>
</tr>
<tr>
<td>PHYS 12100-12200</td>
<td>General Physics I-II (or higher)</td>
</tr>
<tr>
<td>MATH 13100-13200</td>
<td>Elementary Functions and Calculus I-II (or higher)</td>
</tr>
</tbody>
</table>

Total Units 900

**MAJOR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Three courses in science, social sciences, or mathematics beyond the introductory level</td>
<td>300</td>
</tr>
<tr>
<td>Five courses in an area of concentration</td>
<td>500</td>
</tr>
<tr>
<td>Two tutorials</td>
<td>200</td>
</tr>
<tr>
<td>HIPS 29700</td>
<td>Readings and Research in History, Philosophy, and Social Studies of Science and Medicine</td>
</tr>
<tr>
<td>HIPS 29800</td>
<td>Junior Seminar: My Favorite Readings in the History and Philosophy of Science</td>
</tr>
<tr>
<td>HIPS 29900</td>
<td>Bachelor’s Thesis</td>
</tr>
<tr>
<td>HIPS 29810</td>
<td>Bachelor’s Thesis Workshop</td>
</tr>
</tbody>
</table>

Total Units 1400
Credit may be granted by examination.

Examples of Concentrations

The following are meant to illustrate areas of concentration. They are not prescriptive, only suggestive. For the particular courses that might constitute their area of concentration, students should consult with the director of the program, examine this course catalog, and visit timeschedules.uchicago.edu.

**History and Philosophy of Biological Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 22700</td>
<td>Philosophical Problems in the Biological Sciences</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 23600</td>
<td>History and Theory of Human Evolution</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 23900</td>
<td>Biological and Cultural Evolution</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 25801</td>
<td>Evolutionary Theory and Its Role in the Human Sciences</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 28202</td>
<td>Topics in Philosophy of Science: Mechanism and Causation</td>
<td>100</td>
</tr>
</tbody>
</table>

**Philosophy of Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 20300</td>
<td>Scientific/Technological Change</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 22000</td>
<td>Introduction to the Philosophy of Science</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 22300</td>
<td>Philosophy of Social Science</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 24900</td>
<td>Natural Philosophy 1200–1800</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 25400</td>
<td>Philosophy of Mind and Science Fiction</td>
<td>100</td>
</tr>
</tbody>
</table>

**History of Medicine and Medical Ethics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 14900</td>
<td>History of Medicine since the Renaissance</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 21400</td>
<td>Intro To Medical Ethics</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 21600</td>
<td>Advanced Medical Ethics: Health Care</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 25900</td>
<td>Darwinian Medicine</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 27300</td>
<td>Medicine and Culture</td>
<td>100</td>
</tr>
</tbody>
</table>

Admission

To be eligible for admission, students should have completed at least two of the four foundation course sequences listed in the preceding section and should have maintained a 3.2 GPA or higher in previous course work. Students should apply for admission no later than Autumn Quarter of their third year to the director of the program. The director advises students about the requirements, arranges a preliminary plan of study, and discusses scheduling conflicts and special cases. Thereafter, a student chooses, in consultation with the director, a BA adviser from the staff.

HONORS

Students who meet the following criteria are considered for graduation with honors: (1) overall GPA of 3.3 or higher, (2) completion of a bachelor’s thesis of A quality, and (3) a majority vote by the faculty in favor of honors.
GRADING

Students majoring in HIPS must receive quality grades in all courses meeting the requirements of the degree program, except HIPS 29810 Bachelor’s Thesis Workshop must be taken for P/F grading. Nonmajors may take courses for P/F grading with consent of instructor.

ADVISERS

Drawn from many parts of the University, those listed in the Faculty Section of the HIPS program have direct responsibility for admitting students, formulating curriculum, and advising students.

MINOR PROGRAM IN HISTORY, PHILOSOPHY, AND SOCIAL STUDIES OF SCIENCE AND MEDICINE

Students in other fields of study may complete a minor in HIPS, in particular, the minor program in HIPS offers students who are majoring in science the opportunity to gain an understanding of the conceptual, historical, and social contexts in which their disciplines are situated.

The minor requires a total of six courses. Courses in the minor (1) may not be double counted with the student’s major(s) or with other minors and (2) may not be counted toward general education requirements. Courses in the minor must be taken for quality grades, and more than half of the requirements for the minor must be met by registering for courses bearing University of Chicago course numbers.

Students should take at least two courses from either the sequence HIPS 17300-HIPS 17400-HIPS 17501-HIPS 17502 Science, Culture, and Society in Western Civilization I-II-III-IV or from the sequence HIPS 17400-HIPS 17402-HIPS 17503-HIPS 17502 Science, Culture, and Society in Western Civilization II-II-III-IV to meet the general education requirement in civilization studies. Additional courses in these sequences that are not used to meet the general education requirement can count toward courses required for the minor.

