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 (http://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: 300

<table>
<thead>
<tr>
<th>Period</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient</td>
<td>HIPS 18300</td>
</tr>
<tr>
<td>Early Modern</td>
<td>HIPS 18400-18403</td>
</tr>
<tr>
<td>Modern</td>
<td>HIPS 18500-18503</td>
</tr>
</tbody>
</table>

An approved sequence that fulfills the biological sciences general education requirement 200

One of the following sequences: 200

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

**MAJOR**

Three courses in science, social sciences, or mathematics beyond the introductory level 300

Five courses in an area of concentration 500

Two tutorials 200

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 29700</td>
<td>Readings and Research in History, Philosophy, and Social Studies of Science and Medicine 100</td>
</tr>
<tr>
<td>HIPS 29800</td>
<td>Junior Seminar: My Favorite Readings in the History and Philosophy of Science 100</td>
</tr>
<tr>
<td>HIPS 29900</td>
<td>Bachelor's Thesis 100</td>
</tr>
<tr>
<td>HIPS 29810</td>
<td>Bachelor's Thesis Workshop 100</td>
</tr>
</tbody>
</table>

Total Units 1400

* Credit may be granted by examination.

**EXAMPLES OF CONCENTRATIONS**

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

**History and Philosophy of Biological Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 23600</td>
<td>History and Theory of Human Evolution</td>
<td>100</td>
</tr>
<tr>
<td>BIOS 29321</td>
<td>Problem of Evil: Disease?</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 23900</td>
<td>Biological and Cultural Evolution</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 25801</td>
<td>Evolutionary Theory and Its Role in the Human Sciences</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 27860</td>
<td>History of Evolutionary Behavioral Sciences</td>
<td>100</td>
</tr>
</tbody>
</table>

Total Units 500

**Philosophy of Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPS 20300</td>
<td>Scientific/Technological Change</td>
<td>100</td>
</tr>
<tr>
<td>HIPS 22000</td>
<td>Introduction to Philosophy of Science</td>
<td>100</td>
</tr>
</tbody>
</table>
**HIPS 22708**  Planetary Britain, 1600-1900  100  
**HIPS 24900**  Natural Philosophy 1200-1800  100  
**HIPS 25400**  Philosophy of Mind and Science Fiction  100  
**Total Units**  500  

**History of Medicine and Medical Ethics**  
**HIPS 21600**  Advanced Medical Ethics: Health Care  100  
**HIPS 21911**  Medical Ethics: Who Decides and on What Basis?  100  
**HIPS 25900**  Darwinian Medicine  100  
**HIPS 26901**  History and Philosophy of Psychology  100  
**HIPS 27300**  Medicine and Culture  100  
**Total Units**  500  

**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 a form obtained from the adviser.  

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

Tutorial: 100

HIPS 29405 Tutorial: Evolution and Pragmatism

Concentration in History and Philosophy of Biology: 500

HIPS 22700 Philosophical Problems in the Biological Sciences
HIPS 23600 History and Theory of Human Evolution
HIPS 23900 Biological and Cultural Evolution
HIPS 25801 Evolutionary Theory and Its Role in the Human Sciences
BIOS 29321 Problem of Evil: Disease?

Total Units 600

Group 2

Tutorial: 100

HIPS 29606 Tutorial: Medicine, Disease, and Death in American History

Concentration in History of Medicine and Medical Ethics: 500

HIPS 21400 Intro To Medical Ethics
HIPS 21600 Advanced Medical Ethics: Health Care
HIPS 24800 Gender: Hist of Sci Tech Med
HIPS 25900 Darwinian Medicine
HIPS 27300 Medicine and Culture

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 2020
Equivalent Course(s): HIST 17310

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: Autumn. Course was offered in Autumn 2019.
Equivalent Course(s): HIST 17410, KNOW 18400

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 was offered in Autumn 2019
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 was offered in Winter 2020
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 was offered in Spring 2020.
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 Spring. Offered in Autumn and Spring 2021
Equivalent Course(s): HIST 17513

