**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 (http://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 three courses on the origins and development of science in the West: one course in each of the following three chronological periods: ancient, early modern, and modern.

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 registrar.uchicago.edu/classes.

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

Three courses: one from each of the following chronological periods:  
- Ancient: HIPS 18300  
- Early Modern: HIPS 18400-18403  
- Modern: HIPS 18500-18503  
An approved sequence that fulfills the biological sciences general education requirement  
One of the following sequences:  
- CHEM 10100 & CHEM 10200 Introductory General Chemistry I and Introductory General Chemistry II (or equivalent)  
- CHEM 11100-11200 Comprehensive General Chemistry I-II (or equivalent)  
- PHYS 12100-12200 General Physics I-II (or higher)  
- MATH 13100-13200 Elementary Functions and Calculus I-II (or higher)  
Total Units  

MAJOR

Three courses in science, social sciences, or mathematics beyond the introductory level  
Five courses in an area of concentration  
Two tutorials  
HIPS 29700 Readings and Research in History, Philosophy, and Social Studies of Science and Medicine  
HIPS 29800 Junior Seminar: My Favorite Readings in the History and Philosophy of Science  
HIPS 29900 Bachelor’s Thesis  
HIPS 29810 Bachelor’s Thesis Workshop  
Total Units  

* 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 registrar.uchicago.edu/classes.

History and Philosophy of Biological Science

- HIPS 23600 History and Theory of Human Evolution  
- BIOS 29321 Problem of Evil: Disease?  
- HIPS 23900 Biological and Cultural Evolution  
- HIPS 25801 Evolutionary Theory and Its Role in the Human Sciences  
- HIPS 27860 History of Evolutionary Behavioral Sciences  
Total Units

Philosophy of Science

- HIPS 22000 Introduction to Philosophy of Science  
- HIPS 25104 History and Philosophy of Biology  
Total Units
History, Philosophy, and Social Studies of Science and Medicine (HIPS)

HIPS 22708     Planetary Britain, 1600-1900  100
Total Units     300

History of Medicine and Medical Ethics
HIPS 21609     Topics in Medical Ethics  100
HIPS 24103     Bioethics  100
HIPS 25900     Darwinian Medicine  100
HIPS 27300     Medicine and Culture  100
Total Units     400

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, which must be taken for Pass/Fail grading. Nonmajors may take courses for Pass/Fail 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, which 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 focusing on the origins and development of science in the West (one course in each of two of the following chronological periods: ancient, early modern, and modern) 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 the Consent to Complete a Minor Program (https://humanities-web.s3.us-east-2.amazonaws.com/college-prod/s3fs-public/documents/Consent_Minor_Program.pdf) form obtained from the College adviser or online.

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:  100
HIPS 29641     Tutorial: Medical Ethics in the Hospital and Clinic
Concentration in History and Philosophy of Biology:  500
History, Philosophy, and Social Studies of Science and Medicine (HIPS)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIPS 22700</td>
<td>Philosophical Problems in the Biological Sciences</td>
</tr>
<tr>
<td>HIPS 23600</td>
<td>History and Theory of Human Evolution</td>
</tr>
<tr>
<td>HIPS 23900</td>
<td>Biological and Cultural Evolution</td>
</tr>
<tr>
<td>HIPS 25801</td>
<td>Evolutionary Theory and Its Role in the Human Sciences</td>
</tr>
<tr>
<td>BIOS 29321</td>
<td>Problem of Evil: Disease?</td>
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Total Units: 600

Group 2

<table>
<thead>
<tr>
<th>Tutorial</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIPS 29642</td>
<td>Tutorial: The Science and Philosophy of Artificial Intelligence</td>
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</tbody>
</table>

Concentration in History of Medicine and Medical Ethics:

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>HIPS 21400</td>
<td>Intro To Medical Ethics</td>
</tr>
<tr>
<td>HIPS 24103</td>
<td>Bioethics</td>
</tr>
<tr>
<td>HIPS 25900</td>
<td>Darwinian Medicine</td>
</tr>
<tr>
<td>HIPS 27300</td>
<td>Medicine and Culture</td>
</tr>
</tbody>
</table>

Total Units: 600

History, Philosophy, and Social Studies of Science and Medicine Courses

HIPS 18300, HIPS 18400–18403, and HIPS 18500–18503 Science, Culture, and Society in Western Civilization

These courses focus on the origins and development of science in the West. They aim to trace the evolution of the biological, psychological, natural, and mathematical sciences as they emerge from the culture and social matrix of their periods and, in turn, affect culture and social. In order to satisfy the general education requirement in civilization studies, students must take a course in two or three of the following chronological periods: ancient (numbered HIPS 18300), early modern (HIPS 18400–18403), and modern (HIPS 18500–18503). Taking these courses in sequence is recommended but not required. Only one course per category may count toward the requirement unless special approval is granted.

HIPS 18300. Science, Culture, and Society in Western Civilization I: Greek & Roman Science. 100 Units.
This undergraduate core course represents the first quarter of the Science, Culture, and Society in Western Civilization sequence. Taking these courses in sequence is recommended but not required. This quarter will focus on aspects of ancient Greek and Roman intellectual history, their perceived continuities or discontinuities with modern definitions and practices of science, and how they were shaped by the cultures, politics, and aesthetics of their day. Topics surveyed include history-writing and ancient science, the cosmos, medicine and biology, meteorology, ethnography and physiognomics, arithmetic and geometry, mechanics, taxonomy, optics, astronomy, and mechanical computing.
Instructor(s): J. Wee Terms Offered: Autumn. Offered Autumn 2021
Equivalent Course(s): HIST 17310

HIPS 18301. Science, Culture, and Society in Western Civilization I: Ancient Science and Medicine. 100 Units.
This undergraduate course represents the first quarter of the Science, Culture, and Society in Western Civilization general education sequence. Taking these courses in sequence is recommended but not required. This quarter will focus on science and medicine in societies across the ancient world. Students will gain an introduction to methods of healing and knowing practiced in Africa, Asia, Europe, and North and South America before 1500. Students will also acquire an understanding of the many questions that historical research raises for our own understanding of contemporary medicine and science, and some of the methods that historians use to bring the past to light. Topics include ancient surgery and pharmacology; the manifold meanings of “disease;” the function and recognition of “the body,” of “mind,” and of perception; how to acquire “good” and “true” knowledge; continuity and discontinuity of beliefs and practices over time and place; and exchange of ideas and materials across cultures, among other subjects.
Instructor(s): Michael Rossi Terms Offered: Winter. Offered in Winter 2023
Equivalent Course(s): HIST 17311

HIPS 18400. Science, Culture, and Society in Western Civilization II: Renaissance to Enlightenment. 100 Units.
This lecture-discussion course examines the development science and scientific philosophy from the mid-fifteenth to the mid-nineteenth centuries. The considerations begin with the recovery of an ancient knowledge in the works of Leonardo, Vesalius, Harvey, and Copernicus. Thereafter the course will focus on Enlightenment science, as represented by Galileo, Descartes, Newton, and Hume. The course will culminate with the work of Darwin, who utilized traditional concepts to inaugurate modern science. For each class, the instructor will provide a short introductory lecture on the texts, and then open discussion to pursue with students the unexpected accomplishments of the authors under scrutiny.
Instructor(s): R. Richards Terms Offered: Winter. Course is offered in Winter 2022
Equivalent Course(s): KNOW 18400, HIST 17410
HIPS 18401. Science, Culture, and Society in Western Civilization II: History of Medicine 1500 to 1900. 100 Units.

This course examines the theory and practice of medicine between 1500 and 1900. Topics include traditional early modern medicine; novel understandings of anatomy, physiology, and disease from the Renaissance on; and new forms of medical practice, training, and knowledge-making that developed in the eighteenth and nineteenth centuries.

Instructor(s): M. Rossi Terms Offered: Autumn. Course is not offered in 2021-2022 Academic Year Equivalent Course(s): HIST 17411

HIPS 18402. Science, Culture, and Society in Western Civilization II: The Scientific Revolution. 100 Units.

This course focuses on one of the most radical transformations in the history of Western thought: the so-called “Scientific Revolution.” In addition to analyzing the origin and development of Copernicanism, Galilean mechanics, and Paracelsian alchemy—among other revolutionary ideas—we will examine several institutional and methodological innovations that profoundly altered how early modern Europeans investigated the natural world, including the advent of the experimental philosophy and the creation of scientific academies.

Instructor(s): Zachary Barr Terms Offered: Autumn. Offered Autumn 2021

HIPS 18403. Science, Culture, and Society II: Science in Global Perspective, 1000-1800. 100 Units.

This course considers the global history of science from the eleventh to the eighteenth centuries, looking at the relationship between science, power, and the state in shaping “global science” in the early modern world. Conventional narratives of the history of modern science have located its origins in Western Europe in the sixteenth and seventeenth centuries. However, while European knowledge traditions have played an important role in the construction of what we now call science, knowledge about the natural world has been coproduced in many different geographic and cultural contexts around the globe. Beginning with science in Islamic societies in the Middle East (c. 800-1200), this class will explore the histories of astronomy, botany, medicine, navigation, and mechanics in societies in the Middle East and North Africa, East Asia, South America, and Oceania.

Instructor(s): Emily Kern Terms Offered: Winter. Offered in Winter 2023 Equivalent Course(s): HIST 17413

HIPS 18501. Science, Culture, and Society in Western Civilization III: History of Medicine 1900-Present. 100 Units.

This course is an examination of various themes in the history of medicine in Western Europe and America since 1900. 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): M. Rossi Terms Offered: Winter. Course is not offered in 2021-2022 Academic Year Equivalent Course(s): HIST 17511

HIPS 18502. Science, Culture, and Society in Western Civilization III: The Environment. 100 Units.

This course charts the development of modern science and technology with special reference to the environment. Major themes include natural history and empire, political economy in the Enlightenment, the discovery of deep time and evolutionary theory, the dawn of the fossil fuel economy, Malthusian anxieties about overpopulation, the birth of ecology, the Cold War development of climate science, the postwar debates about the limits to growth, and the emergence of modern environmentalism. We will end with the new science of the Anthropocene.

Instructor(s): F. Albritton Jonsson Terms Offered: Spring. Course is not offered in 2021-2022 Academic Year Equivalent Course(s): HIST 17512

HIPS 18503. Science, Culture, and Society in Western Civilization III: History of Social Science. 100 Units.

Social Science’ now is generally used to refer to the various disciplines devoted to the study of humanity in its social manifestations: sociology, social and cultural anthropology, economics, political science, geography, and history. But these disciplines employ radically different methodologies, rooted in distinct histories. While positive social science and the application of statistics to society began in the context of French Revolutionary nation-building, ethnographic methods emerged in the very different context of British imperial encounters with ‘exotic’ cultures. In the midst of a growing interest in ‘society’ and ‘culture,’ distinct methodological schools with competing social and cultural ontologies and methodologies emerged across Europe. This course studies these traditions, and their development in the social and cultural contexts of revolution, empire, racial justice, and disciplinary institutionalization.