Students must complete one tutorial course.

The remaining five courses for the minor program should constitute an area of concentration in the anthropology, ethics, history, philosophy, or sociology of science and medicine. Students select the courses that constitute this concentration in consultation with the program director and their program adviser.

Students who elect the minor program in HIPS should meet with the program director before the end of Spring Quarter of their third year to declare their intention to complete the program. The director’s approval for the minor program should be submitted to the student's College adviser by the deadline above on a form obtained from the adviser.

The following groups of courses would satisfy the requirements for a minor in HIPS. They are only meant to illustrate possible plans of study; they are not prescriptive.
### Group 1

**Tutorial:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 29405</td>
<td>Tutorial: Evolution and Pragmatism</td>
</tr>
</tbody>
</table>

**Concentration in History and Philosophy of Biology:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 22700</td>
<td>Philosophical Problems in the Biological Sciences</td>
</tr>
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<td>HIPS 23600</td>
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</tr>
<tr>
<td>HIPS 28202</td>
<td>Topics in Philosophy of Science: Mechanism and Causation</td>
</tr>
</tbody>
</table>

### Group 2

**Tutorial:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 29606</td>
<td>Tutorial: Medicine, Disease, and Death in American History</td>
</tr>
</tbody>
</table>

**Concentration in History of Medicine and Medical Ethics:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HIPS 17501</td>
<td>Science, Culture, and Society in Western Civilization III: Medicine since the Renaissance (if not taken to meet general education requirements)</td>
</tr>
<tr>
<td>HIPS 21400</td>
<td>Intro To Medical Ethics</td>
</tr>
<tr>
<td>HIPS 21600</td>
<td>Advanced Medical Ethics: Health Care</td>
</tr>
<tr>
<td>HIPS 24800</td>
<td>Gender and History and Science Technology and Medicine</td>
</tr>
<tr>
<td>HIPS 27300</td>
<td>Medicine and Culture</td>
</tr>
</tbody>
</table>
HIPS 15002. Whales and Whaling in American History. 100 Units.
This course examines American intellectual, social, and cultural history through one of its most tremendous and least understood foils: whales. Since early in the history of European colonial incursions in North America, whales—along with smaller cetaceans such as dolphins and porpoises—have figured in American culture variously as natural resources to be exploited, sentient beings to be protected, and, more broadly, as the bases for ruminations on aesthetics and grandeur, self and other, economics and social organization, and science and power. From our vantage point between two of America’s earliest and most prosperous of whaling communities, New Bedford and Nantucket, this course will think through the conjoined histories of whales and (North American) humans, from the early days of whaling in the nascent United States through the rise of America’s industrial power and the decline of its whaling industry to its emergence as a leader in whale conservation and cetological science.
Instructor(s): M. Rossi
Prerequisite(s): Second-year students and beyond preferred. Good academic standing. Application and acceptance into the quarter-long program at the Marine Biological Laboratory in Woods Hole.
Equivalent Course(s): HIST 15002

This group of courses consists of two three-quarter sequences: HIPS 17300-17400-17501 or 17502, and HIPS 17400-17402-17503 or 17502. Taking these courses in sequence is recommended but not required. Each sequence meets the general education requirement in civilization studies. Each three-quarter sequence focuses on the origins and development of science in the West. Our aim is to trace the evolution of the biological, psychological, natural, and mathematical sciences as they emerge from the cultural and social matrix of their periods and, in turn, affect culture and society.

HIPS 17300. Science, Culture, and Society in Western Civilization I. 100 Units.
The first quarter examines the sources of Greek science in the diverse modes of ancient thought and its advance through the first centuries of our era. We look at the technical refinement of science, its connections to political and philosophical movements of fifth- and fourth-century Athens, and its growth in Alexandria.
Instructor(s): R. Richards Terms Offered: Not offered 2015-2016
Equivalent Course(s): HIST 17300

HIPS 17400. Science, Culture, and Society in Western Civilization II. 100 Units.
The second quarter is concerned with the period of the scientific revolution: the sixteenth to eighteenth centuries. The principal subjects are the work of Copernicus, Kepler, Galileo, Vesalius, Harvey, Descartes, and Newton.
Instructor(s): A. Johns Terms Offered: Autumn
Equivalent Course(s): HIST 17400
HIPS 17402. Science, Culture, and Society in Western Civilization II: History of Medicine 1. 100 Units.
This course examines the history of medicine from the Renaissance through the end of the eighteenth century, when many features of medicine that we now consider "modern" were coming into being. Topics include the history of anatomy and physiology, including Vesalius and Harvey; the history of relations between doctors and patients, including traditional medical practitioners and midwives; and the changing nature of the hospital.
Instructor(s): M. Rossi Terms Offered: Winter
Equivalent Course(s): HIST 17402