HIPS 20003. Discovering Anthropology: 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): R. Tuttle Terms Offered: Autumn. Autumn 2020
Equivalent Course(s): ANTH 20003, ANTH 38305, CRES 12300

HIPS 20300. Scientific/Technological Change. 100 Units.
Equivalent Course(s): CHSS 42300, PHIL 30300, PHIL 20300

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. Not offered in 2020-2021
Prerequisite(s): None
Equivalent Course(s): GLST 26807, MENG 20300, ENST 20300, HIST 25426, ANTH 22131

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 20500. Intermediate Logic. 100 Units.
This course provides a first introduction to mathematical logic for students of philosophy. In this course we will prove the soundness and completeness of deductive systems for both propositional and first-order predicate logic. (B) (II)
Instructor(s): A. Vasudevan Terms Offered: Winter
Prerequisite(s): Elementary Logic (PHIL 20100) or its equivalent.
Equivalent Course(s): PHIL 39600, PHIL 29400, CHSS 33600

HIPS 20700. Elementary Logic. 100 Units.
An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.
Instructor(s): Autumn 2020: G. Schultheiss; Winter 2021: M. Kremer Terms Offered: Autumn Winter
Equivalent Course(s): PHIL 20100, LING 20102, PHIL 30000, CHSS 33500

HIPS 20905. Advanced Logic. 100 Units.
Since Russell’s discovery of the inconsistency of Frege’s foundation for mathematics, much of logic has resolved around the question of to what extent we can or cannot prove the consistency of the basic principles with which we reason. This course will explore two main efforts in this direction. We will first look at proof-theoretic efforts towards demonstrating the consistency of various foundational systems, discussing the virtues and limitations of this approach. We will then closely examine Godel’s theorems, which are famous for demonstrating limits on the extent to which we can formulate consistency proofs. Much has been written on the implications of Godel’s theorems, and we will spend some time trying to carefully separate what they really entail from what they do not entail. Assessment will be by regular homework sets. Intermediate logic or prior equivalent required. (II) and (B).
Instructor(s): K. Davey Terms Offered: Spring
Prerequisite(s): Elementary Logic or equivalent
Equivalent Course(s): PHIL 39405, PHIL 29405, CHSS 39405

HIPS 21000. Introduction To Ethics. 100 Units.
In this course, we will read, write, and think about philosophical work meant to provide a systematic and foundational account of ethics. We will focus on close reading of two books, Immanuel Kant’s Groundwork of the Metaphysics of Morals and John Stuart Mill’s Utilitarianism, along with a handful of more recent essays. Throughout, our aim will be to engage in serious thought about good and bad in our lives. (A)
Instructor(s): C. Vogler Terms Offered: Winter
Equivalent Course(s): FNDL 23107, PHIL 21000

HIPS 21100. Celebrity and Science in Paleoanthropology. 100 Units.
This seminar explores the balance among research, ‘showbiz’ big business, and politics in the careers of Louis, Mary, and Richard Leakey; Alan Walker; Donald Johanson; Jane Goodall; Dian Fossey; and Biruté Galdikas. Information is gathered from films, taped interviews, autobiographies, biographies, pop publications, instructor’s anecdotes, and samples of scientific writings.
Instructor(s): R. Tuttle Terms Offered: TBD
Prerequisite(s): This course qualifies as a Discovering Anthropology selection for Anthropology majors.
Equivalent Course(s): ANTH 38300, ANTH 21406

HIPS 21347. To Preserve or Destroy: Anthropologies of Heritage. 100 Units.
Why do some monuments matter more than others? Why do we destroy some sites and preserve others? How do these objects and sites attain value? As witnessed in Charlottesville, heritage is at the heart of intense debates in politics and culture today. Questions of theft and colonial violence haunt museums, galleries, and other cultural institutions. Looting and repatriation-linked to archaeology’s complex history and of equal concern to contemporary anthropology-force us to contend with the very meaning of heritage, including why it matters, what it does, and to whom it rightfully belongs. Bringing archaeology and anthropology together, this course attends to these complex questions, exploring how monuments, heritage sites, and material culture are enmeshed 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.
Instructor(s): Hilary Leathem Terms Offered: Winter. This course was offered Winter 2020
Equivalent Course(s): ANTH 21347, ARCH 21347, GLST 23317

