HISTORY & SOCIOLOGY OF SCIENCE (HSSC)

HSSC 5008 Current Issues in Science & Technology Studies
A graduate-level reading seminar in STS, this course will survey major themes and readings as well as recent work in STS.
Fall
1 Course Unit

HSSC 5020 Public History
Public history, long marginalized and stigmatized in the scholarly world, is undergoing rehabilitation. The continuing, prodigious public demand for history in various media and manifestations, together with many historians’ desire for greater relevance and the persistently disappointing academic job market for new Ph.D.s., has reawakened interest in public history within the academy. This seminar examines the many varieties of public history while giving students hands-on experience, focusing on museums and historic sites.
Not Offered Every Year
1 Course Unit

HSSC 5050 Seminar in the History and Sociology of Science
Seminar for first-year graduate students, undergraduate majors, and advanced undergraduates. Reading will introduce the student to current work concerning the effect of social context on science, technology, and medicine.
Fall
1 Course Unit

HSSC 5108 Knowledge in Motion
This course provides a broad, interdisciplinary introduction to the movement of knowledge across space and time. In particular, we will be focusing on the economic models of knowledge movement, on comparative and trans-cultural views on science, on translation, and finally, on the global turn in the history of science. Since the movement of knowledge is inseparable from the production of knowledge, we will also start our discussion by looking back at some of the literature that constitutes the intellectual foundations of the history and sociology of science.
Not Offered Every Year
1 Course Unit

HSSC 5181 BOTANIC EMPIRE: Plants and Colonialism 1700 to 1950
Tea, rubber, cinchona, sugar and myriad other plants that have and continue to shape our contemporary world have been moved, altered and exploited by modern empires. With the rise of new forms of Biopiracy, older connections between plants and imperialism are being rethought not just academically but in multiple new practical, commercial and political arenas. Looking back from this contemporary vantage point, this course will explore the sites, sciences and instruments through which plants and empire came to be so intimately entangled. Topics shall range from the histories of botanic gardens to botanic illustrations and agricultural experimental stations to botanic horror fiction.
Not Offered Every Year
1 Course Unit

HSSC 5199 Other Reasons
This course seeks to destabilize a monolithic vision of science as a singular, homogenous body of knowledge by revisiting its plural, heterogeneous histories. This course is particularly interested in exploring the historical entanglements between the sciences and the enchanted world of intangible entities such as spirits, ghosts and gods. The course will look at the theoretical critiques of "Enlightenment Rationality" and "Science" in post colonial theory; at a detailed and loosely chronological examination of the multifaceted entanglements of science and technology with the paranormal in the 19th and 20th centuries; and at the performative aspects of scientific rationality in colonial and postcolonial contexts in a bid to understand the background that led to postcolonial theorization.
Not Offered Every Year
1 Course Unit

HSSC 5203 Periodization and Science
Who invented the Scientific Revolution? Does the term "modern science" tell us about the subject under discussion, how we should evaluate that subject, or something else? How are historical periodization and the historiography of science related? This course will explore the concept of historical epochs, or periods, and the role of science and technology in defining historical epochs (and vice-versa). Readings will be taken from philosophy of history, history and philosophy of science, STS, classical studies, and history of art.
Not Offered Every Year
1 Course Unit
HSSC 5207 Readings in Race & Science
What accounts for the persistence and resilience of racial conceptions in science? In this course we will look for answers to this and other questions by examining the historiography of race, colonialism, and science. The standard historiography has focused on the rise and fall of racial typologies in the north Atlantic and their contributions to troublesome political projects such as the Atlantic slave trade, Jim Crow policies, the eugenics movement, and the Holocaust. More recent histories have taken inspiration from postcolonial studies, standpoint theories, and indigenous studies to insist on a more global reckoning of race and science. If we focus on the southern hemisphere, for instance, we can see scientific racial conceptions enrolled for a different though not necessarily less innocent set of projects: the dispossession of indigenous lands and effacement of indigenous peoples, the glorification of race-mixing as a tool of nation building, and the cultivation of whiteness as a means to modernity. By examining classic and recent approaches to race and science we will grapple with the following questions: Is ‘race’ a product of 18th century French and English science? Or can we find earlier iterations in the idioms of conquest of Spanish America during the early modern period? Do the standard narratives concerning the history of racial conceptions in science change when looked at from the frame of the global south? Does race get “buried alive” after WWII? And do recent developments in human genomics bring “race” back from the dead, albeit in an anti-racist form?
Fall
1 Course Unit