Instructor(s): P. Mostajir Terms Offered: Autumn Winter. Offered in Autumn 2021 and Winter 2022 Equivalent Course(s): HIST 17513

HIPS 18505. Science, Culture, and Society in Western Civilization III: Histories of the Bomb. 100 Units.

In the long history of the planet, the years since 1945 have a remarkable and unique geological signature: one left by the creation and testing of atomic weapons, medicine, and energy. This class explores the intellectual, social, economic, and political histories of nuclear research, including topics such as transnational scientific migrations; the Manhattan Project; weapons testing and development; the rise of “Big Science”; postcolonial histories of nuclear development; domestic and international anti-nuclear activism; and ecological and environmental impacts of fallout, waste, and nuclear accidents. Drawing on both primary and secondary sources, we will consider how the story we tell about the history of the nuclear age and the rise of science came to be, and how that story has transformed at different points in the twentieth century.
Instructor(s): E. Kern Terms Offered: Spring. Offered in Spring 2022
Equivalent Course(s): HIST 17515

**HIPS 15000. Common-Year Seminar: Science and the State. 100 Units.**

The end of knowledge is power," wrote the English philosopher Thomas Hobbes in 1665. This introductory seminar looks at the intertwining historical relationships between states and the making of scientific knowledge and global political power from the eighteenth century to the present day. In this seminar, we will look at how past societies have wrestled with questions like the place of scientific expertise in different systems of government; the dynamics of state vs. private support for scientific research; and the coproduction of state power and scientific knowledge.

Instructor(s): E. Kern Terms Offered: Autumn
Prerequisite(s): Open to 1st- and 2nd-yr students who are interested in history.
Note(s): Common-Year Seminars are small courses that address big themes. Classes introduce newer, readable, and accessible literature and teach writing skills for history classes at the college level. Assignments: two short papers and one final paper.
Equivalent Course(s): HIST 14904, ENST 25111, ANTH 23809

**HIPS 15100. Visualization and Biology: Science, Culture, and Representation. 100 Units.**

How do scientific images get made? This deceptively simple question lies at the heart of this course. Over three weeks at the MBL, we will examine the techniques, technologies, philosophies and histories of scientific image making, with a particular focus on marine biology. Rather than simply reading theories of visualization and representation, students will immerse themselves in the making of images themselves. Students will perform hands-on work with historical and contemporary theories and techniques of microscopy, taxonomy, anatomy, and specimen collecting. They will also examine the theoretical, philosophical, and ethical underpinnings of those practices. Through a combination of ethnographic (participant observation) and historical (archival) work, students will develop rich accounts of scientific visualization - from matters of objectivity and instrumentation, to problems of vision and the limits of (human) senses, to questions of aesthetics, abstraction, and representation. During the course, students will have the opportunity to work with Marine Biological Laboratory faculty, have access to laboratory and archives, and will develop new data and novel accounts of the social, cultural, and technical creation of scientific images.

Instructor(s): Michael Paul Rossi Terms Offered: Autumn
Prerequisite(s): Consent Only.
Note(s): Prerequisite: Consent Only. Course meets for three weeks, 9/9 thru 9/27 (5-6 days/week, 8 hours per day), at Marine Biological Laboratories, in Woods Hole Massachusetts. Course will be part of Autumn quarter course load. For more information see http://college.uchicago.edu/academics/mbl-september-courses
Equivalent Course(s): HIST 14904, ENST 25111, ANTH 23809

**HIPS 20003. Reading Race. 100 Units.**

Before and since Anthropology became a discrete scientific field of study, questions about the biological reality, potential utility and misuse of the concept of race in Homo sapiens have been debated. We will read and discuss a sample of writings by 18th, 19th, and 20th century and contemporary authors who attempted to define human races and those who have promoted or debunked the utility of the concept of race with special attention to its role in retarding social progress, and the extermination and exploitation of some populations and individuals.

Instructor(s): Russell Tuttle Terms Offered: Autumn. Autumn 2022
Equivalent Course(s): CRES 12300, ANTH 38305, ANTH 20003

**HIPS 20205. Race in African History. 100 Units.**

This course examines how the category of race has been identified and discussed in African history from the nineteenth century to the contemporary era. The course combines cultural and social history with recent research from the history of science, gender and sexuality studies, and the history of slavery in Islamic Africa to illuminate the debates, actors, and encounters that animate this dynamic field. Students will analyze case studies from across the continent-from Ghana to Sudan to South Africa-while also keeping an eye to transnational debates about difference, diaspora, imperialism, and nationalisms. With readings ranging from classics in Pan-African thought to comparative studies of white settler colonialism, this course will highlight the ways in which race has shaped and continues to shape African states and societies. Students will also consider film, literature, music, fashion, and studies of the built environment.

Terms Offered: Winter
Note(s): Students who have not take African Civilizations I, II, and III are asked to read African History: A Very Short Introduction (Oxford, 2007) in preparation for this course.
Equivalent Course(s): GNSE 22225, HIST 20205, CRES 20205

**HIPS 20301. The Science, History, Policy, and Future of Water. 100 Units.**

Water is shockingly bizarre in its properties and of unsurpassed importance throughout human history, yet so mundane as to often be invisible in our daily lives. In this course, we will traverse diverse perspectives on water. The journey begins with an exploration of the mysteries of water's properties on the molecular level, zooming out through its central role at biological and geological scales. Next, we travel through the history of human civilization, highlighting the fundamental part water has played throughout, including the complexities of water policy, privatization, and pricing in today's world. Attention then turns to technology and innovation,
emphasizing the daunting challenges dictated by increasing water stress and a changing climate as well as the enticing opportunities to achieve a secure global water future.

Instructor(s): Seth Darling Terms Offered: Winter
Prerequisite(s): None
Equivalent Course(s): HIST 25426, ENST 20300, MENG 20300, ANTH 22131, GLST 26807

**HIPS 20399. Trauma, Vulnerability, and the Martial Body. 100 Units.**

This course examines the embodied dimensions of war. Drawing from readings in anthropology, sociology, geography, and history, we will explore how military personnel experience contemporary war through a constellation of techniques, technologies, and relationships. This course is comprised of three sections. In the first section, we will discuss foundational texts in social theory that explore the various mechanisms through which institutions produce soldiers from "docile" bodies. The second section considers whether and how new protective technologies used in modern warfare corporeally mediate how individuals experience war. In the final section, we will examine recent efforts to remove bodies from combat zones through the use of unmanned weapons systems such as drones and other technologies. Throughout the course, students will acquire the necessary conceptual and analytical tools to understand, discuss, and critically examine the impacts of modern warfare as well as have the opportunity to conduct archival research on a topic of their choice.

Instructor(s): A. Drake Terms Offered: Winter
Note(s): Distribution - undergrad: 3, 4
Equivalent Course(s): CHDV 20399, ANTH 20399, HLTH 20399

**HIPS 20401. Philosophy of Mind. 100 Units.**

This is a survey of some of the central questions in the philosophy of mind. These questions include: What is consciousness? How can mental states represent things in the world? How do our minds relate to our bodies? Do we have free will? Can we blame someone for the beliefs or desires she has? What are the emotions? To help us with these questions, we will focus on 20th-century analytic work (by Putnam, Nagel, Searle, Jackson, Dennett, Chalmers, Block, Dretske, and others), but we will also read important historical texts on the nature of the mind by Aristotle, Descartes, and Hume.

Instructor(s): B. Callard Terms Offered: Autumn
Equivalent Course(s): PHIL 23501

**HIPS 20700. Introduction to 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): G. Schultheis Terms Offered: Autumn
Equivalent Course(s): PHIL 20100, PHIL 30000, LING 20102, CHSS 33500

**HIPS 20905. Advanced Logic. 100 Units.**

In this course, we explore the question of what role modern type theory can play in providing a foundation for mathematics and logic. Topics include logicism, higher order logic, Martin-Lof type theory, and the calculus of constructions. (B) (II)

Instructor(s): K. Davey Terms Offered: Winter
Prerequisite(s): Students will be expected to have some familiarity with the lambda calculus and the theory of types – interested students without this background should contact the instructor in advance to discuss possible material to read to help prepare for the course.

Equivalent Course(s): CHSS 39405, PHIL 29405, PHIL 39405

**HIPS 20962. Nature's Authority. 100 Units.**

From ancient times to the present, nature's authority has been invoked by revolutionaries and reactionaries alike to justify social, political, and economic arrangements made by humans. Despite much trenchant philosophical criticism, nature seems to an irresistible resource in very human debates about power, work, sex, money, and much else. This seminar asks why this tradition has been so persistent and pervasive and where nature's authority comes from. Readings will emphasize primary sources, from Aristotle to contemporary environmentalists. This course will meet two times per week for 3 hours, during the 1st five weeks of the quarter, March 28 - April 27.

Terms Offered: Spring. Course will be taught Spring 2022
Note(s): Instructor consent required. Primarily aimed at graduate students, but also open to well-qualified undergraduates.
Equivalent Course(s): CHSS 30962, HIST 45005, SCTH 30962

**HIPS 21000. Introduction To Ethics. 100 Units.**

An exploration of some of the central questions in metaethics, moral theory, and applied ethics. These questions include the following: are there objective moral truths, as there are (as it seems) objective scientific truths? If so, how can we come to know these truths? Should we make the world as good as we can, or are there moral constraints on what we can do that are not a function of the consequences of our actions? Is the best life a maximally moral life? What distribution of goods in a society satisfies the demands of justice? Can beliefs and desires be immoral, or only actions? What is "moral luck"? What is courage? (A)
In 2014, the Vatican Radio made a splash when it reported that the pontiff, Pope Francis, condoned the
baptism of extraterrestrials—if they so desired it. "Who are we to close doors?" he asked rhetorically. It was

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.

This course surveys the history of medicine from the medieval period to the present. How did medicine emerge
as a defined body of knowledge? To what extent do diseases and disorders have an independent existence, and
to what extent are they cultural constructs? How have social mores-particularly those related to religion, class,
nationality, race, and gender-influenced the ways in which health was and is understood and maintained, and
illness treated? What kind of a social phenomenon is loss? How do people go on in the face of it? How can we study such a highly variable phenomenon, and what insight might we find in the process? This course investigates loss and its social afterlives, from the
ordinary to the earth-shattering. We examine how loss arises and discuss why, even when expected or
minor key, through everyday acts of forgetting, letting go, or withdrawal. What kind of a social phenomenon
is loss? How do people go on in the face of it? How can we study such a highly variable phenomenon, and what insight might we find in the process? This course investigates loss and its social afterlives, from
the ordinary to the earth-shattering. We examine how loss arises and discuss why, even when expected or
familiar, its disorienting effects invite creative acts of wayfinding. We first engage the material, historical,
and psychic dimensions of loss and then shift scope to examine how loss affects entire communities, becomes
institutionalized, and puts entire worlds into question. By engaging ethnography, history, social theory, as well
as literature and popular media, we will develop a constellation of questions and approaches to loss and answer
why it happens, how we live through it, and what we find in its wake.