HIPS 21407. The Vocation of a Scientist. 100 Units.
Max Weber wrote that to be a scientist one needed a ‘strange intoxication’ with scientific work and a ‘passionate devotion’ to research as a calling. And yet, such passion seemed to conflict with the ideal of value-neutral inquiry. This class considers the vocation of science since the turn of the twentieth century. What political, economic, and cultural forces have shaped scientific professions in the United States? How are scientists represented in public culture? How was American science experienced during the colonization of the
Philippines? By exploring these questions, this class will examine the values and norms that make science into a meaningful vocation.
Terms Offered: TBD
Equivalent Course(s): ANTH 22129, KNOW 21407

HIPS 21408. History of Medicine. 100 Units.
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.
Equivalent Course(s): HIST 25314, CCTS 21408, KNOW 21408

HIPS 21409. History of Extraterrestrial Life. 100 Units.
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 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 freethought, 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): KNOW 21409, ECEV 31409, 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, GNSE 21411, CRES 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, HIST 22218, GNSE 21413, 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 tools and their use.

Equivalent Course(s): KNOW 21414

**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): CRE S 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): R. Tuttle

Terms Offered: Spring, Spring 2021

Prerequisite(s): BIOS 10130. NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition.

Equivalent Course(s): ANTH 21428, EVOL 38600, ANTH 38600, BIOS 13253

**HIPS 21609. Topics in Medical Ethics. 100 Units.**

Decisions about medical treatment, medical research and medical policy often have profound moral implications. Taught by a philosopher, three physicians, and a medical lawyer, this course will examine such issues as paternalism, autonomy, assisted suicide, abortion, organ markets, research ethics, and distributive justice in health care. (A)

Instructor(s): D. Brudney; Staff

Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing. This course does not meet requirements for the Biological Sciences major.

Note(s): Philosophy majors: this course fulfills the practical philosophy (A) requirement.

Equivalent Course(s): BIOS 29314, PHIL 21609, HLTH 21609, BPRO 22612

**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. Fashby

Terms Offered: Autumn

Equivalent Course(s): PHIL 32000, HIST 35109, PHIL 22000, CHSS 33300, PHIL 25109

**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

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. Cusen
Terms Offered: Winter
Equivalent Course(s): HIST 22310, ENST 22310, LLSS 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): K. Pagel
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: A
Equivalent Course(s): HLTH 21500, CHDV 21500, BIOS 23405, 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 32708, HIST 22708, CHSS 32708, KNOW 32808, KNOW 22708

**HIPS 22709. Introduction to Philosophy of Quantum Mechanics. 100 Units.**
In this class we examine some of the conceptual problems associated with quantum mechanics. We will critically discuss some common interpretations of quantum mechanics, such as the Copenhagen interpretation, the many-worlds interpretation and Bohmian mechanics. We will also examine some implications of results in the foundations of quantum theory concerning non-locality, contextuality and realism.

(B) (II)
Instructor(s): T. Pashby
Terms Offered: Spring
Prerequisite(s): Prior knowledge of quantum mechanics is not required since we begin with an introduction to the formalism. Only familiarity with high school geometry is presupposed but expect to be introduced to other mathematical tools as needed.