HIPS 17501. Science, Culture, and Society in Western Civilization III: Medicine since the Renaissance. 100 Units.
This course is an examination of various themes in the history of medicine in Western Europe and America since the Renaissance. Topics include key developments of medical theory (e.g., the circulation of the blood and germ theory), relations between doctors and patients, rivalries between different kinds of healers and therapists, and the development of the hospital and laboratory medicine.
Instructor(s): A. Winter Terms Offered: Not offered 2015-2016
Equivalent Course(s): HIST 17501

HIPS 17502. Science, Culture, and Society in Western Civilization IV: Modern Science. 100 Units.
The advances science has produced have transformed life beyond anything that a person living in 1833 (when the term "scientist" was first coined) could have anticipated. Yet science continues to pose questions that are challenging and, in some instances, troubling. How will our technologies affect the environment? Should we prevent the cloning of humans? Can we devise a politically acceptable framework for the patenting of life? Such questions make it vitally important that we try to understand what science is and how it works, even if we never enter labs. This course uses evidence from controversies (e.g., Human Genome Project, International Space Station) to throw light on the enterprise of science itself.
Instructor(s): J. Evans Terms Offered: Spring.
Equivalent Course(s): HIST 17502

HIPS 17503. Science, Culture, and Society in Western Civilization III: History of Medicine 2. 100 Units.
No description available.
Instructor(s): A. Winter Terms Offered: Spring
Equivalent Course(s): HIST 17503

HIPS 17400. Science, Culture, and Society in Western Civilization II. 100 Units.
The second quarter is concerned with the period of the scientific revolution: the sixteenth to eighteenth centuries. The principal subjects are the work of Copernicus, Kepler, Galileo, Vesalius, Harvey, Descartes, and Newton.
Instructor(s): A. Johns Terms Offered: Autumn
Equivalent Course(s): HIST 17400
HIPS 17402. Science, Culture, and Society in Western Civilization II: History of Medicine 1. 100 Units.
This course examines the history of medicine from the Renaissance through the end of the eighteenth century, when many features of medicine that we now consider "modern" were coming into being. Topics include the history of anatomy and physiology, including Vesalius and Harvey; the history of relations between doctors and patients, including traditional medical practitioners and midwives; and the changing nature of the hospital.
Instructor(s): M. Rossi Terms Offered: Winter
Equivalent Course(s): HIST 17402

HIPS 17501. Science, Culture, and Society in Western Civilization III: Medicine since the Renaissance. 100 Units.
This course is an examination of various themes in the history of medicine in Western Europe and America since the Renaissance. Topics include key developments of medical theory (e.g., the circulation of the blood and germ theory), relations between doctors and patients, rivalries between different kinds of healers and therapists, and the development of the hospital and laboratory medicine.
Instructor(s): A. Winter Terms Offered: Not offered 2015-2016
Equivalent Course(s): HIST 17501

HIPS 17502. Science, Culture, and Society in Western Civilization IV: Modern Science. 100 Units.
The advances science has produced have transformed life beyond anything that a person living in 1833 (when the term "scientist" was first coined) could have anticipated. Yet science continues to pose questions that are challenging and, in some instances, troubling. How will our technologies affect the environment? Should we prevent the cloning of humans? Can we devise a politically acceptable framework for the patenting of life? Such questions make it vitally important that we try to understand what science is and how it works, even if we never enter labs. This course uses evidence from controversies (e.g., Human Genome Project, International Space Station) to throw light on the enterprise of science itself.
Instructor(s): J. Evans Terms Offered: Spring.
Equivalent Course(s): HIST 17502

HIPS 17503. Science, Culture, and Society in Western Civilization III: History of Medicine 2. 100 Units.
No description available.
Instructor(s): A. Winter Terms Offered: Spring
Equivalent Course(s): HIST 17503

HIPS 20300. Scientific/Technological Change. 100 Units.
No description available.
Equivalent Course(s): CHSS 42300
HIPS 20500. Intermediate Logic. 100 Units.
In this course, we will prove the soundness and completeness of standard deductive systems for both sentential and first-order logic. We will also establish related results in elementary model theory, such as the compactness theorem for first-order logic, the Löwenheim-Skolem theorem, and Lindström’s theorem. (B) (II)
Instructor(s): A. Vasudevan Terms Offered: Winter
Equivalent Course(s): CHSS 33600, PHIL 39600, PHIL 29400

HIPS 20700. Elementary Logic. 100 Units.
An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.
Instructor(s): K. Davey Terms Offered: Autumn
Note(s): Course not for field credit.
Equivalent Course(s): CHSS 33500, PHIL 30000, PHIL 20100

HIPS 20800. Evolutionary Processes. 100 Units.
No description available.
Terms Offered: Autumn
Prerequisite(s): Consent of instructor
Note(s): This course does not meet requirements for the biological sciences major.