This course surveys the history of medicine from the medieval period to the present. How did medicine emerge
as a defined body of knowledge? To what extent do diseases and disorders have an independent existence, and
to what extent are they cultural constructs? How have social mores-particularly those related to religion, class,
nationality, race, and gender-influenced the ways in which health was and is understood and maintained, and
illness treated? What does it mean to practice medicine ethically, and how has that changed over time? Topics
include the emergence and evolution of the medical profession, the history of medical research and method, the
interpretation and treatment of the unhealthy and healthy alike, eugenics, euthanasia, the quest for immortality,
and the changing relationship between technology and disease.

This course examines heritage as a conceptual formation, a set
in power and condense contested histories. Drawing together ethnographies of heritage, theories of history and
art, and accounts of dispossession and destruction, we will examine heritage as a conceptual formation, a set
of social, political, and economic practices, and as a locus of both enchantment and endangerment. In doing so,
students will gain a better sense of why the category of heritage seems to matter so much in the 21st century,
paradoxically weaponized by both nationalist narratives and decolonial movements, and what futures heritage
builds.
both a metaphor for spiritual inclusion and an accurate representation of the modern Vatican’s position on the possibilities of modern astrobiology and the search for extrasolar planets, fields whose rapid growth over the past two decades make serious consideration of extraterrestrial life seem like a uniquely modern phenomena. Its history, however, is in fact many centuries old. In this course we will examine the development of beliefs concerning life in the universe from the sixteenth century to the present. How did historical actors understand the nature, abilities, and location of extraterrestrial life, and its relationship to man and god? We will analyze connections between these beliefs and contemporary political, social, scientific, and religious developments. These include the role of the plurality of worlds in the debates over heliocentrism, its impact and application in the context of deism and social and political free thought, its literary and artistic depictions and use as a tool of satire and social commentary; its influence on natural philosophy, its decline and the subsequent rise of alien conspiracists and their critics, and how and why conceptions of the extraplanetary other took a dark and sinister turn toward the early-to-mid twentieth century.

Equivalent Course(s): ECEV 31409, KNOW 21409, HIST 24917

HIPS 21410. Politics of Technoscience in Africa. 100 Units.

Euro-American discourse has often portrayed Africa as either a place without science and technology or as the home of deep and ancient wisdom. European imperialists used the alleged absence of science and technology as a justification for colonialism while pharmaceutical companies sought out African knowledge about healing plants. In addition to their practical applications, science and technology carry significant symbolic weight in discussions about Africa. In this class, we examine the politics of scientific and technical knowledge in Africa with a focus on colonialism and its aftermath. How have different people produced and used knowledge about the environment, medicine, and technology? What kinds of knowledge count as indigenous and who gets credit for innovation? How have independent African governments dealt with the imperial legacies of science? From the interpretation of archaeological ruins to the design of new medical technologies, this class will examine science and technology as political practice in Africa.

Equivalent Course(s): ANTH 22165, CRES 21410, KNOW 21410

HIPS 21411. Sex, Race, and Empire. 100 Units.

This course surveys how science, race, and gender interacted in the early modern Atlantic world from 1500-1800. We will critically examine how new modes of scientific inquiry brought Africans, Americans, and Europeans into contact and conflict. Along the way, we will ask how, why, and with consequences imperial science created new knowledge claims about human inequality, especially racial and sexual difference. We will draw primarily on British, Iberian, and French imperial agendas in order to track the experiences of men and women from all corners of the Atlantic world, including indigenous peoples, enslaved black Africans, free people of color, and white Europeans. Through a variety of primary and secondary sources, we will uncover European aspirations to curate, control, and exploit the natural world and the agency of subjugated peoples in responding to and resisting these designs. Topics covered include natural history collecting and classification; the invention of racial theory; slavery and maroons; women, gender, and reproduction; consumption; and violence, resistance, and revolution.

Equivalent Course(s): HIST 25315, CRES 21411, GNSE 21411, KNOW 21411

HIPS 21413. Sex and Enlightenment Science. 100 Units.

What do a lifelike wax woman, a birthing dummy, and a hermaphrodite have in common? This interdisciplinary course seeks answers to this question by exploring how eighteenth-century scientific and medical ideas, technologies, and practices interacted with and influenced contemporary notions of sex, sexuality, and gender. In our course, the terms “sex,” “Enlightenment,” and “science” will be problematized in their historic contexts using a variety of primary and secondary sources. Through these texts, as well as images and objects, we will see how emerging scientific theories about sex, sexuality, and gender contributed to new understandings of the human, especially female, body. We will also see how the liberating potential of Enlightenment thought gave way to sexual and racial theories that insisted on fundamental human difference. Topics to be covered include theories of generation, childbirth, homosexuality, monstrosities, race and procreation, and hermaphrodites and questions about the “sex” of the enlightened scientist and the gendering of scientific practices.

Equivalent Course(s): KNOW 21413, GNSE 21413, HIST 22218, CHSS 31413

HIPS 21414. What is Technology? 100 Units.

In the nineteenth century, the word “technology” referred to the science of the useful and industrial arts. While the term is today synonymous with machinery and other material tools, this contemporary usage dates only to the 1930s. A word once used to describe a specialist mode of writing about applied knowledge has come to refer to curate, control, and exploit the natural world and the agency of subjugated peoples in responding to and resisting these designs. Topics covered include natural history collecting and classification; the invention of racial theory; slavery and maroons; women, gender, and reproduction; consumption; and violence, resistance, and revolution.

Equivalent Course(s): KNOW 21413, GNSE 21413, HIST 22218, CHSS 31413

HIPS 21419. Indigenous Knowledge and the Foundations of Modern Social Theory. 100 Units.

Indigenous people are often seen as “objects” of social theory; this course considers their role as subjects of social theory-makers of modern knowledge who made foundational contributions to basic ideas about humanity. We will take up three case studies, each of which highlights an indigenous people who unleashed a cascade of fresh thinking: the Australian Aborigines who influenced the ideas of Emile Durkheim and Sigmund Freud; the Native peoples of the Northwest Coast of America who stimulated Franz Boas to reconstruct the concept of culture; and the indigenous peoples of the Trobriand Islands who shaped Bronislaw Malinowski’s ideas about gifts,
hospitality, and reciprocity. As we will see, much of what we call social theory turns out to rely on a vast archive of nonstate knowledge generated by indigenous intellectuals.

Instructor(s): Isaiah Lorado Wilner Terms Offered: Spring
Equivalent Course(s): CRES 21419, KNOW 21419

HIPS 21428. Apes and Human Evolution. 100 Units.
This course is a critical examination of the ways in which data on the behavior, morphology, and genetics of apes have been used to elucidate human evolution. We emphasize bipedalism, hunting, meat eating, tool behavior, food sharing, cognitive ability, language, self-awareness, and sociability. Visits to local zoos and museums, film screenings, and demonstrations with casts of fossils and skeletons required.

Instructor(s): Russell Tuttle Terms Offered: Spring. Spring 2023
Prerequisite(s): BIOS 10130 or BIOS 10140. NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition. Preference to 3rd and 4th year Anthropology Majors.
Equivalent Course(s): ANTH 36600, BIOS 15253, ANTH 21428, EVOL 36600

HIPS 22000. Introduction to 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) (II)
Instructor(s): T. Pashby Terms Offered: Winter
Equivalent Course(s): HIST 35109, PHIL 22000, HIST 25109, PHIL 32000, CHSS 33300

HIPS 22003. Einstein for Everyone. 100 Units.
Einstein’s revolutions in physics led to fundamental changes in how we understand the universe. Among other things, we seem to have learned from Einstein about the existence of black holes and gravitational waves, that time is not absolute but relative, that the universe is expanding, that gravity is not a force. But how is someone who doesn’t know much physics to figure out if this or that moral really is vindicated by Einstein’s work? This course covers just enough of Einstein’s work at an elementary level to help answer such questions. High school math is required but we will provide an understanding of special and general relativity at a conceptual level, without calculations or problem sets. (B)
Instructor(s): T. Pashby Terms Offered: Winter
Equivalent Course(s): FNDL 24307, PHIL 22003

HIPS 22207. The Social History of Alcohol in Early Modern Europe. 100 Units.
This course will examine the multifaceted role that beer, wine, cider, and spirits played in European society and will challenge students to consider how a seemingly familiar commodity was a key component in shaping early modern social relations. It will focus on several major themes that have guided historical inquiry and show how hard drink intersects with and entangles these histories. Major themes will include alcohol and gender relations; state legality and taxation; moral policing; environmental projects and crises; labor and technology; and colonialism. Using both primary and secondary sources will push students to look below the surface to see how drink alternately challenged or reinforced social hierarchies, much as it continues to do in the present time.

Instructor(s): C. Rydell Terms Offered: Spring
Equivalent Course(s): HLTH 22207, HIST 22207

HIPS 22310. The Commons: Environment and Economy in Early Modern Europe. 100 Units.
Drawing on case studies from Europe and the Atlantic world, this course will track changes in land use and property rights over the early modern period (ca. 1500-1800), inviting students to reflect on the relationship between natural environments (woodlands, waterways, pasture) and histories of state formation, economic growth, rebellion, and colonialism. Organizing concepts and debates will include the tragedy of the commons, moral economies, sustainability and scarcity, the “organic economy” of the old regime, primitive accumulation, and economic takeoff. Readings will encompass classic works in agrarian, environmental, and social history (i.e., Marc Bloch, E. P. Thompson, Silvia Federici, James Scott, Carolyn Merchant) as well as primary documents and contemporary texts (i.e., More, Bacon, Smith, Paine, Babeuf). We will also reflect on how these histories bear on debates about land use and natural resources in the present day.