Equivalent Course(s): PHIL 22709, KNOW 22709, PHIL 32709, CHSS 32709

**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 necessary to describe and analyze 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, ANTH 24555, MAPS 32800, CHSS 32800, ANTH 35135

**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—such as 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): HIST 23400, HMRT 23400, GNSE 23490, HLTH 23400

[History, Philosophy, and Social Studies of Science and Medicine (HIPS)](#)
HIPS 24341. Topics in Medical Anthropology: Decolonizing Global Health. 100 Units.
This seminar will review theoretical positions and debates in the burgeoning fields of medical anthropology and science and technology studies (STS). We will begin this seminar exploring how ‘disease’ and ‘health’ in the early 19-century became inseparable from political, economic, and technological imperatives. By highlighting the epistemological foundations of modern biology and medicine, the remainder of this seminar will then focus on major perspectives in, and responses to, critical studies of health and medicine, subjectivity and the body, entanglements of ecology and health, humanitarianism, and psychoanalytic anthropology.
Instructor(s): P. Sean Brotherton Terms Offered: Winter. Winter 2021 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, CRES 24341, ANTH 24341, CHDV 24341, ANTH 40310, CHDV 40301, CHSS 40310

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

HIPS 24401. Freud & Psychoan: Lec/Cse Stud. 100 Units.
TBD Equivalent Course(s): FNDL 23302, PSYC 28501, PSYC 38501

HIPS 24706. Science in the South: Decolonizing the Study of Knowledge in Latin America & the Caribbean. 100 Units.
This seminar will bridge anthropologies 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): LACS 24706, ANTH 23026

HIPS 25001. Kant: 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) (V)
Instructor(s): M. Boyle Terms Offered: Autumn Equivalent Course(s): PHIL 27500, CHSS 37901, FNDL 27800, PHIL 37500

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. Introduction to Environmental History. 100 Units.
How have humans interacted with the environment over time? This course introduces students to the methods 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.
Instructor(s): F. Albritton Jonsson Terms Offered: Winter Equivalent Course(s): ENST 25014, CHSS 35014, HIST 25014, HIST 35014
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 collecting cultures and cabinets of curiosities; Linnaeus and the origins of Instruction(s): J. Niemeyer-Dohoney Terms Offered: Autumn
Equivalent Course(s): HIST 25114, ENST 25114

HIPS 25121. The Brazil-Argentina Nuclear Cooperation Agreement and Thermoelectric Transition in Brazil. 100 Units.
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.
Instructor(s): Ramos, Alexandre Terms Offered: Autumn
Note(s): Tinker Visiting Professor Autumn 2018
Equivalent Course(s): CHSS 35121, PPHA 39921, LACS 35121, LACS 25121

HIPS 25202. Feminist Perspectives on Science. 100 Units.
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 wielding 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 Londa Schiebinger, Evelyn Hammonds, Emily Martin, Sharon Traweek, Susan Leigh Star, Joan Fijimura, Helen Longino, Heather Douglas, Donna Haraway, Elizabeth Anderson, Sandra Harding, and Susan Haack.
Instructor(s): P. Mostajir Terms Offered: Autumn. Autumn 2020
Equivalent Course(s): GNSE 25222, SOCI 20517, ANTH 22124

HIPS 25205. Computers, Minds, Intelligence & Data. 100 Units.
How are we co-evolving with our machines? How do we teach ourselves and our computers how to learn? What kinds of human intelligences do we promote in liberal education in comparison with artificial intelligence(s)? 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—mobile phone, laptop, internet, robot.
Equivalent Course(s): HUMA 25205, MAAD 14205

HIPS 25206. Digital Culture: Artificial Intelligence, Algorithms, and the Web. 100 Units.
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. In our conjoined online and offline environments, we inhabit human-computer hybrids in which (for instance) we learn, imagine, communicate, pay attention, and experience affect. How can we understand and critique our theories, concepts, practices, and technologies of intelligence and information in relation to the capacities of these digital machines with which we co-evolve? For exploring this question, our case studies include comparing artificial and natural intelligences, as well as examining algorithms and their socio-political impacts, in current web functionalities such as search (Google) and social media (Facebook, Twitter).
Instructor(s): Browning, Margot Terms Offered: Course was not offered in 2019-20
HIPS 25207. Mindfulness: Experience and Media. 100 Units.
How do we experience media (of all kinds) with (or without) awareness? Methods of mindfulness offer principles and practices of awareness focusing on mind, body, and embodied mind. Mindfulness (a flexible, moment-to-moment, non-judging awareness) is an individual experience and at the same time, practices of mindfulness can be a mode of public health intervention. Mindfulness involves social epistemologies of how we know (or don’t know) collectively, as we interact with immediate sensory experience as well as with mediated communication technologies generating various sorts of virtual realities (from books to VR). In addition to 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