HIPS 21000. Introduction to Ethics. 100 Units.
In this course, we will read, write, think, and talk about moral philosophy, focusing on two classic texts, Immanuel Kant’s *Groundwork of the Metaphysics of Morals* and John Stuart Mill’s *Utilitarianism*. We will work through both texts carefully, and have a look at influential criticisms of utilitarianism and of Kant’s ethics in the concluding weeks of the term. This course is intended as an introductory course in moral philosophy. Some prior work in philosophy is helpful, but not required. (A)
Instructor(s): B. Callard Terms Offered: Autumn
Equivalent Course(s): PHIL 21000, FNDL 23107

HIPS 21100. Celebrity and Science in Paleoanthropology. 100 Units.
This seminar explores the balance among research, “showbiz” big business, and politics in the careers of Louis, Mary, and Richard Leakey; Alan Walker; Donald Johanson; Jane Goodall; Dian Fossey; and Biruté Galdikas. Information is gathered from films, taped interviews, autobiographies, biographies, pop publications, instructor’s anecdotes, and samples of scientific writings.
Instructor(s): R. Tuttle Terms Offered: Not offered 2015-16; will be offered 2016-17
Equivalent Course(s): ANTH 21406, ANTH 38300
HIPS 21200. Big Science and the Birth of the National Security State. 100 Units.
This course examines the mutual creation of big science and the American national security state during the Manhattan Project. It presents the atomic bomb project as the center of a new orchestration of scientific, industrial, military, and political institutions in everyday American life. Exploring the linkages between military technoscience, nation-building, and concepts of security and international order, we interrogate one of the foundation structures of the modern world system.
Instructor(s): J. Masco Terms Offered: TBD
Equivalent Course(s): ANTH 22400, ANTH 34900

HIPS 21301. The Anthropology of Science. 100 Units.
Reading key works in the philosophy of science, as well as ethnographic studies of scientific practices and objects, this course introduces contemporary science studies. We interrogate how technoscientific "facts" are produced, discussing the transformations in social order produced by new scientific knowledge. Possible topics include the human genome project, biodiversity, and the digital revolution.
Instructor(s): J. Masco Terms Offered: TBD
Equivalent Course(s): ANTH 22105, ANTH 32300

HIPS 21400. Intro To Medical Ethics. 100 Units.
No description available.
Equivalent Course(s): BIOS 29281

HIPS 22000. Introduction to the Philosophy of Science. 100 Units.
We will begin by trying to explicate the manner in which science is a rational response to observational facts. This will involve a discussion of inductivism, Popper's deductivism, Lakatos and Kuhn. After this, we will briefly survey some other important topics in the philosophy of science, including underdetermination, theories of evidence, Bayesianism, the problem of induction, explanation, and laws of nature. (B)
Instructor(s): K. Davey Terms Offered: Autumn

HIPS 22300. Philosophy of Social Science. 100 Units.
No description available.
Instructor(s): W. Wimsatt Terms Offered: Winter
Equivalent Course(s): CHSS 37700, PHIL 32900, PHIL 22900

HIPS 22401. Darwinian Health. 100 Units.
This course will use an evolutionary, rather than clinical, approach to understanding why we get sick. In particular, we will consider how health issues such as menstruation, senescence, pregnancy sickness, menopause, and diseases can be considered adaptations rather than pathologies. We will also discuss how our rapidly changing environments can reduce the benefits of these adaptations.
Instructor(s): J. Mateo Terms Offered: Winter
Prerequisite(s): Permission of instructor only.
Note(s): CHDV Distribution, A*
Equivalent Course(s): GNSE 21500, CHDV 21500
HIPS 22601. Medicine and Society in Twentieth-Century China. 100 Units.
This course is a survey of historical and anthropological approaches to medical knowledge and practice in twentieth-century China. Materials cover early modernizing debates, medicine and the state, Maoist public health, traditional Chinese medicine, and health and medicine in popular culture.
Instructor(s): J. Farquhar Terms Offered: TBD
Equivalent Course(s): ANTH 23600, ANTH 33610

HIPS 22700. Philosophical Problems in the Biological Sciences. 100 Units.
No description available.
Equivalent Course(s): CHSS 37600, PHIL 32700, EVOL 32700