Instructor(s): O. Cussen Terms Offered: Winter
Equivalent Course(s): ENST 22310, HIST 22310, LLSO 22310

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): Prerequisite(s): For BIOS Majors: Three quarters of a Biological Sciences Fundamentals Sequence or consent of instructor.
Note(s): CHDV Distribution - Undergrad: A E. GP.
Equivalent Course(s): BIOS 23405, CHDV 21500, HLTH 21500, GNSE 21500
HIPS 22708. Planetary Britain, 1600-1900. 100 Units.
What were the causes behind Britain's Industrial Revolution? In the vast scholarship on this problem, one particularly heated debate has focused on the imperial origins of industrialization. How much did colonial resources and markets contribute to economic growth and technological innovation in the metropole? The second part of the course will consider the global effects of British industrialization. To what extent can we trace anthropogenic climate change and other planetary crises back to the environmental transformation wrought by the British Empire? Topics include ecological imperialism, metabolic rift, the sugar revolution, the slave trade, naval construction and forestry, the East India Company, free trade and agriculture, energy use and climate change.
Equivalent Course(s): HIST 22708, ENST 22708, KNOW 22708, CHSS 32708, HIST 32708, KNOW 32808

HIPS 22800. Experiencing Madness: Empathic Methods in Cultural Psychiatry. 100 Units.
This course provides students with an introduction to the phenomenological approach in cultural psychiatry, focusing on the problem of "how to represent mental illness" as a thematic anchor. Students will examine the theoretical and methodological groundings of cultural psychiatry, examining how scholars working in the phenomenological tradition have tried to describe the lived experiences of various forms of "psychopathology" or "madness." By the end of the course, students will have learned how to describe and analyze the social dimension of a mental health experience, using a phenomenologically-grounded anthropological approach, and by adopting a technical vocabulary for understanding the lived experiences of mental illness (for instance, phenomena, life-world, being-in-the-world, intentionality, epoché, embodiment, madness, psychopathology, melancholia/ depression, schizophrenia, etc). In addition, given the ongoing problematic of "how to represent mental illness," students will also have the opportunity to think through the different ways of presenting their analysis, both in the form of weekly blog entries and during a final-week mock-workshop, where they will showcase their work in a creative medium appropriate to that analysis.
Equivalent Course(s): CHDV 32822, MAPS 32800, ANTH 35135, CHSS 32800, ANTH 24355

HIPS 22905. Topics in the History of Attention. 100 Units.
Our data," said a recent social critic, "is the oil of the twenty-first century." In these infinite reserves, perhaps no data is more "ours" than the data we generate simply by paying attention to some things over other things. This particular feature of how our minds work has become the natural resource supply for the vastly profitable attention economy. But hasn't it always been thus? In this course we will explore how something every human has always had becomes a new resource and a new problem from one historical moment to another. We will pursue our quarry with zealous particularism and zealous universalism, by tracking discourses of attention across several recurring themes: questions of autonomy and choice; problems of overabundance; forms of collective attention, trained attention, and pathological attention-including pathologies of excess, deficiency, and erroneous attention. Throughout the course we will ask what problems of attention say about the cultures and societies that produce them, and how all problems of attention might be different historical attempts to come to terms with human limitation and human potential.
Instructor(s): Huang, Lily Terms Offered: Spring
Equivalent Course(s): MAPS 32905, CHSS 32905

HIPS 23050. The Role of Science in U.S. Education Reform. 100 Units.
How should science inform the improvement of education? Can education be studied scientifically? These questions have haunted American education research since its 19th century beginnings. In this course, Lagemann's history of U.S. education research, An Elusive Science, will serve as a central orienting text, and students will read primary sources by the figures it describes: Dewey, James, Thorndike, Coleman, Tyler, and more. The course will end with a consideration of contemporary topics such as research-practice partnerships and design research. In taking on the case of American education research, students will confront and discuss the entanglements of epistemology and history, measurement and social organization, knowledge and authority.
Instructor(s): Ye, Lily Terms Offered: Winter
Note(s): Undergrad distribution: C
Equivalent Course(s): EDSO 23050, KNOW 23050, CHDV 23050

HIPS 23410. Sex in Twentieth-Century Europe. 100 Units.
This course will examine the "syncopated" history of sexuality across this tumultuous century. The period took Europeans from bourgeois norms of sexuality through the 1960s sexual revolution to same-sex marriages; genocide and the emergence of rape as a war crime; and the unprecedented regulation of sexuality and biomedical developments treating infertility. Since the history of sex and sexuality in Europe cannot be thought outside of European colonialism and the Cold War, the course will also examine how sexuality shaped and was shaped by political ideologies. In short, by examining the centrality of "who can have sex with whom," students will rethink "standard" political narratives of twentieth-century Europe. Working with Dagmar Herzog's "Sexuality in Europe: A Twentieth-Century History," the main text of the course, and drawing on a variety of primary sources-including law and medical treatises, popular culture, and autobiographies-students will also gain an insight into the ways in which sexuality can be studied beyond archival sources.
Instructor(s): M. Appeltová Terms Offered: Winter
Equivalent Course(s): HMRT 23400, GNSE 23490, HLTH 23400, HIST 23400
HIPS 23507. Scientific Inference. 100 Units.
In this course we investigate the nature of inference in the scientific setting. Topics include induction, abduction, Bayesianism, and theories of hypothesis testing. Close attention will be paid to the question of what contribution formal techniques from probability and statistics make to our understanding of justified inference. (B) (II)
Instructor(s): K. Davey Terms Offered: Winter
Equivalent Course(s): CHSS 33507, PHIL 23507, PHIL 33507

HIPS 24103. Bioethics. 100 Units.
This is a lecture and discussion class that will explore how a variety of philosophic and religious thinkers approach the issues and problems of modern dilemmas in medicine and science in a field called bioethics. We will consider a general argument for your consideration: that the arguments and the practices from faith traditions and from philosophy offer significant contributions that underlie policies and practices in bioethics. We will use a case-based method to study how different traditions describe and defend differences in moral choices in contemporary bioethics. This class is based on the understanding that case narratives serve as another core text for the discipline of bioethics and that complex ethical issues are best considered by a careful examination of the competing theories as work themselves out in specific cases. We will examine both classic cases that have shaped our understanding of the field of bioethics and cases that are newly emerging, including the case of research done at our University. Through these cases, we will ask how religious traditions both collide and cohere over such topics as embryo research, health care reform, terminal illness, issues in epideemics and public health, and our central research question, synthetic biology research. This class will also explore how the discipline of bioethics has emerged to reflect upon such dilemmas, with particular attention to the role that theology and philosophy have played in such reflection.
Instructor(s): Laurie Zoloth Terms Offered: Spring
Note(s): Graduate students will meet in a separate section. This course meets the CS or LMCS Committee distribution requirement for Divinity students.
Equivalent Course(s): RLIST 24103, RETH 30600, SIGN 26069, BIOS 29216, HLTH 24103

HIPS 24341. Topics in Medical Anthropology. 100 Units.
Over the past two decades, the field of “global health” has become the dominant narrative and organizing logic for interventions into health and well-being worldwide. This seminar will review theoretical positions and debates in anthropology, focusing on the decolonizing global health movement. Divergent historical legacies of colonialism and racism, institutionalized forms of structural violence, and modern-day extractive capitalism have resulted in stark global inequities, which currently stand at shockingly unprecedented levels. This seminar offers a critical lens to rethink contemporary global health’s logic and practice by considering other histories and political formations, experiences, and knowledge production systems. This seminar opens up a space for generative dialogue on the future directions of what constitutes health, equity, and aid, and whether social justice is or should be the new imperative for action.
Instructor(s): P. Sean Brotherton Terms Offered: Not Offered 2021-22; may be offered 2022-23
Prerequisite(s): Strongly recommended: previous lower-division courses in the social studies of health and medicine through ANTH, HIPS, HLTH, or CHDV
Note(s): This is an advanced reading seminar. Among undergraduates, 3rd and 4th year students are given priority. Consent only: Use the online consent form via the registrar to enroll.
Equivalent Course(s): HLTH 24341, ANTH 24341, CHDV 40301, KNOW 24341, KNOW 40312, CHSS 40310, CRES 24341, ANTH 40310, CHDV 24341

HIPS 24352. Health, Value, Politics. 100 Units.
TBD
Instructor(s): Kaushik Sunder Rajan Terms Offered: TBD
Equivalent Course(s): ANTH 24352, HLTH 24352

HIPS 24706. Science in the South: Decolonizing the Study of Knowledge in Latin America & the Caribbean. 100 Units.
This seminar will bridge anthropology and histories of science, technology, and medicine to Latin American decolonial thought. Throughout Latin America, techno-scientific objects and practices, with their presumed origin in the Euro-Atlantic North, are often complexly entangled with neo-imperial projects of development and modernization that elongate social forms of colonization into the present. Technoscience and its objects, however, can also generate new creative, political, and life-enhancing potentials beyond or despite their colonial resonances, or even provide tools to ongoing struggles for decolonization. Together, seminar participants will explore what a decolonial approach to the study of science, technology, and medicine in the Global South, particularly in Latin America, has been and could become and how decolonial theory can inflect our own disciplinary, conceptual, and political commitments as anthropologists of technoscience.
Instructor(s): S. Graeter Terms Offered: TBD
Equivalent Course(s): ANTH 23026, LACS 24706

HIPS 24901. Darwin’s "On the Origin of Species" and "The Descent of Man" 100 Units.
This lecture-discussion course will focus on a close reading of Darwin’s two classic texts. An initial class or two will explore the state of biology prior to Darwin’s Beagle voyage, and then consider the development of his theories before 1859. Then we will turn to his two books. Among the topics of central concern will be the logical, epistemological, and rhetorical status of Darwin’s several theories, especially his evolutionary ethics; the
another to establish overseas trade and military networks in the sixteenth, seventeenth, and eighteenth centuries, and determine their usefulness. As the Spanish, Portuguese, British, French, and Dutch competed with one another to establish overseas trade and military networks in the sixteenth, seventeenth, and eighteenth centuries, exposed Europeans for the first time to unknown flora and fauna, which required acute empirical observation, was upended by the first European encounters with the New World. The encounter with these new lands (sometimes) people-in the context of European imperial expansion during the early modern era. Natural history devoted to describing and understanding the physical world of plants, animals, natural environments, and topics of environmental history by way of classic and recent works in the field: Crosby, Cronon, Worster, Russell, and McNeill, etc. Major topics of investigation include preservationism, ecological imperialism, evolutionary history, forest conservation, organic and industrial agriculture, labor history, the commons and land reform, energy consumption, and climate change. Our scope covers the whole period from 1492 with case studies from European, American, and British imperial history.

This lecture-discussion course will consider the main figures in the history of biology, from the Hippocratics and Aristotle to Darwin and Mendel. The philosophic issues will be the kinds of explanations appropriate to biology versus the other physical sciences, the status of teleological considerations, and the moral consequences for human beings.

HIPS 24908. Being Human: Histories of Paleoanthropology, Origins, and Deep Time. 100 Units.
What does it mean to be “human,” and how have different sciences been used at different points in time to answer that question? While the scientific discipline of paleoanthropology-the study of human evolution and the deep human past-only emerged at the start of the twentieth century, it grew out of both nineteenth-century investigations into mysterious stone tools and the fossils of strange prehistoric creatures and much older traditions about origins, creation, and the nature of human difference drawn from history, religious faith, and the mythological tradition. This seminar will explore the connected histories of paleoanthropology, prehistory, and the geosciences from the late eighteenth to the early twenty-first century, and consider how these sciences have been shaped by ideas about history, human nature, gender and race, and the earth itself.

Instructor(s): R. Richards Terms Offered: Autumn
Note(s): Assignments: several short papers and one long paper.
Equivalent Course(s): FNDL 24905, HIST 24905, HIST 34905, PHIL 33015, PHIL 23015, CHSS 38400

HIPS 25011. Debating Science: Legitimacy, Authority, and Knowledge. 100 Units.
How can we tell what counts as science? That is, how does science make itself legible as science? Are the social sciences “as scientific” as the natural sciences? By concerning itself with practices of legitimation, this course introduces students to the social study of science and linguistic anthropological theory. Students will consider the sociopolitical dimensions of scientific activity through a theoretical lens which takes language use as a form of social action. They will consider concepts such as reliability, reproducibility, and objectivity. Case studies will likely include climate change skepticism, education research, and neurodiversity. Students will end the quarter by writing and presenting on a current or historical topic of “scientific” debate, that is, debate on the scientific status of a field or claim.