HSSC 5251 Darwin and Evolution: New Perspectives
In this graduate reading seminar, we consider evolution as a cluster of sometimes mismatched theories about nature and time, a political resource in emerging debates about human difference and social order, and a theological conundrum that persists into the twenty-first century. We consider primary source materials by Lamarck, Chambers, Darwin, Wallace, Mayr, and other naturalists; and explore the contexts of their production and their meanings through the work of scholars including Browne, Secord, Keller, Richards (both Robert and Eveleen), Smocovitis, Graham and many others. Our goal is to develop new perspectives on “the Darwin Industry” and think critically about how to move the field forward drawing on the most exciting new scholarly work in this area.
Fall or Spring
1 Course Unit

HSSC 5288 Gender and Science
With a special focus on methods, this course explores the rich literature on gender and technical knowledge.
Not Offered Every Year
1 Course Unit

HSSC 5300 Current Issues in the History of Medicine
This seminar surveys a variety of popular and scholarly approaches to the study of medicine and its history, ranging from traditional physician-centered narratives to more recent cultural and epistemological methodologies. The potential values of journalistic, sociological, anthropological, geographical and other approaches to the historical study of health, disease, and health care will be explored.
Not Offered Every Year
1 Course Unit
**HSSC 5662 Seminar in American Architecture: Philadelphia: Urban Experience & Public Memory**

This seminar will challenge students to encounter and interpret the city around around them in unconventional ways. At a time when public commemoration has vigorously and sometimes violently re-entered our country's public discourse, we wish to re-examine how monuments, memory, politics, and our senses shape our understandings of Philadelphia's past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating monuments, films, and historical texts as key forms of interpretation - the building blocks of an official if unstable "public past," we will likewise attend to the "backdrop" of such written and built statements: everyday urban and domestic life as well as more public histories that have remained silent or risen to the surface at key moments.

Spring  
1 Course Unit
HSSC 5757 Industrial and Post Industrial Ages
In this course we are concerned with phenomena surrounding industrialization and de-industrialization, and with post-industrial types of technologies and labor. We start with recent reconceptualizations of the archetypal British "Industrial Revolution" and its close relations to Indian industry and economy, move to the US American South as an example of a global agricultural economy in the industrial age, take North American and Western Europe as lenses for transitions from industrial to post-industrial eras, and discuss the nuclear and computer age of the Cold War from a number of perspectives: the Global South and cybernetics, medicine and isotopes, the recent climate debate and underlying computing, an anthropology of post-industrial labor, and gene-patenting and biological manufacturing in the twenty-first century.
Not Offered Every Year
1 Course Unit

HSSC 5800 Environmental History
A survey of recent and influential works in environmental history, including works from both within and outside the American environmental history canon. The focus is on situating emerging historiographical trends within the long-term development of the field and in relation to other closely allied fields, including the history of science, technology, and medicine, social and cultural history, urban history, agricultural history, world history, historical ecology, environmental anthropology, and ecocriticism.
Not Offered Every Year
1 Course Unit

HSSC 5888 Humanities Beyond the Human
The humanities are once again influx as scholars experiment with a variety of new techniques and conceptual frameworks. In recent years many of these experiments have involved turning away from longstanding questions of representation, language, epistemology, and human exceptionalism and toward questions of enactment, materiality, ontology, and the nonhuman. In this seminar we will examine a variety of manifestations of this turn as they have emerged in history, anthropology, literary studies, and philosophy under names such as new materialism, multi-naturalism, big/deep history, multispecies ethnography, and object-oriented ontology. We will try to situate these recent turns in longer intellectual genealogies, drawing especially on works in science studies and the history of science that seek to provide contingent, situated accounts of what exists and what we can know about it. Objects of inquiry will include dogs, mushrooms, cyborgs, seeds, mosquitos, bacteria, stones, jugs, pictures, hormone disruptors, and the cosmos.
Not Offered Every Year
1 Course Unit

HSSC 6097 Feminist STS As Theory, Method, Practice: Relations And Their Limits
Drawing from historical, anthropological, and ethnographic texts, this course draws from core readings in feminist theory and feminist STS as well as from decolonial and postcolonial perspectives. We will examine feminist ethnographic, historical, and science studies approaches to science, knowledge production, and governance. Course readings will be organized around themes or cases and key questions will include the politics and limits of relation as an organizing analytical, methodological, and political concept.
Not Offered Every Year
1 Course Unit