HIPS 25209. American Pragmatism: The Theory and Influence of a Philosophical Movement. 100 Units.
From a philosophical point of view, pragmatism is a tradition that seeks to overturn long-standing dogmas by reframing the relationship between subject and object, redefining the analytic category of ‘experience,’ and most famously, reconstructing theories of truth and meaning. It comprises a complete philosophical system, including metaphysics, philosophy of science, logic, social and political philosophy, ethics, and aesthetics. From a historical point of view, pragmatism was an intellectual movement which originated in a philosophy club in Harvard University in the late 19th century; became the predominant philosophical tradition in the United States for over half a century; influenced theories, practices, and styles across the arts, humanities, social sciences, education policy, and social work; clashed and conversed with the Germanophone tradition of logical positivism arriving from Europe during the inter-war years; and then all but vanished from American philosophy departments during the McCarthy era. This course will equip students with a theoretical, philosophical understanding of pragmatism, as well as an understanding of its historical context and lasting influence.
Instructor(s): P. Mostajir Terms Offered: Spring, Spring 2020

HIPS 25210. Medical Ethics in the Hospital and Clinic. 100 Units.
In this course, we depart from the ethical conversations that UChicago students may be used to having in the Core. Instead, we will examine the ethical quandaries that involve patients and families, doctors, nurses, researchers, and larger society by using a clinical perspective to frame our discussions. How is good medicine practiced? How should physicians think about conflicting social, professional, and personal duties? How do physicians integrate their knowledge with considerations about wider society to provide ethical care for patients? In the first week, we will introduce basic frameworks to organize our thinking around complex ethical problems in medical practice. We will use these frameworks to discuss general issues of ethical import to all fields of medicine: informed consent, decisional capacity, and end-of-life care. Most of our time will be spent exploring the big ethical questions in various medical specialties: surgery, psychiatry, obstetrics and gynecology, and pediatrics. Consideration will also be given to ethical research practices and global health service. 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: TBD Winter, Winter 2021

HIPS 25211. Computers, Minds, Intelligence and Data. 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, though we will sometimes read and discuss technical materials together in class. Weekly reading, writing, and research assignments will culminate in an independent research project.
Instructor(s): J. Foley Terms Offered: Spring, Spring 2021

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
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 perception, and through close work with participants’ own perceptions and experiences of the world around them. Equivalent Course(s): KNOW 31404, HIST 25309, CHSS 35309, HIST 35309, ANTH 24308, ANTH 34308, KNOW 21404

HIPS 25241. Censorship from the Inquisition to the Present. 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 the professor to prepare an exhibit, The History of Censorship, to be held in the Special Collections exhibit space in the spring. Students will work with rare books and archival materials, design exhibit cases, write exhibit labels, and contribute to the exhibit catalog. 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. 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. Students may choose whether to focus their own research and exhibit cases on classical, early modern, modern, or contemporary censorship. This course is part of the College Course Cluster, The Renaissance. Equivalent Course(s): HREL 34309, KNOW 31403, CHSS 35421, CLCV 25417, HIST 25421, HIST 35421, CLAS 35417, SIGN 26010, RLST 22121, KNOW 21403

HIPS 25247. 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 wide 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): ENST 25427, HIST 25427

HIPS 25600. History of Statistics. 100 Units.
This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data. Instructor(s): S. Stigler Terms Offered: Spring Prerequisite(s): Prior statistics course Equivalent Course(s): CHSS 32900, STAT 26700, 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 Note(s): This course fulfills part of the KNOW core seminar requirement. PhD students should register for KNOW 40202 to be eligible to apply for the SIFK dissertation fellowship. Equivalent Course(s): HIST 25308, CHSS 35308, KNOW 25308, KNOW 40202, ANTH 24307, HIST 35308, ANTH 34307