Instructor(s): Lily Ye Terms Offered: Spring
Equivalent Course(s): CHDV 25011

HIPS 25014. History and Philosophy of Biology. 100 Units.
This lecture-discussion course will consider the main figures in the history of biology, from the Hippocratics and Aristotle to Darwin and Mendel. The philosophic issues will be the kinds of explanations appropriate to biology versus the other physical sciences, the status of teleological considerations, and the moral consequences for human beings.

Instructor(s): R. Richards Terms Offered: Autumn
Note(s): For students taking PHIL 23405, the course is (B) (II).
Equivalent Course(s): PHIL 23405, PHIL 33405, KNOW 37402, HIST 35104, CHSS 37402, HIST 25104

HIPS 25114. Natural History and Empire, circa 1500-1800. 100 Units.
This course will examine natural history-broadly defined as a systematic, observational body of knowledge devoted to describing and understanding the physical world of plants, animals, natural environments, and (sometimes) people-in the context of European imperial expansion during the early modern era. Natural history was13

HIPS 25001. Kant’s Critique of Pure Reason. 100 Units.
This will be a careful reading of what is widely regarded as the greatest work of modern philosophy, Immanuel Kant’s Critique of Pure Reason. Our principal aims will be to understand the problems Kant seeks to address and the significance of his famous doctrine of “transcendental idealism”. Topics will include: the role of mind in the constitution of experience; the nature of space and time; the relation between self-knowledge and knowledge of objects; how causal claims can be justified by experience; whether free will is possible; the relation between appearance and reality; the possibility of metaphysics. (B) (IV)

Instructor(s): M. Boyle Terms Offered: Winter
Equivalent Course(s): CHSS 37901, PHIL 27500, FNDL 27800, PHIL 37500

HIPS 25114. Natural History and Empire, circa 1500-1800. 100 Units.
This course will examine natural history-broadly defined as a systematic, observational body of knowledge devoted to describing and understanding the physical world of plants, animals, natural environments, and (sometimes) people-in the context of European imperial expansion during the early modern era. Natural history was upended by the first European encounters with the New World. The encounter with these new lands exposed Europeans for the first time to unknown flora and fauna, which required acute empirical observation, collection, cataloguing, and circulation between periphery and metropole in order to understand their properties and determine their usefulness. As the Spanish, Portuguese, British, French, and Dutch competed with one another to establish overseas trade and military networks in the sixteenth, seventeenth, and eighteenth centuries,
they also competed over and shared information on natural resources. The course will combine lecture and discussion and mix primary source readings on natural history in the early modern world with modern historical writings. Though the readings skew a bit toward Britain and the British Atlantic world, every effort has been made to include texts and topics from multiple European and colonial locales. Topics and themes will include early modern sources of natural history from antiquity and their (re)interpretation in imperial context; early modern collecting cultures and cabinets of curiosities; Linnaeus and the origins of mindfulness as a mode of public health intervention. Mindfulness involves social epistemologies of how we learn, imagine, communicate, pay attention, and experience affect. How can we understand and critique the multifaceted agency of the universal Turing machine—computers and networks, we provide information that generates the basis for big (and small) data. At the crux of our investigation—on the one hand into reading and conversation and on the other hand into algorithms and information theory—are issues about human action and the multifaceted agency of the universal Turing machine.

In contrast to print culture and electronic culture, yet embedded in them, contemporary digital culture engages us in human-computer systems empowered as media for mobile communication in the global network society. Through our distributed cognition with tools of all kinds, as we engage in participatory culture using digital computers and networks, we provide information that generates the basis for big (and small) data. At the crux of our investigation—on the one hand into reading and conversation and on the other hand into algorithms and information theory—are issues about human action and the multifaceted agency of the universal Turing machine.

Feminist perspectives on science come from anthropology, sociology, history, and philosophy. What they have in common is a determination to uproot the deepest and least visible forms of oppression in our society: those pertaining to facts and methods we unquestioningly take to be true, known, and valid. We will first acquaint ourselves with the value-free ideal of science as an objective, rational process of discovery, and the ways this ideal has been wielded as an instrument of domination. We will spend the rest of the quarter challenging this dogma by (1) historically demonstrating science’s symbiotic alliances with political ideologies of gender and race, (2) ethnographically examining structural and interactive practicalities of knowledge-construction and -circulation that reproduce social oppression, and (3) epistemologically deconstructing the very notions of objectivity and rationality that are used to insulate science from feminist critique. Works include but are not limited to authors Linda Schiebinger, Evelynn Hammonds, Emily Martin, Sharon Traweek, Susan Leigh Star, Joan Fijimura, Helen Longino, Heather Douglas, Donna Haraway, Elizabeth Anderson, Sandra Harding, and Susan Haack.

In this course we present a history of Brazil-Argentina nuclear cooperation and how Brazil is planning the transition of its electric matrix from predominantly hydraulic towards a mix with increased share of nuclear power. Proliferation risks are a main concern of international community when nuclear programs expansion is considered. The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials, created in 1991, has been fundamental in assuring the international community (via the International Atomic Energy Agency) that the nuclear materials and facilities of both countries are being used for peaceful purposes. Domestically, the debate has been environmental in nature, and concerns topics ranging from mining to power generation, and from radioactive materials disposal to radiation effects in living organisms and major accidents. These diplomatic, environmental, social and political issues are in turn dependent on technical details of the thermoelectric generating process, and this nexus of issues provides the topics for the course.

We learn, imagine, communicate, pay attention, and experience affect. How can we understand and critique the multifaceted agency of the universal Turing machine—computers and networks, we provide information that generates the basis for big (and small) data. At the crux of our investigation—on the one hand into reading and conversation and on the other hand into algorithms and information theory—are issues about human action and the multifaceted agency of the universal Turing machine.

History, Philosophy, and Social Studies of Science and Medicine (HIPS)
readings and discussions, this course teaches embodied practices of attention and awareness through the curriculum of Mindfulness-Based Stress Reduction.

Instructor(s): M. Browning Terms Offered: Winter
Equivalent Course(s): TAPS 20507, HUMA 25207, HLTH 25207, MAAD 14207

HIPS 25209. American Pragmatism, Evolution, and the Sciences. 100 Units.
Classical American pragmatism was not an insular philosophical tradition. Rather, it was a major movement, spanning almost a century of U.S. intellectual history, incorporating evolutionary-theoretical insights into all areas of inquiry. This applied not only to the problems of philosophy, but also to various branches of scientific research. Why did pragmatist thinkers construct a philosophical basis out of Darwinian and Spencerian theories of evolution? How was this evolutionary philosophical basis applied towards a transformation of sciences such as psychology, sociology, education science, economics, and even physics? Who were the agents of such transformation projects? How did their lives and projects overlap and diverge? Our class will explore the origins and development of this intellectual movement that occupied a dominant position in major American schools such as Harvard, Columbia, and our own University of Chicago between the 1860s and the 1950s.

Instructor(s): P. Mostajir Terms Offered: Spring. Spring 2020
Equivalent Course(s): SOCI 20534, AMER 25209, KNOW 25209

HIPS 25210. Medical Ethics in the Hospital and Clinic. 100 Units.
This course will cover the history of machine intelligence, with an emphasis on the sociological, philosophical, and ethical questions raised by this history up to our present moment. We’ll look at how people throughout the last two hundred years have grappled with questions like: Can machines think? What is information? How does data relate to the “real world”? Who is responsible for the actions of a machine? We will examine how developments in mathematical logic, electrical engineering, cybernetics, and statistics interact with each other and with the wider political and cultural context. This course does not require any specific technical background, but we will sometimes read and discuss technical materials together in class. Weekly, lectures regarding relevant clinical and basic medical scientific topics will be offered to inform students’ ethical decision-making.

Instructor(s): S. Server Terms Offered: Spring. Spring 2022

HIPS 25211. Computers, Minds, Intelligence and Data. 100 Units.
Science is the controversial view that scientific methods are the best or only valid means for acquiring knowledge. The implications of this position are vast. If only science can provide knowledge, what are the arts and humanities contributing? If only scientific structures and categories adequately reflect reality, how should we understand human morality and culture? What does all this suggest about how we should determine public policy? While science is a topic of intense contemporary debate, it has a deep history in which its theoretical and practical components have evolved according to shifting intellectual, social, and political demands. We will explore debates on scientism (and its cousin, positivism) throughout Europe and the United States in the nineteenth, twentieth, and twenty-first centuries to better understand the many facets and consequences of this controversial viewpoint. A major question in this course is whether our historical analysis can provide insights (and perhaps solutions) for twenty-first century debates on scientism.

Instructor(s): J. Foley Terms Offered: Spring. Spring 2021

HIPS 25212. Scientism. 100 Units.
Modernitys and Microscopes: Sociopolitical Conflict and Scientific Knowledge in Modern Europe. 100 Units.
Modernities and Microscopes: Sociopolitical Conflict and Scientific Knowledge in Modern Europe” examines the relationship between major sociopolitical and scientific events in Western and Central Europe between 1815 and 1945. In week two, for example, we will analyze the role of the post-Napoleonic “Vienna System” in the consolidation of the statistical style of reasoning in France, while in week seven we will explore the connection between interwar politics in Austria and Germany and the rise of various eugenicist movements. By the end of the course, students should have a better understanding of a critical period in European history and acquired a set of theoretical tools for understanding how sociopolitical and epistemic developments are related.

Instructor(s): Zachary Barr Terms Offered: Spring. Offered in Spring 2022
Equivalent Course(s): HIST 25122

HIPS 25213. Modernities and Microscopes: Sociopolitical Conflict and Scientific Knowledge in Modern Europe. 100 Units.