HIPS 23000. The Organization of Knowledge. 100 Units.
This course explores several structures of knowledge that students may have encountered in their core and specialized education, with the goal of enabling students to identify and explore the implications of these different structures. We ask whether all knowledge is relative, and if so, to what? When things are structured differently, does that mean that knowledge is lost? Or are there several diverse ways of structuring knowledge, each of which may be viable? We read a wide range of classical and modern thinkers in various disciplines.
Instructor(s): W. Sterner Terms Offered: Spring
Prerequisite(s): Third- or fourth-year standing

HIPS 23500. Comparative Primate Morphology. 200 Units.
This course covers functional morphology of locomotor, alimentary, and reproductive systems in primates. Dissections are performed on monkeys and apes.
Instructor(s): R. Tuttle Terms Offered: TBD
Equivalent Course(s): ANTH 28300, ANTH 38200, EVOL 38200

HIPS 23600. History and Theory of Human Evolution. 100 Units.
This course is a seminar on racial, sexual, and class bias in the classic theoretic writings, autobiographies, and biographies of Darwin, Huxley, Haeckel, Keith, Osborn, Jones, Gregory, Morton, Broom, Black, Dart, Weidenreich, Robinson, Leakey, LeGros-Clark, Schultz, Straus, Hooton, Washburn, Coon, Dobzhansky, Simpson, and Gould.
Instructor(s): R. Tuttle Terms Offered: Winter
Equivalent Course(s): ANTH 21102, ANTH 38400, EVOL 38400

HIPS 23700. Apes and Human Evolution. 100 Units.
No description available.
Instructor(s): R. Tuttle Terms Offered: Spring
Note(s): BIOS 23241 recommended.

HIPS 23900. Biological and Cultural Evolution. 100 Units.
No description available.
Instructor(s): W. Wimsatt, S. Mufwene Terms Offered: Winter
Prerequisite(s): Third- or fourth-year standing, or consent of instructor required; core background in genetics and evolution recommended
Note(s): This course does not meet requirements for the biological sciences major.
HIPS 24000. Evolution of the Hominioidea. 200 Units.
This course is a detailed consideration of the fossil record and the phylogeny of Hominidae and collateral taxa of the Hominidea that is based upon studies of casts and comparative primate osteology.
Instructor(s): R. Tuttle Terms Offered: TBD
Prerequisite(s): Third- or fourth-year standing and consent of instructor
Equivalent Course(s): ANTH 28100, ANTH 38100, EVOL 38100

HIPS 24300. Foucault and The History of Sexuality. 100 Units.
This course centers on a close reading of the first volume of Michel Foucault’s *The History of Sexuality*, with some attention to his writings on the history of ancient conceptualizations of sex. How should a history of sexuality take into account scientific theories, social relations of power, and different experiences of the self? We discuss the contrasting descriptions and conceptions of sexual behavior before and after the emergence of a science of sexuality. Other writers influenced by and critical of Foucault are also discussed.
Instructor(s): A. Davidson Terms Offered: Autumn
Note(s): One prior philosophy course is strongly recommended.
Equivalent Course(s): PHIL 24800, CMLT 25001, FNDL 22001, GNSE 23100

HIPS 24335. Intro to Medical Anthropology & Critical Studies of Global Hea. 100 Units.
Ideas about health and the experience and interpretation of distress and illness are products of specific historical, social, economic, and cultural contexts. The physical body, however, constrains the shaping of these ideas. The aim of this course is to examine the way in which concepts about the body in health and in illness in any given society are reflections of specific kinds of social organization and political relations together with shared cultural values. The first module of the course will outline the major theoretical models for approaching the study of illness, health, and medicine, as objects of anthropological analysis. The second, third, and fourth modules of this course will variously examine historical, cultural, environmental, economic, and political considerations to provide a comprehensive global overview of the many factors that influence the health of individuals and populations. In each module we will explore specific themes, buttressed by ethnographic case studies: for example, medicine as a cultural system; different medical traditions; cross-cultural medicine; medicalization of the life-cycle; anthropology of the body; the social lives of medicines, reemerging infections, biomedical technologies; social suffering; and, finally, the political dimensions of health policy in the US and abroad.
Instructor(s): S. Brotherton Terms Offered: Autumn
Prerequisite(s): This course qualifies as a "Discovering Anthropology" selection for Anthropology Majors.
Equivalent Course(s): CHDV 24335, ANTH 24335

HIPS 24800. Gender and History and Science Technology and Medicine. 100 Units.
No description available.
Instructor(s): A. Winter Terms Offered: Spring
Equivalent Course(s): HIST 25100, HIST 35100, CHSS 45100
HIPS 25107. Sciences of Mind and the Moving Image. 100 Units.
This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences broadly construed, from the early days of cinema to the advent of fMRI. It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior—what they thought film could do that still photography, and unmediated human observation, could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work, to experimental films made by seasoned film-makers. We will explore how people used the recordings they made, in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers’ claims about mental processes—perception, memory, consciousness, and interpersonal influence—drew on their understandings of particular technologies.
Instructor(s): A. Winter
Terms Offered: Spring
Equivalent Course(s): CHSS 35107,HIST 25107,HIST 35107