HSSC 6100 Research Seminar in History of Human Sciences
This concentrated research seminar provides graduate students with time, support, and space to hone their writing skills. Thematically, the seminar closely examines historiographic trends within the history of human sciences - namely the stylistic, methodological, and investigative strategies adopted by prize-winning articles in the field. By carefully dissecting the architecture of these articles, our aim is to identify models that we can use in our own scholarly endeavors and to draft an article with these in mind. Accordingly, a significant portion of the course is devoted to examining archival and primary source resources in the region, to discussing research strategies, and to workshops our work-in-progress. Students can use the course to significantly revise an already written paper or to draft a new paper. The course's overarching purpose is to create the scaffolding necessary for students to produce a substantial research paper in the history of human sciences (broadly conceived) that is potentially publishable as a journal article.
Fall or Spring
1 Course Unit

HSSC 6188 Cold War Science
In this research seminar we will work through some of the literature on the history of science, technology and medicine in the Cold War and explore together relevant archival collections in the Philadelphia region, and digital collections online (particularly oral histories but other sources as well). All history begins with the availability of sources though we want to think creatively about what counts as a source (for example buildings, landscapes, artifacts, museum displays, film, other visual sources).
Not Offered Every Year
1 Course Unit

HSSC 6199 Other Reasons
Postcolonial Theories, building largely on Frankfurt School theorists, have critiqued the totalizing aspirations of what it calls 'Enlightenment Rationality'. Such critiques have also fed a range of critiques of Science. At the heart of such critiques is a rather restricted and plastic idea of Science as a singular, homogenous body of knowledge that has steadily promoted the disenchantment of the world. In this course we seek to destablize this monolithic vision of science by revisiting its plural, heterogeneous histories. The course is particularly interested in exploring the historical entanglements between the sciences and the enchanted world of intangible entities such as spirits, ghosts and gods. The course will be divided into three broad sections. The first will deal with the theoretical critiques of 'Enlightenment Rationality' and 'Science' in postcolonial theory. The second will undertake a detailed and loosely chronological examination of the multifaceted entanglements of science and technology with the paranormal in the 19th and 20th centuries. Finally, the last section will explore the performative aspects of scientific rationality in colonial and postcolonial contexts in a bid to understand the background that led to the postcolonial theorization.
1 Course Unit
HSSC 6247 Experience and Experiment
This course will examine the role of sensory knowledge relative to the creation of scientific knowledge, and to the creation of "scientific knowledge" as a category of knowledge. We will consider the entangled histories of proof, trial, and observation in conjunction with histories of particular and accumulated experience. How can singular phenomena be understood as illustrative of a universal law? How do experience and experiment fit into hierarchies or taxonomies of knowledge at different times, and in different cosmologies? Whose experience or experimentation is authoritative, and what makes it so? Readings will include theoretical and historical perspectives, as well as such topics as medieval and early modern optics and astral science, artisanal knowledge, and exploration.
Fall or Spring
1 Course Unit

HSSC 6288 Capitalism: Theorizing economy in sci & med
What are the relationships between capitalism and the practice and experience of medicine? How have historians and anthropologists theorized capitalism and political economy in accounts of health and medicine? What do such theories account for and what is foreclosed? This research seminar examines theories of capitalism as they are taken up in historical and ethnographic accounts of science, health, healing, and medicine. Exploring how contemporary and classic accounts have sought to analyze and unpack the relationship between economy and health, we will examine how political economic approaches to health and medicine have informed historical and ethnographic accounts of health and illness -- asking, for instance, how theories of neoliberalism have been used to explain health inequalities (and vice versa) -- and will analyze how scholars have linked practices of financialization, speculation, and investment to changing dynamics of health, medicine, healing, and the generation of medical knowledge.
Course time will also be devoted to independent research through which students will develop and write up a research paper on an area of interest related to the course theme.
Not Offered Every Year
1 Course Unit

HSSC 6299 Genetics and Genomics
This course is called "Genetics and Genomics," but we are defining those terms broadly to potentially encompass historical studies of biomedicine, evolution, race theory, biological anthropology, reproduction, agriculture, animal breeding, psychiatry, social sciences, and so on. We are thinking about knowledges of embodiment and what they teach us about social and technical order—about systems, institutions, technologies, hierarchies, theories, practices, networks, and so on. The goal of the semester will be for each student to produce a first draft of a publishable research paper. Many of our readings are calibrated to complement the available archival collections at the American Philosophical Library, the University of Pennsylvania archives, the Academy of Natural History collections, the Chemical Heritage Foundation, Wagner Free Institute of Science, College of Physicians of Philadelphia, Hagley Museum and Library, and collections held in striking distance of Philadelphia, in New York, Princeton, Baltimore, and Washington DC. While APS will be a special of focus of attention, given the remarkable collections there, students should make a special effort to become familiar with the many other resources that are available in the region, some of which have not been the focus of significant historical attention.
Fall or Spring
1 Course Unit