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. Moerner
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 26121. Nature, Science, and Empire in the Early Modern Iberian World, 1400-1800. 100 Units.**
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): HIST 26107, LACS 26617

**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 26382. Development and Environment in Latin America. 100 Units.**
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
Terms Offered: Winter
Equivalent Course(s): HIST 26317, HIST 36317, ANTH 23694, GEOG 26382, LACS 26382, LACS 36382, ENST 26382

**HIPS 26617. Sciences as Solutions to Latin American Challenges, 1500-2000. 100 Units.**
TBD
Equivalent Course(s): HIST 26107, LACS 26617

**HIPS 27004. Babylon and the Origins of Knowledge. 100 Units.**
In 1946 the famed economist John Maynard Keynes declared that Isaac Newton ‘was the last of the magicians, the last of the Babylonians.’ We find throughout history, in the writings of Galileo, Jorge Luis Borges, Ibn Khaldun, Herodotus, and the Hebrew Bible, a city of Babylon full of contradictions. At once sinful and reverential, a site of magic and science, rational and irrational, Babylon seemed destined to resound in the historical imagination as the birthplace of knowledge itself. But how does the myth compare to history? How did the Babylonians themselves envisage their own knowledge? And is it reasonable to draw, as Keynes did, a line that begins with Babylon and ends with Newton? In this course we will take a cross comparative approach, investigating the history of the ancient city and its continuity in the scientific imagination.
Instructor(s): E. Escobar
Terms Offered: Autumn
Equivalent Course(s): HIST 25617, NEHC 20215, KNOW 27004
HIPS 27005. Secrecy and Science. 100 Units.
This course traces the relationship between openness, secrecy, and the construction of scientific knowledge. Our sources span several millennia of intellectual history, from cuneiform tablets containing glassmaking recipes and the ‘secrets of the gods,’ to Medieval alchemical recipes, and to the first museums of natural history. We will investigate how and why science shifted from a subject intended for the elite few, to a more democratic ideal that embraced public demonstration. The role of patronage in the development of scientific knowledge, and the complex interaction between science and religion will be central to our discussions. Writing assignments will respond to thematic questions based on the readings.
Equivalent Course(s): HIST 24918, KNOW 27005, RLST 27550

HIPS 27301. Medical Anthropology. 100 Units.
This course introduces students to the central concepts and methods of medical anthropology. Drawing on a number of classic and contemporary texts, we will consider both the specificity of local medical cultures and the processes which increasingly link these systems of knowledge and practice. We will study the social and political economic shaping of illness and suffering and will examine medical and healing systems-including biomedicine-as social institutions and as sources of epistemological authority. Topics covered will include the problem of belief; local theories of disease causation and healing efficacy; the placebo effect and contextual healing; theories of embodiment; medicalization; structural violence; modernity and the distribution of risk; the meanings and effects of new medical technologies; and global health.
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): KNOW 43204, CHDV 23204, ANTH 40330, ANTH 24330, HLTH 23204, CHDV 43204

HIPS 27501. Freud: Human Dev/Personality. 100 Units.
Equivalent Course(s): HUDV 31300

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): SCTH 37501, PHIL 28210, PHIL 38209, FNDL 28210

HIPS 28319. Ephyron 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 physics 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): CLCV 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/
History, Philosophy, and Social Studies of Science and Medicine (HIPS)

Equivalent Course(s): ARTV 20014, BIOS 29209, ANTH 24360, HLTH 29901, KNOW 29901

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 and visual primary sources, including scientific texts, paintings, drawings, identity documents, photographs, advertisements, cosmetics, and prosthetic parts. The subject offers a great deal of room for the selection of a topic for a research paper on a subject of students' choices.
Prerequisite(s): Open to upper-level undergraduates.
Equivalent Course(s): HIST 29412