HIPS 25110. Philosophy of History: Narrative and Explanation. 100 Units.
This lecture-discussion course will trace different theories of explanation in history from the nineteenth century to the present. We will examine the ideas of Humboldt, Ranke, Dilthey, Collingwood, Braudel, Hempel, Danto, and White. The considerations will encompass such topics as the nature of the past such that one can explain its features, the role of laws in historical explanation, the use of Verstehen history as a science, the character of narrative explanation, the structure of historical versus other kinds of explanation, and the function of the footnote. (II) (V)
Instructor(s): R. Richards
Terms Offered: Winter
Equivalent Course(s): HIST 35110,CHSS 35110,PHIL 20506,PHIL 30506,HIST 25110

HIPS 25203. Media Ecology: Embodiment and Software. 100 Units.
Media ecology examines how the structure and content of our media environments—online and offline, in words, images, sounds, and textures—affect human perception, understanding, feeling, and value; or alternatively, media ecology investigates the massive and dynamic interrelation of processes and objects, beings and things, patterns and matter. At stake are issues about agency—human or material—and about determinism—how does society or culture interact with or shape its technologies, or vice versa? This course investigates theories of media ecology by exploring systems of meanings that humans embody (cultural, social, ecological) in conjunction with the emerging field of software studies about the cultural, political, social, and aesthetic impacts of software (e.g., code, interaction, interface). In our actual and virtual environments, how do we understand performing our multiple human embodiments in relation to other bodies (organism or machine) in pursuit of social or political goals?
Instructor(s): M. Browning
Terms Offered: Autumn
Equivalent Course(s): HUMA 25202,CMST 25204,LLSO 27801,TAPS 28452
HIPS 25307. History and Historiography of Science. 100 Units.

Science poses particular problems of historical understanding because it claims to reveal truths independent of human culture and historical change. Yet scholars have argued for decades that both the enterprise of science and, indeed, scientific knowledge itself can be accounted for historically. Since World War II a thriving discipline has arisen to pursue this objective. It has transformed our understanding of such central topics as the practice of experiment, the social meaning of nature, and the constitution of scientific authority. History and Historiography of Science offers an opportunity to see how historians of science have achieved this. We will read both canonical works and new research, in order to understand how they practice their craft of bringing history to bear on what seems the most unhistorical of subjects.

Instructor(s): A. Johns Terms Offered: Winter
Equivalent Course(s): CHSS 35307,HIST 25307,HIST 35307

HIPS 25408. The History of Suggestion. 100 Units.

This course examines the history of studies of the nature of what has commonly become known as suggestion—subtle influences over personal and group behavior that are thought to affect us outside our conscious awareness or control. The idea of an unconscious influence of this kind has deep roots, but it was only in the nineteenth and twentieth centuries that it became a major focus of research, controversy and reflection. The course will examine the development and significance of characterizations of suggestion and related concepts of subtle influence in medicine, advertising, and various fields in the sciences. Course materials will include primary sources in those areas, literary materials, and film.

Instructor(s): A. Winter Terms Offered: Winter
Equivalent Course(s): CHSS 35408,HIST 25408,HIST 35408

HIPS 25415. History of Information. 100 Units.

"Information" in all its forms is perhaps the defining phenomenon of our age. But although we tend to think of it as something distinctively modern, in fact it came into being through a long history of thought, practice, and technology. This course will therefore suggest how to think historically about information. Using examples that range from the Middle Ages to the twenty-first century, we shall explore how different societies have conceptualized the subject, and how they have sought to control it. We shall address how information has been collected, classified, circulated, contested, and destroyed. The aim is to provide a different kind of understanding of information practices—one that can be put to use in other historical inquiries, as well as casting an unfamiliar light on our own everyday lives.