HSSC 6500 Research Seminar im the History of Medicine
This course is focused on comparing and contrasting ethnographic and historical approaches to health and medicine. We will engage ethnographic and historical approaches to health and medicine to explore the methodological, empirical, and theoretical stakes of thinking medicine, disease, and the body across and within disciplines. Taking a methodological and comparative approach, the course will explore ethnographic and historical approaches to such themes as the body, disease, pharmaceuticals, and biomedical knowledge-production in global and historical context. We aim to develop skills and knowledge for critically reading anthropological, historical, and sociological literatures on medicine, the body, and disease. As such, students will develop a research project, which may be in either the history or anthropology of medicine and/or science, or a project, which combines such approaches, utilizing the comparative and methodological frameworks of the course to develop an original analysis on a topic of their choosing.
Not Offered Every Year
1 Course Unit

HSSC 6517 The Lazaretto, the City, and the World: Public Health, Immigration, and Urban Growth, 18th-21st C.
Philadelphia’s Lazaretto quarantine station was built in 1799 to protect the city after a series of catastrophic yellow fever epidemics. In its time, the Lazaretto was a gateway through which goods and people from many regions of the world passed before entering Philadelphia (sometimes after temporary detention). This course uses the Lazaretto as a gateway to the history of American public health, immigration, and urban growth. Our exploration of those histories is not limited to events that happened at the Lazaretto, nor to the period of its quarantine operations (1801-1895), nor even to Philadelphia, but rather uses the very local and very human stories of this unusual site as a point of entry into larger American and global stories. Coursework includes site visits to the Lazaretto and to a variety of local partner institutions, including the Historical Society of Pennsylvania, the Mutter Museum, Puentes de Salud, and Sayre Health Center. Students undertake extensive research projects covering some combination of the course’s themes, including discussions of how historical interpretation can facilitate and enhance public engagement and activism.
Spring
1 Course Unit

HSSC 6500 Research Seminar im the History of Medicine
This course is focused on comparing and contrasting ethnographic and historical approaches to health and medicine. We will engage ethnographic and historical approaches to health and medicine to explore the methodological, empirical, and theoretical stakes of thinking medicine, disease, and the body across and within disciplines. Taking a methodological and comparative approach, the course will explore ethnographic and historical approaches to such themes as the body, disease, pharmaceuticals, and biomedical knowledge-production in global and historical context. We aim to develop skills and knowledge for critically reading anthropological, historical, and sociological literatures on medicine, the body, and disease. As such, students will develop a research project, which may be in either the history or anthropology of medicine and/or science, or a project, which combines such approaches, utilizing the comparative and methodological frameworks of the course to develop an original analysis on a topic of their choosing.
Not Offered Every Year
1 Course Unit

HSSC 6517 The Lazaretto, the City, and the World: Public Health, Immigration, and Urban Growth, 18th-21st C.
Philadelphia’s Lazaretto quarantine station was built in 1799 to protect the city after a series of catastrophic yellow fever epidemics. In its time, the Lazaretto was a gateway through which goods and people from many regions of the world passed before entering Philadelphia (sometimes after temporary detention). This course uses the Lazaretto as a gateway to the history of American public health, immigration, and urban growth. Our exploration of those histories is not limited to events that happened at the Lazaretto, nor to the period of its quarantine operations (1801-1895), nor even to Philadelphia, but rather uses the very local and very human stories of this unusual site as a point of entry into larger American and global stories. Coursework includes site visits to the Lazaretto and to a variety of local partner institutions, including the Historical Society of Pennsylvania, the Mutter Museum, Puentes de Salud, and Sayre Health Center. Students undertake extensive research projects covering some combination of the course’s themes, including discussions of how historical interpretation can facilitate and enhance public engagement and activism.
Spring
1 Course Unit

HSSC 6700 Research Seminar in History of Technology
This graduate seminar provides a structured environment in which each student executes an independent research project. Early class meetings focus on the craft of researching and writing scholarly articles. Later meetings are devoted to discussion of students progress on their research projects. Each student defines their own research topic in the history of technology, subject to the Professor’s approval.
Fall or Spring
1 Course Unit

HSSC 9999 Graduate Independent Study
Available to doctoral students only.
Fall or Spring
1-4 Course Units