Instructor(s): P. Mostajir Terms Offered: Winter. Winter 2020
HIPS 25214. Histories of Scientific Communication, 1650-1914. 100 Units.
In a 2004 address to the History of Science Society, historian James Secord exhorted his audience to play closer attention to what he called "knowledge in transit," meaning the practices and mechanisms that have historically served to circulate knowledge claims, arguing that "questions of 'what' is being said can only be answered through a simultaneous understanding of 'how,' 'where,' 'when,' and 'for whom.'" The aim of this course is to apply Secord's maxim to a series of case studies in the history of science. Specifically, each week we will examine a different form of scientific communication or inscription, ranging from the public demonstration to the scientific image, and analyze its role within a broader regime of knowledge production. In week three, for example, we will look at how the seventeenth-century experimentalist Robert Boyle was able to use a novel literary technology, the experimental report, to vouchsafe his controversial claims about the air-pump; while in week seven we will look at the rise of the scientific paper in the nineteenth-century and analyze its role as both cause and effect of the increasing specialization and quantification of research.
Instructor(s): Zachary Barr Terms Offered: Winter. Offered in Winter 2022
Equivalent Course(s): HIST 25105

HIPS 25215. A Laboratory for the End of the World: Philosophy and Science in Fin de Siècle Central Europe. 100 Units.
Throughout the fin de siècle period (1880-1914), academics, artists, and intellectuals across Austria and Germany were convinced that they were in the midst of a radical-and not necessarily positive-cultural transformation. Perhaps most famously, the Viennese journalist Karl Kraus declared that pre-war Central Europe had become "a laboratory for the end of the world." Although Kraus primarily had various aesthetic and sociopolitical experiments in mind when he expressed this apocalyptic sentiment, his remark was no less applicable to Germanophone science and philosophy, which were then experiencing a period of dramatic intellectual uncertainty and crisis stemming from the decline of traditional perspectives and the rise of new successors. The aim of this course is to explore these revolutionary changes in more detail.
Instructor(s): Zachary Barr Terms Offered: Winter. Offered in Winter 2022
Equivalent Course(s): HIST 25200

HIPS 25218. American Epidemics, Past and Present. 100 Units.
This course explores how disease epidemics have shaped watershed periods in US history from the late eighteenth century to the present. Through readings, lectures, and in-class discussions, we will employ different categories of analysis (e.g., race, gender, class, and citizenship) to answer a range of historical questions focused on disease, health, and medicine. For instance, to what extent did smallpox alter the trajectory of the American Revolution? How did cholera and typhoid affect the lived experiences of slaves and soldiers during the Civil War? In what ways did the US government capitalize on fears over yellow fever and bubonic plague to justify continued interventions across the Caribbean and the Pacific? What do these episodes from the American past reveal about contemporary encounters with modern diseases like HIV/AIDS, Ebola, and COVID-19? Course readings will be drawn from book chapters and scholarly articles, as well as primary sources ranging from public-health reports, medical correspondence, and scientific journals to newspapers, political cartoons, maps, and personal diaries. Grades will be based on participation, weekly Canvas posts, peer review, and a series of written assignments (a proposal and an annotated bibliography, primary source analysis, book review, and rough draft) all of which will culminate in a ten-page final research paper.
Instructor(s): C. Kindell Terms Offered: Winter
Equivalent Course(s): HIST 25218, ENST 25218, AMER 25218, CRES 25218, GNSE 25210, HLTH 25218, GLST 25218

HIPS 25270. Infrastructure Histories. 100 Units.
Dams, sewers, container ships, water pipes, power lines, air conditioning, and garbage dumps: the critical infrastructures that enable modern life are so often invisible, except when they fail. This course explores the historical role of infrastructure as a set of planet-spanning systems of resource extraction and crucial conduits of social and political power. Looking at cases from apartheid South Africa and the Suez Canal to Mumbai and Chicago itself, we will consider the relationship of infrastructure with capitalism, settler colonialism, and postcolonial development. We will see how forms of citizenship and exclusion have been shaped and negotiated via wires, leaky pipes, and improvised repairs, and we will consider perhaps the biggest question of all: In this age of ecological crisis, do energy-guzzling infrastructural systems have a strange form of more-than-human agency all of their own?
Instructor(s): L. Chatterjee Terms Offered: Autumn
Note(s): Assignment: a long paper
Equivalent Course(s): CHSS 35270, HIST 25027, HIST 35027, ARCH 25027, ENST 25027

HIPS 25309. History of Perception. 100 Units.
Knowing time. Feeling space. Smelling. Seeing. Touching. Tasting. Hearing. Are these universal aspects of human consciousness, or particular experiences contingent upon time, place, and culture? How do we come to know about our own perceptions and those of others? This course examines these and related questions through detailed readings of primary sources, engagement in secondary scholarship in the history and anthropology of sensation, and through close work with participants' own sensations and perceptions of the world around them.
Equivalent Course(s): HIST 35309, HIST 25309, CHSS 35309, ANTH 24308, ANTH 34308, KNOW 31404, KNOW 21404
HIPS 25402. Disastrous Histories: Scientific and Social Understandings of Modern Disasters. 100 Units.
How could this happen? This question reverberates following a disaster. You yourself may have asked it about COVID-19, the 2020 California wildfires, or the 2021 Texas power grid failure, to name a few. While scientific disciplines can help us understand the hazards and risks that lead to disaster, they cannot equip us with all the tools to prevent or mitigate disaster. This course argues that disasters arise when environmental hazards interact with societal structures (infrastructure, racial disparities, religious belief, historical inequalities, etc.) to produce human loss and suffering. This means that there are no “man-made” or “natural” disasters, each being a combination of human and environmental factors. In order to understand and communicate about disaster events, one must understand the history of these societal structures. This class aims to provide students with the tools to understand and talk about disaster. Following the long arch of global disaster history in the modern age, the class starts with the emergence of the categories of man-made and natural disaster in the early modern era and ends with a consideration of how climate change has once again collapsed these categorizations. In order to recognize the relevance of disaster histories to the present day, the class culminates in a final project on conveying information about a historical disaster to a public audience.
Instructor(s): A. Jania Terms Offered: Autumn
Equivalent Course(s): GLST 25402, HIST 25402

HIPS 25421. Renaissance Book History: Censorship and the Print Revolution. 100 Units.
Collaborative research seminar on the history of censorship and information control, with a focus on the history of books and information technologies. The class will meet in Special Collections, and students will work with rare books and archival materials. Half the course will focus on censorship in early modern Europe, including the Inquisition, the spread of the printing press, and clandestine literature in the Renaissance and Enlightenment, with a special focus on the effects of censorship on classical literature, both newly rediscovered works like Lucretius and lost books of Plato, and authors like Pliny the Elder and Seneca who had been available in the Middle Ages but became newly controversial in the Renaissance. The other half of the course will look at modern and contemporary censorship issues, from wartime censorship, to the censorship of comic books, to digital-rights management, to free speech on our own campus.
Instructor(s): A. Palmer Terms Offered: Winter

Note(s): Assignments: short and long papers, alternative assignments
Equivalent Course(s): SIGN 26010, HIST 35421, RLST 22121, KNOW 31403, CLAS 35417, HREL 34309, HIST 25421, KNOW 21403, CHSS 35421, CLCV 25417

HIPS 25427. The Global Atomic Age. 100 Units.
The nuclear bombings of Hiroshima and Nagasaki 75 years ago was the advent of the atomic age. Paradoxically, the same technology that had unleashed infernos on the Japanese population was heralded in other contexts as utopia in waiting. This course examines how the atom transformed global politics and remade social life, culture, and even the way people experienced emotions. We will use a broad range of sources-including but not limited to historical scholarship, film, poetry, and architecture-to examine the global expansion of nuclear energy, weapons proliferation and militarization, gender and the politics of reproduction, decolonization, nuclear fear and disasters, labor at atomic facilities and in uranium mines, environmentalism and the problem of waste, and nuclear mass politics.
Assignments: three essays (1,000-1,500 words each) due in weeks three, six, and nine, which use course-related materials to respond to an assigned prompt. In lieu of a final exam, a portfolio of work from the quarter and a short reflective essay (1,000-1,250 words).
Instructor(s): T. Kahle
Equivalent Course(s): HIST 25427, ENST 25427

HIPS 25507. Make Love, Not Babies: A History of Population Control. 100 Units.
People have been worrying about population-and the strain that growing numbers of people have on natural resources and the environment-since at least the late eighteenth century, when Thomas Malthus penned his Essay on the Principle of Population. This course will follow the history of environmentally motivated population control movements, from Malthus to French feminists at the turn of the twentieth century, to the birth of the environmental movement in the United States in the late 1960s, to international efforts to control population in the developing world in the 1990s. Students will encounter the perspectives of feminists, environmentalists, and economists as we consider how race, reproductive rights, and the legacy of humanitarian intervention have shaped global approaches to population.
Instructor(s): P. O’Donnell Terms Offered: Winter
Note(s): Assignments: short papers, in class presentation, long paper
Equivalent Course(s): HLTH 25507, GNSE 25507, HIST 25507, ENST 25507

HIPS 25525. Environmental Histories of the Global South. 100 Units.
Drawing on cases from Africa, Latin America, and especially Asia, this course explores key themes in the modern environmental history of the world beyond the rich industrialized North. Our investigations will focus on the ecological impacts of colonialism, war, and development, and how environmental management has helped to construct modern states and capitalist practices in turn. Ranging from the malarial plantations of the Caribbean to the forests of southeast Asia, we will analyze not-so-natural disasters like floods and chemical spills as well as the slow violence of deforestation and droughts. Combining primary sources with classic scholarship, we will encounter pioneering green activists like the original “tree huggers” of the Himalayas and environmental advocates for brutal population control. The course will conclude by examining the emergence of a newly assertive Global South in international climate negotiations, and its implications for the environmental history...
of our planet at large. The course is open to all, but may be of particular interest to students who have taken "Introduction to Environmental History."

Instructor(s): L. Chatterjee
Terms Offered: Winter

Note(s): Assignments: in-class presentation and a long paper.
Equivalent Course(s): CHSS 35525, HIST 35024, ENST 25025, SARC 35025, HIST 25025, SARC 25025

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: Not offered in 2021-2022.
Prerequisite(s): Prior statistics course
Equivalent Course(s): STAT 26700, CHSS 32900, STAT 36700

HIPS 25808. Lab, Field, and Clinic: History and Anthropology of Medicine and the Life Sciences. 100 Units.
In this course we will examine the ways in which different groups of people-in different times and places-have understood the nature of life and living things, bodies and bodily processes, and health and disease, among other notions. We will address these issues principally, though not exclusively, through the lens of the changing sets of methods and practices commonly recognizable as science and medicine. We will also pay close attention to the methods through which scholars in history and anthropology have written about these topics, and how current scientific and medical practices affect historical and anthropological studies of science and medicine.

Instructor(s): M. Rossi
Terms Offered: Spring
Equivalent Course(s): HIST 25308, HIST 35308, ANTH 34307, KNOW 25308, CHSS 35308, KNOW 30202, ANTH 24307

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 the period from the fall of Rome to the Scottish Enlightenment. The course will begin with an examination of the medieval hylomorphism of Aquinas and Ockham and then consider its rejection and transformation in the early modern period. Three distinct early modern approaches to philosophy will be discussed in relation to their medieval antecedents: the method of doubt, the principle of sufficient reason, and empiricism. Figures covered may include Ockham, Aquinas, Descartes, Avicenna, Princess Elizabeth, Émilie du Châtelet, Spinoza, Leibniz, Abelard, Berkeley, Hume, and al-Ghazali.

Instructor(s): D. Moermer
Terms Offered: Winter
Prerequisite(s): Completion of the general education requirement in humanities required; PHIL 25000 recommended.
Equivalent Course(s): MDVL 26000, PHIL 26000

HIPS 26075. The End of Certainty? Chaos, Complexity, and Human Life. 100 Units.
What is uncertainty? Is it a temporary state of affairs, a situation to be resolved with more data, or is it permanent feature of our world? This course examines how uncertainty, once understood as the absence of knowledge, has become an object of knowledge in its own right. We will pay particular attention to the fields of chaos theory and complexity science, which emerged in the late twentieth century from physics and mathematics but have since become widely applied sciences, making their way into fields as diverse as molecular biology and economic theory. Together we will follow the path of 'complexity' in its many forms, reading texts by geneticists, physicists, climate scientists, philosophers, economists and many others. By the end of the course we will have developed a shared archive of uncertainty, and gained a better understanding of how uncertainty underpins what we do, in fact, know. This course is collaborative, interdisciplinary and historical, and welcomes all interested students, including those with backgrounds in history, philosophy, biological sciences, environmental studies, mathematics, and economics.