Instructor(s): A. Johns Terms Offered: Winter
Equivalent Course(s): CHSS 35415,HIST 35415,LLSO 23501,HIST 25415
HIPS 25600. History of Statistics. 100 Units.
This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data.
Instructor(s): S. Stigler Terms Offered: Spring
Prerequisite(s): Prior statistics course
Equivalent Course(s): STAT 26700, CHSS 32900, STAT 36700

HIPS 25700. Science in Victorian Britain. 100 Units.
No description available.
Instructor(s): A. Winter Terms Offered: Winter

HIPS 25901. Evolution of Mind and Morality: Nineteenth to Twenty-First Centuries. 100 Units.
No description available.
Instructor(s): R. Richards Terms Offered: Autumn
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): CHSS 35900, HIST 25501, HIST 35501, PHIL 24300, PHIL 34300, PSYC 28200

HIPS 25902. A History of Cell and Molecular Biology. 100 Units.
This course will trace the parallel histories of cell and molecular biology, primarily in the 20th century, by exploring continuities and discontinuities between these fields and their precursors. Through discussion, attempts will be made to develop definitions of cell and molecular biology that are based upon their practices and explanatory strategies, and to determine to what extent these practices and strategies overlap. Finally, the relevance of these definitions to current developments in biology will be explored. The course is not designed to be comprehensive, but will provide an overall historical and conceptual framework.
Instructor(s): K. Matlin Terms Offered: Spring
Prerequisite(s): This course does not meet the requirements for the Biological Sciences Major.
Equivalent Course(s): BIOS 29270

HIPS 26000. History of Philosophy II: Medieval and Early Modern Philosophy. 100 Units.
A survey of the thought of some of the most important figures of this period, including Anselm, Aquinas, Descartes, Hobbes, Spinoza, Leibniz, Locke, Berkeley, and Hume.
Instructor(s): B. Callard Terms Offered: Winter
Prerequisite(s): Completion of the general education requirement in humanities required; PHIL 25000 recommended
Equivalent Course(s): PHIL 26000
HIPS 26203. Nature/Culture. 100 Units.
Exploring the critical intersection between science studies and political ecology, this course interrogates the contemporary politics of “nature.” Focusing on recent ethnographies that complicated our understandings of the environment, the seminar examines how conceptual boundaries (e.g., nature, science, culture, global/local) are established or transgressed within specific ecological orders.
Instructor(s): J. Masco Terms Offered: Winter (Tentative)
Equivalent Course(s): ANTH 23805, ANTH 43805, CHSS 32805

HIPS 26502. Social Studies of Science. 100 Units.
No description available.
Instructor(s): J. Evans Terms Offered: Spring
Equivalent Course(s): SOCI 20148, SOCI 30148, CHSS 30310

HIPS 27302. Culture, Mental Health, and Psychiatry. 100 Units.
While mental illness has recently been framed in largely neurobiological terms as “brain disease,” there has also been an increasing awareness of the contingency of psychiatric diagnoses. In this course, we will draw upon readings from medical and psychological anthropology, cultural psychiatry, and science studies to examine this paradox and to examine mental health and illness as a set of subjective experiences, social processes, and objects of knowledge and intervention. On a conceptual level, the course invites students to think through the complex relationships between categories of knowledge and clinical technologies (in this case, mainly psychiatric ones) and the subjectivities of persons living with mental illness. Put in slightly different terms, we will look at the multiple links between psychiatrists’ professional accounts of mental illness and patients’ experiences of it. Questions explored include: Does mental illness vary across social and cultural settings? How are experiences of people suffering from mental illness shaped by psychiatry’s knowledge of their afflictions?
Instructor(s): E. Raikhel Terms Offered: Winter
Prerequisite(s): Undergraduates must have previously completed a SOSC sequence.
Note(s): CHDV Distribution, C*, D*; 3*, 4*
Equivalent Course(s): ANTH 24315, CHDV 23301

HIPS 28101. Psychoanalysis and Philosophy. 100 Units.
No description available.
Instructor(s): J. Lear, C. Vogler Terms Offered: Winter
Prerequisite(s): Open to students who are majoring in philosophy with advanced standing
Equivalent Course(s): PHIL 38209, SCTH 37501

HIPS 28202. Topics in Philosophy of Science: Mechanism and Causation. 100 Units.
No description available.
Instructor(s): B. Fogel Terms Offered: Spring
Note(s): Background in science not required.
Equivalent Course(s): PHIL 21109, PHIL 31109
HIPS 28601. Environment and the Body. 100 Units.
No description available.
Instructor(s): A. Gugliotta Terms Offered: Winter

HIPS 28801. Environmental Law. 100 Units.
No description available.
Terms Offered: Autumn
Prerequisite(s): Third- or fourth-year standing, or consent of instructor

HIPS 29613. Tutorial: Francis Bacon’s Science and the Uses of Nature. 100 Units.
This course will examine the historical impact that Francis Bacon’s reform of natural philosophy had on Western attitudes toward the environment during the 17th and 18th centuries. Bacon and his adherents—who championed induction, empiricism, and experimental methodology—exerted a profound influence on Western notions of power over nature and of the possibilities of alteration, manipulation, and exploitation of the natural world. We will focus particularly on the rise of artisanal and craft knowledge; the emergence of civil institutions for cooperative knowledge-making; utopian and cornucopian conceptions of the natural economy; matter theory, alchemy, and attempts to actively manipulate nature; the competing and complementary notions of dominion over nature versus environmental stewardship; the practical uses of natural materials during European imperial expansion; and the origins of industrialization and technological development. Our ultimate goal will be to gain greater understanding of the lasting historical tension between envisioning nature as a practically infinite, utilitarian resource for humanity on the one hand and as a fragile, finite territory in need of human conservancy on the other.
Instructor(s): J. Niermeier-Dohoney Terms Offered: Autumn