HIPS 29637. Tutorial: Evolution Beyond Darwin. 100 Units.
One of the most identifiable images associated with evolution is the visage of Charles Darwin. Historical narratives of evolution center on Darwin's work, and scientific publications today still note whether or not Darwin pre-empted their ideas. This course aims to build a narrative of evolution that brings the story up to today, asking why so many see Darwin as a shorthand for evolution and what consequences that might have for the development and communication of the science. In addition, it will interrogate other 'iconic' images and narratives in evolution like the tree of life. We will ask where our ideas about evolution have come from, how they are perpetuated, and what consequence that might have for the discipline of evolutionary biology.
The course has three aims: 1) to provide a historical understanding of evolution after Darwin; 2) to reflect on how evolution is communicated between scientists and to the broader public, and to ask how 'icons' or Darwin himself suggest implicit meanings counter to the work of the scientists; and 3) to more broadly examine what is a science-a process or a body of knowledge?
Instructor(s): E. Kitchen Terms Offered: Spring. Spring 2021
Equivalent Course(s): HIST 25023

HIPS 29638. TUTORIAL - Vitalism and Teleology in Biology: Historical and Philosophical Approaches. 100 Units.
Unsurprisingly, 'what is life?' has a claim to being one of the oldest questions in science, lagging only a little behind 'what is?' It may be more surprising to learn that arguably all major answers to the question-with materialism and epiphenomenalism on one end of the spectrum, holism and essentialism on the other-are about as old, and that the history of biology has been more a matter of recombining these answers than coming up with new ones. If biology is a game, its ground rules were laid early on. You may propose ingenious modifications of strategy, but go too far outside the box and your fellow players will likely accuse you of playing a different game altogether-if you haven't already been disqualified by the referees. We will approach these questions by considering the history of biology as the history of philosophical attempts at making sense of life, broadly conceived, from Aristotle to Darwin. Such 'philosophies' of life need not be held self-consciously-the most interesting ones often aren't. Rather, any scientific account of life necessarily entails making metaphysical commitments. By tracing the history of these commitments, we will consider which (if any) of their historical mutations have been novel, and where we currently stand. We will also consider the ways in which philosophies of life, with all their metaphysical entanglements, have themselves been entangled with politics and ideology.
Instructor(s): B. Deadman Terms Offered: Winter. Winter 2020
Equivalent Course(s): HIST 25022

HIPS 29639. TUT: The World's Columbian Exposition: Science, Race, Gender, & Music at the 1893 Chicago World Fair. 100 Units.
This course surveys the sights, sounds, and tastes that filled Jackson Park and the Midway Plaisance between May 1 and October 30, 1893. During those six months, over 27 million people flocked to Chicago's south side from across the United States and beyond the Atlantic to experience the marvels illuminating the World's Columbian Exposition. Visitors weaved their way through the newly-designed Midway Plaisance, where they passed exhibits of 'authentic villages of native peoples' in 'traditional' garb until they reached the entrance of the American White City-or, as it was presented, 'the apex of civilization'-where exhibits and lectures on the newest theories and innovations filled 200 Neoclassical buildings under 100,000 incandescent lights. Walking up the Midway demonstrated progress in human development in tune with the main topic of the White City's Congress of Evolution-Social Darwinism. In this course, students will learn about explicit displays of 'progress’ during the Gilded Age and will be challenged to interrogate allegories of it at the Columbian Exposition. Together, we will practice close-reading of primary and secondary texts, close-looking of images and objects, and close-listening of music and sounds. We will investigate how 'progress’ was staged and cogitated in terms of: Evolutionary theory, Race, Gender, Music, Architecture, and Technology.
Instructor(s): A. Clark Terms Offered: Autumn. Autumn 2020
Equivalent Course(s): GNSE 25021, CRES 25021, HIST 25021

HIPS 29678. History Colloquium: Medicine and Society. 100 Units.
How does medical knowledge change? How do medical practices transform over time? What factors influence 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. Assignment: 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: Winter 
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 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. Appeltová 
Terms Offered: Winter 
Equivalent Course(s): HIST 29318, CRES 29318, GNSE 23106, HMRT 29318, HLTH 29318, CHDV 29318

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

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.