Instructor(s): I. Gabel
Terms Offered: Autumn
Note(s): This course partially fulfills the research seminar requirement for the IRHUM major.
Equivalent Course(s): IRHU 27005, KNOW 26075

HIPS 26078. Normal People: History of the Human Sciences. 100 Units.
We often worry about what’s normal and what’s not. Is my IQ above average? What about my BMI? Should I be feeling this way? Is there a pill for that? People seem to have always been concerned with fitting in, but the way of describing the general run of practices and conditions as ‘normal’ is a rather recent phenomenon; testament to the vast influence modern science have had on how we understand ourselves. Charting a wide-ranging history of the ways that human traits and behaviors came to be classified and measured, this research seminar will introduce students to the theories and techniques used to distinguish the normal from the pathological and the deviant for the past 200 years. We will read Cesare Lombroso on born criminals and Richard von Krafft-Ebing on sexual perversion; learn about psychological tests and developmental milestones; and consider the kinds of people these scientific and medical efforts brought into being. In addition to lecture and class discussions, the course includes close engagement with a diverse historical archive: scientific and medical treatises, clinical case studies, diagnostic tools, and patient narratives. Students will also explore how the University of Chicago
contributed to the definition and establishment of normality through a project at the university's archival collections.

Instructor(s): Tal Arbel Terms Offered: Spring
Equivalent Course(s): SOCI 40255, CHDV 36078, HLTH 26078, CHSS 36078, KNOW 36078


Full title: "Nature, Science, and Empire in the Early Modern Iberian World, 1400-1800." Historians have often relegated Iberia and its New World domains from accounts of the developments of modern science. They have traditionally claimed that strict censorship and a commitment to orthodox Catholicism prevented Spain, once the most powerful empire of the world, from embarking on the path towards scientific modernity in the eighteenth century. Modern scholars, however, have challenged this narrative by embracing more inclusive concepts of "science" to explain the many ways in which early modern people related to nature. Some of these practices include the writing of natural histories, botanical research, and linguistic studies, all fields that Iberian scholars pioneered in their efforts to govern their vast domains. This course will introduce students to a diversity of scientific practices that flourished in the Hispanic world between 1400 and 1800.

Equivalent Course(s): HMRT 26301, GNSE 23142, HLTH 26078, CHSS 36078, KNOW 36078

HIPS 26230. Death Panels: Exploring dying and death through comics. 100 Units.

What do comics add to the discourse on dying and death? What insights do comics provide about the experience of dying, death, caregiving, grieving, and memorialization? Can comics help us better understand our own wishes about the end of life? This is an interactive course designed to introduce students to the field of graphic medicine and explore how comics can be used as a mode of scholarly investigation into issues related to dying, death, and the end of life. The framework for this course intends to balance readings and discussion with creative drawing and comics-making assignments. The work will provoke personal inquiry and self-reflection and promote understanding of a range of topics relating to the end of life, including examining how we die, defining death, euthanasia, rituals around dying and death, and grieving. The readings will primarily be drawn from a wide variety of graphic memoirs and comics, but will be supplemented with materials from a variety of multimedia sources including the biomedical literature, philosophy, cinema, podcasts, and the visual arts. Guest participants in the course may include a funeral director, chaplain, hospice and palliative care specialists, cartoonists, and authors. The course will be taught by a nurse cartoonist and a physician, both of whom are active in the graphic medicine community and scholars of the health humanities.

Instructor(s): Brian Callendar Terms Offered: Spring
Equivalent Course(s): ARTV 20018, KNOW 36230, KNOW 26230

HIPS 26301. Religion and AIDS. 100 Units.

The AIDS crisis was not an epoch that we survived. It is a battle that we are still fighting…when Americans talk about AIDS they are rarely just talking about a scientific problem or a pharmaceutical solution. They are instead offering a sociology of suffering and a plan for spiritual warfare.” - Kathryn Lofton Is it possible to understand current debates over public health or the role of religion in the public sphere without first examining religious responses to the AIDS crisis? This course focuses on the emergence of the AIDS epidemic during the peak of the American culture wars. As such, students will analyze the fraught intersection of political power structures, medical epistemologies, and religious views on bodies, sex, and public morality. Through a varied catalog of disciplinary frameworks, e.g., history, theology, medical ethics, sociology of religion, and history of medicine, students will weigh the accuracy of Lofton’s claim that for Americans, AIDS is more than just a disease. Thus, we will scrutinize moral rhetoric surrounding contraception and its public availability. We will discuss the extent to which religious philanthropy, especially on the international stage, reshaped approaches to global health. Finally, we will revisit the role of religious communities in providing both care for the sick and theological responses to suffering. Prior knowledge of religious studies and/or medical history is not required for the course.

Instructor(s): Mark M. Lambert Terms Offered: Autumn
Equivalent Course(s): HMRT 26301, GNSE 23142, HLTH 26078, SOCI 20563, PBPL 25301, RLST 26301, CCTS 21014, CHST 26301

HIPS 26304. Religion and Abortion in the United States. 100 Units.

In American public discourse, it is common to hear abortion referred to as a "religious issue." But is abortion a religious issue? If so, in what ways, to whom, and since when? In this course we will answer these questions by tracing the relationship between religion and abortion in American history. We will examine the kinds of claims religious groups have made about abortion; how religion has shaped the development of medical, legal, economic, and cultural perspectives on the topic; how debates over abortion have led to the rise of a certain kind of religious politics in the United States; and how issues of race, class, gender, sexuality, and the body are implicated in this conversation. Although the course will cover a range of time periods, religious traditions, and types of data (abortion records from Puritan New England, enslaved people’s use of root medicine to induce miscarriage, and Jewish considerations of the personhood of the fetus, among others), we will give particular attention to the significance of Christianity in legal and political debates about abortion in the twentieth and twenty-first centuries. There are no prerequisites for this course and no background in Religious Studies is required. However, this course may be particularly well-suited to students interested in thinking about how their areas of study (medicine and medical sciences, gender and sexuality, race and ethnicity, political science) converge with religion and Religious Studies.

Instructor(s): tbd
HIPS 26316. Medical Innovation and Religious Reform in Early Modernity. 100 Units.
Through a survey of innovative medical authorities and religious reformers, students will investigate the co-
constitution of two bodies of knowledge at a historical moment (the sixteenth and seventeenth centuries) when
questions of authority and epistemology are in considerable flux. This period has long been implicated in the
"conflict thesis"—a hugely influential argument that portrays the centuries-long relationship between religion
and science/medicine as an inherently adversarial one. This course shall scrutinize that argument through a
discussion of seemingly contradictory examples where reformers that touted the all-encompassing reach of
divine providence also promoted intricate public health infrastructures; where the Vatican increasingly relied on
university-trained physicians to validate saints and their miracles; where theologians were viewed as authorities
on Galen and responsible for medical breakthroughs; and where medicine and metaphysics were considered
complementary pursuits. Ultimately, students will unveil a portrait not of conflict, but of a symbiotic relationship
between religion and medicine. The goal of our course will then be to query why religious reformers were not
only unthreatened by but also actively esteemed the medical arts as a valuable ally.
Instructor(s): Mark M. Lambert Terms Offered: Winter
Equivalent Course(s): HLTH 26316, CCTS 21013, HIST 24924, RLST 26316

HIPS 26382. Development and Environment in Latin America. 100 Units.
Description: This course will consider the relationship between development and the environment in Latin
America and the Caribbean. We will consider the social, political, and economic effects of natural resource
extraction, the quest to improve places and peoples, and attendant ecological transformations, from the onset of
European colonialism in the fifteenth century, to state- and private-led improvement policies in the twentieth.
Some questions we will consider are: How have policies affected the sustainability of land use in the last five
centuries? In what ways has the modern impetus for development, beginning in the nineteenth century and
reaching its current intensity in the mid-twentieth, shifted ideas and practices of sustainability in both
environmental and social terms? And, more broadly, to what extent does the notion of development help us
explain the historical relationship between humans and the environment?
Instructor(s): Diana Schwartz Francisco Terms Offered: Spring
Equivalent Course(s): LACS 26390, HIST 26390

HIPS 26390. Science and Society in Latin America. 100 Units.
How have ideas about and practices of science shaped life and society in Latin America? This course explores
the interconnected social and political realities of scientific theory and practice in modern Latin America.
Taking a historical approach, it will focus on the scientific management of social and political life, including
the construction of categories such as sex and race; the production, consumption, and policing of drugs; and
public health. In this discussion-based course, students will develop their own research project that historicizes a
contemporary question related to scientific knowledge and/or practice in the region.
Instructor(s): Diana Schwartz Francisco Terms Offered: Spring
Equivalent Course(s): LACS 26382, LACS 36382, GLST 26382, ENST 26382, GEOG 26382

HIPS 26701. Goethe: Literature, Science, Philosophy. 100 Units.
This lecture-discussion course will examine Johann Wolfgang von Goethe's intellectual development, from the
time he wrote Sorrows of Young Werther through the final states of Faust. Along the way, we will read a selection
of Goethe's plays, poetry, and travel literature. We will also examine his scientific work, especially his theory of
color and his morphological theories. On the philosophical side, we will discuss Goethe's coming to terms with
Kant (especially the latter's third Critique) and his adoption of Schelling's transcendental idealism. The theme
uniting the exploration of the various works of Goethe will be unity of the artistic and scientific understanding of
nature, especially as he exemplified that unity in "the eternal feminine." (B) (IV)
Instructor(s): R. Richards Terms Offered: Winter
Note(s): German would be helpful, but it is not required. Assignments: four papers (5–8 pages each).
Equivalent Course(s): CHSS 31202, FNDL 25315, KNOW 31302, GRMN 35304, GRMN 25304, HIST 35304, HIST
25304, PHIL 30610, PHIL 20610