HIPS 29614. Tutorial: Heuristics, Biases, and Ideology. 100 Units.
We make most of our judgments under conditions of uncertainty: We typically lack the information necessary to fully understand the present, and we certainly lack the ability to know how most things will turn out in the future. Nevertheless, human life involves constantly making judgments about the world, and we generally feel confident in doing so. In this course, we explore how we make the judgments that we do, as well as the common biases that undermine our ability to judge well. We will begin by examining a central tenet of contemporary work on human judgment, the idea that our judgments are typically made using heuristics—automatic and simplifying mental shortcuts that focus our attention on certain features of a situation while largely ignoring others. We will see how heuristics can prove to be valuable time saving devices, as well as the ways in which they lead to significant errors in our judgments. We will then examine the extent to which unconscious needs, desires, and aversions bias our judgments of our society and ourselves.
Instructor(s): J. Edwards Terms Offered: Winter
HIPS 29615. Cold War Technologies of the Self. 100 Units.  
During the thirty years after World War II, assumptions about human nature, rationality and subjective experiences underwent profound transformation. This course will seek to understand how these changes intersected with emergent technologies and new media. Our readings will bring us to topics such as game theory, cybernetics, early computing, military architecture, urban/suburban planning, multimedia art and the rise of television. How did these various tools and models relate to research within the human and social sciences? How were these cold war projects used to study, control or liberate bodies and minds? And to what extent is this past still alive and well in our present?  
Terms Offered: Spring  
Equivalent Course(s): HIST 25410

HIPS 29618. A Global History of Cold War Science and Technology. 100 Units.  
What was the effect of the Cold War upon the different sciences? What roles did scientists themselves have in shaping Cold War politics? What new issues emerge when we look at the Cold War in its various global contexts? How did the Cold War transform the physical world and our ideas about it? And how did it help modify the very idea of science? Or how can history of science and technology transform common views of the Cold War? What legacies from that period configure current societies and their mutual relationships at local and global scales? These are some of the issues that this seminar will address. One of the main goals will be to provide students with tools to write their own short research papers on a topic and area of their own interest relating to this lasting period in recent history.  
Terms Offered: Spring  
Equivalent Course(s): CHSS 39618,HIST 25411

HIPS 29619. History and Theory of Pain and Passions. 100 Units.  
The aim of this course is to introduce different traditions within the history of emotions and passions. We will begin by taking pain as key example of a subjective experience, and move from there to some of the most relevant historiographical traditions and theoretical problems involved in the understanding and comprehension of emotions and other subjective experiences: psico-history, history of the senses, affective turn, history of emotions, moral economy of emotions, history of experiences, etc. The course will explore the methodological conditions and theoretical constrains involved in writing on the history of pain and passions. In addition, we will also explore how research on the emotional life of the past may employ some other means of public engagement, especially Museums and Gallery exhibitions.  
Instructor(s): Javier Moscoso  
Terms Offered: Spring. Spring 2016 only.  
Equivalent Course(s): CHSS 39619

HIPS 29700. Readings and Research in History, Philosophy, and Social Studies of Science and Medicine. 100 Units.  
No description available.  
Terms Offered: Autumn, Winter, Spring  
Note(s): Students are required to submit the College Reading and Research Course Form.
HIPS 29800. Junior Seminar: My Favorite Readings in the History and Philosophy of Science. 100 Units.
This course introduces some of the most important and influential accounts of science to have been produced in modern times. It provides an opportunity to discover how philosophers, historians, anthropologists, and sociologists have grappled with the scientific enterprise, and to assess critically how successful their efforts have been. Authors likely include Karl Popper, Thomas Kuhn, Robert Merton, Steven Shapin, and Bruno Latour.
Instructor(s): R. Richards, A. Winter Terms Offered: Winter
Equivalent Course(s): HIST 25503

HIPS 29810. Bachelor’s Thesis Workshop. 100 Units.
Terms Offered: Autumn, Winter, Spring

HIPS 29900. Bachelor’s Thesis. 100 Units.
This is a research course for independent study related to thesis preparation.
Terms Offered: Autumn, Winter, Spring
Note(s): Students are required to submit the College Reading and Research Course Form.