HIPS 26943. Diasporic Narratives and Memories. 100 Units.
Diasporic Narratives and Memories: Designing a New Concept for a Multi-Ethnic Museum of Belarusian
Emigration This course project takes the instability of Belarusian identity as an advantage for creating a new
model of multi-ethnic, open emigrant community with a potential of cooperative democratic integration into a
larger multi-ethnic landscape of Chicago. This project's relevance goes beyond the Chicago community, offering a
model of multi-ethnic integration for building a civil society in the Belarusian homeland. The course will involve
theoretical readings in the studies of diaspora, training in oral histories gathering provided by the Chicago
History Museum, and weekly field trips to the diasporic museums in Chicago. We will analyze these museums'
curatorial and narrative concepts in order to build upon their strengths and to avoid their weaknesses. This
course is part of IFK's Experimental Capstone (XCAP) program for students interested in building upon their
experience by adding practice, impact, and influence as important dimensions of their undergraduate work.
Instructor(s): Olga Solovieva and Bozena Shallcross Terms Offered: Spring
Throughout the course we will attend to a generative diversity of epistemologies, anthropologies, and religious approaches to health and healing with particular attention to the postcolonial hybridity of these practices. Wellness, selfhood, and the boundaries of medicine. Third, we will reflect upon contemporary Indigenous counteract centuries-old stereotypical images of Native peoples and challenge our preconceived notions of practices as they are steeped in and curated by Indigenous traditions and religious beliefs. Our goal is to including the Caribbean, Mexico, United States, and Hawaii. Second, we shall attempt to understand healing of settler colonialism upon the social determinants of health for Indigenous peoples throughout the Americas, among the Indigenous peoples of the Americas. Our task will be threefold: first, to examine the drastic effects of Wolfgang Goethe), how they became separate (the two cultures') in the middle of the 20th century with the compartmentalization of academic disciplines, and how some attempts have recently been made at a reunification under the concept of 'consilience'. In the second part of the course, we will focus on conceptual issues such as the cognitive value of literature, the role of ideas in knowledge formation in science and literature, the role of creativity in scientific and literary production, and how scientific and philosophical ideas have been incorporated into literary fiction in the genre known as 'the novel of ideas'. As an example of the latter, we will read the novel 'One, No One, and 100,000' (1926) by Luigi Pirandello and discuss how this author elaborated and incorporated into literary fiction in the genre known as 'the novel of ideas'. As an example of the latter, we will read the novel 'One, No One, and 100,000' (1926) by Luigi Pirandello and discuss how this author elaborated and articulated a view of the human persona (including issues of identity and personality) from French philosophers and psychologists such as Henri Bergson and Alfred Binet. Instructor(s): E. Raikhel Terms Offered: Winter Prerequisite(s): PQ: Undergraduates must have completed or currently be enrolled in a SOSC sequence. Graduate option is only open to Master's students. Note(s): CHDV Distribution: C, D, 3, 4 Equivalent Course(s): CHDV 43204, ANTH 24330, CHDV 23204, ANTH 40330, HLTH 23204, KNOW 43204 HIPS 27515. Scientific and Humanistic Contributions to Knowledge Formation. 100 Units. In this course, we will explore whether the sciences and the humanities can make complementary contributions to the formation of knowledge, thus leading to the integration and unification of human knowledge. In the first part of the course we will take a historical approach to the issue; we will discuss how art and science were considered complementary for much of the 18th and 19th century (for example, in the views and work of Wolfgang Goethe), how they became separate (the two cultures') in the middle of the 20th century with the compartmentalization of academic disciplines, and how some attempts have recently been made at a reunification under the concept of 'consilience'. In the second part of the course, we will focus on conceptual issues such as the cognitive value of literature, the role of ideas in knowledge formation in science and literature, the role of creativity in scientific and literary production, and how scientific and philosophical ideas have been incorporated into literary fiction in the genre known as 'the novel of ideas'. As an example of the latter, we will read the novel 'One, No One, and 100,000' (1926) by Luigi Pirandello and discuss how this author elaborated and articulated a view of the human persona (including issues of identity and personality) from French philosophers and psychologists such as Henri Bergson and Alfred Binet. Instructor(s): E. Raikhel Terms Offered: Winter Prerequisite(s): PQ: Undergraduates must have completed or currently be enrolled in a SOSC sequence. Graduate option is only open to Master's students. Note(s): CHDV Distribution: C, D, 3, 4 Equivalent Course(s): CHDV 43204, ANTH 24330, CHDV 23204, ANTH 40330, HLTH 23204, KNOW 43204 HIPS 27520. Indigenous Religions, Health, and Healing. 100 Units. This course introduces students to the dynamic, often-contested understandings of health, healing, and religion among the Indigenous peoples of the Americas. Our task will be threefold: first, to examine the drastic effects of settler colonialism upon the social determinants of health for Indigenous peoples throughout the Americas, including the Caribbean, Mexico, United States, and Hawaii. Second, we shall attempt to understand healing practices as they are steeped in and curated by Indigenous traditions and religious beliefs. Our goal is to counteract centuries-old stereotypical images of Native peoples and challenge our preconceived notions of wellness, selfhood, and the boundaries of medicine. Third, we will reflect upon contemporary Indigenous approaches to health and healing with particular attention to the postcolonial hybridity of these practices. Throughout the course we will attend to a generative diversity of epistemologies, anthropologies, and religious
worldviews with the ultimate goal that a renewed understanding of Indigenous healing traditions will augment our own approaches to global/public health and the study of religion.

Instructor(s): Mark M. Lambert Terms Offered: Winter
Equivalent Course(s): RLST 27501, CHST 27501, CCTS 21016, CRES 21501, HLTH 27501

HIPS 28101. Psychoanalysis and Philosophy. 100 Units.
An introduction to psychoanalytic thinking and its philosophical significance. A question that will concern us throughout the course is: What do we need to know about the workings of the human psyche-in particular, the Freudian unconscious-to understand what it would be for a human to live well? Readings from Plato, Aristotle, Freud, Bion, Betty Joseph, Paul Gray, Lacan, Lear, Loewald, Edna O'Shaughnessy, and others.
Equivalent Course(s): PHIL 28210, FNDL 28210, SCTH 37501, PHIL 38209

HIPS 28319. Ephron course: Imagining Nature among the Greeks. 100 Units.
The goal of this course is to gain an understanding of the historical roots of the concept of nature (Greek physis), while being attentive to the diversity of ancient Greek thought about nature even in its early history. In the texts we will read, numerous notions of "nature" can be discerned: for instance, nature as the physical form of an individual, nature as an underlying reality of someone or something, nature as an autonomous thing distinct from human art and from the supernatural, nature as the all-encompassing natural order, or nature as the natural environment. The conceptual and ideological work done by these conceptions also varies wildly. Furthermore, the images associated with the concepts are similarly diverse, ranging from human bodies to magical plants and cosmic spheres, and with a comparable repertory of conceptual and ideological purposes. Yet discussions of the concept of nature typically deal almost exclusively in abstractions: this is true, for instance, of the standard study of physis written over a century ago as a U of C dissertation, which we will read in excerpt. Throughout this class, we will consider not only the explicit and abstract conceptualization of nature, but also a number of related images-especially in the form of metaphors, analogies and personifications-that ultimately fed into the literary and philosophical depictions of nature in the long traditions that have followed.
Instructor(s): L. Wash Terms Offered: Winter
Equivalent Course(s): CICL 28319

HIPS 28350. XCAP: The Experimental Capstone - The Art of Healing: Medical Aesthetics in Russia and the U.S. 100 Units.
What makes a medical treatment look like it will work? What makes us feel that we are receiving good care, or that we can be cured? Why does the color of a pill influence its effectiveness, and how do placebos sometimes achieve what less inert medication cannot? In this course we will consider these problems from the vantage points of a physician and a cultural historian. Our methodology will combine techniques of aesthetic analysis with those of medical anthropology, history and practice. We will consider the narratology of medicine as we examine the way that patients tell their stories-and the way that doctors, nurses, buildings, wards, and machines enter those narratives. The latter agents derive their meaning from medical outcomes, but are also embedded in a field of aesthetic values that shape their apperception. We will look closely at a realm of medical experience that continues to evade the grasp of instruments: how the aesthetic experience shapes the phenomenon of medical treatment.
Instructor(s): William Nickell; Brian Callender; Elizabeth Murphy Terms Offered: Autumn
Prerequisite(s): for BIOS 29209: This course does not meet the requirements for the Biological Sciences major.
Note(s): This course is one of three offered in The Experimental Capstone (XCAP) in the 2019-20 academic year. Enrollment in this course is restricted to 3rd and 4th year undergraduates in the College. For more information about XCAP, visit https://sifk.uchicago.edu/courses/xcap/
Equivalent Course(s): HLTH 29901, ARTV 20014, ANTH 24360, KNOW 29901, BIOS 29209

HIPS 29318. Modern Disability Histories: Gender, Race, and Disability. 100 Units.
This course introduces students to the conceptual apparatus of disability studies and major developments in disability history since the late nineteenth century. The course will consider disability beyond physical impairment, centering the ways in which notions of gender, race, class, sexuality, and ability interact and shape subjects, and how these subject positions shift across political watersheds. Students will engage a variety of sources, such as autobiographies, pamphlets, visual material, laws, and medical texts, as well as historiographical sources. Topics will include late nineteenth-century female “hysteria,” evolutionary approaches to sign language and orality, and the effects of industrialization on new impairments; early twentieth-century eugenics and the Nazi T4 program; postwar developments in prosthetics and discursive intersections between psychosis and civil rights movement. Students are encouraged to work on creative collective projects (e.g., an exhibit or a short video) in addition to written assignments.
Instructor(s): M. Appeltova Terms Offered: Spring Winter
Equivalent Course(s): GNSE 29318, HIST 29318, HLTH 29318, CRES 29318, HMR 29318, CHDV 29318

HIPS 29412. The Face in Western Culture from the Mona Lisa to the Selfie. 100 Units.
The course will approach the history of the human face from a variety of disciplinary perspectives, ranging across art history through to the history of science and technology. Topics will include the Mona Lisa and Renaissance portraiture; early modern identity and identity documents; the discipline of physiognomy; Johann Kaspar Lavater and the makings of racial science; the impact of photography; Alphonse Bertillon and the "mug shot"; smiles in advertisements; biometrics to facial recognition technologies; and the art and science of the selfie. The course will draw on specialized readings from secondary literature alongside a wide range of literary
Prerequisite(s): Priority registration is given to History majors.

Instructor(s): M. Rossi Terms Offered: Spring

The course will begin with an overview of the evolution of health care policy, among other topics. Students will be expected to conduct original research and produce an original research paper of fifteen to twenty pages.

The secondary sources we will examine changing causes of morbidity and mortality, the development of new medical technologies and infrastructures, shifting patterns of disease and shifting ideas about bodies, and debates about the interactions of medicine and society from 1800 to the present. Through a combination of primary and secondary sources we will examine changing causes of morbidity and mortality, the development of new medical technologies and infrastructures, shifting patterns of disease and shifting ideas about bodies, and debates about the ways in which doctors and patients—and scientists, artists, politicians, legislators, activists, and educators, among others—understand matters of health and disease, of proper and improper interventions, of the rights of individuals and the needs of communities? This course treats these questions as a starting point for exploring the interactions of medicine and society from 1800 to the present. Through a combination of primary and secondary sources we will examine changing causes of morbidity and mortality, the development of new medical technologies and infrastructures, shifting patterns of disease and shifting ideas about bodies, and debates about health care policy, among other topics. Students will be expected to conduct original research and produce an original research paper of fifteen to twenty pages.

Instructor(s): M. Rossi Terms Offered: Spring

Prerequisite(s): Priority registration is given to History majors.
Equivalent Course(s): HIST 29678

HIPS 29700. Readings and Research in History, Philosophy, and Social Studies of Science and Medicine. 100 Units.
Reading and Research for HIPS seniors working on their senior thesis.
Terms Offered: Autumn Spring Winter
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 Terms Offered: Autumn
Equivalent Course(s): HIST 25503, PHIL 25503

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

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.