

MEDICINE, SCIENCE, AND THE HUMANITIES

<http://krieger.jhu.edu/msh> (<http://krieger.jhu.edu/msh/>)

This is an interdisciplinary, humanities-based major using a cultural and historical context to explore scientific inquiry and the roots of medicine. The medicine, science, and the humanities major is ideal for students who plan to pursue careers in the science and health professions as well as those interested in issues of importance to science and medicine, and students who plan to pursue graduate work in a range of humanities, social science, or professional disciplines.

MSH Major Goals and Objectives

Goal

Medicine, science, and humanities majors will develop an interdisciplinary understanding of the cultural and historical roots of scientific inquiry and medicine, with the ability to apply these precepts to contemporary life.

Objectives

MSH majors will:

- Gain an introductory awareness of theory, interpretation, and methods in a specific humanistic topic related to science and/or medicine
- Acquire and develop skills of interpretation and analysis in a specific humanities discipline by focusing on primary and secondary sources such as literature, imagery, film, artifacts, and commentary
- Acquire fundamental skills of writing and oral presentation, emphasizing clear and logical exposition to enhance student readiness for subsequent graduate school, professional school, or the workforce
- Acquire knowledge and experience in the natural sciences
- Understand the advantages of multiculturalism through intermediate mastery of a language beyond English.

Affiliated Humanities Departments

- Anthropology (<http://anthropology.jhu.edu/>)
- Archaeology (<https://krieger.jhu.edu/archaeology/>)
- Bioethics (<https://bioethics.jhu.edu/education-training/undergraduate-minor/>)
- Classics (<http://classics.jhu.edu/>)
- East Asian Studies (<https://krieger.jhu.edu/east-asian/>)
- English (<http://english.jhu.edu/>)
- Film and Media Studies (<https://krieger.jhu.edu/film-media/>)
- German (Modern Languages and Literatures) (<https://krieger.jhu.edu/modern-languages-literatures/german/>)
- History (<http://history.jhu.edu/>)
- History of Art (<http://arthist.jhu.edu/>)
- History of Science and Technology (<http://host.jhu.edu/>)
- Italian (Modern Languages and Literatures) (<https://krieger.jhu.edu/modern-languages-literatures/italian/>)
- Latin American, Caribbean, and Latinx Studies (<https://krieger.jhu.edu/plas/>)
- Near Eastern Studies (<http://neareast.jhu.edu/>)

- Philosophy (<http://philosophy.jhu.edu/>)
- The Writing Seminars (<http://writingseminars.jhu.edu/>)

Programs

- Medicine, Science, and the Humanities, Bachelor of Arts (<https://e-catalogue.jhu.edu/arts-sciences/full-time-residential-programs/degree-programs/medicine-science-humanities/medicine-science-humanities-bachelor-arts/>)

For current course information and registration go to <https://sis.jhu.edu/classes/>

Courses

AS.145.101. Death and Dying in Art, Literature, and Philosophy: Introduction to Medical Humanities. 3 Credits.

In this course, four essential aspects of the theme of death and dying will be examined: Death and Medicine; Emotional Responses to Death; Burying and Commemorating the Dead; and Conceptions of Death. Specific topics relating to each of these aspects that will be covered include illness and causes of death; prevention of death; suicide; death and grief; burial practices; mourning the dead; public commemoration of the dead; life after death; and death and rebirth. Students will explore these topics from a historical-anthropological perspective with Paul Delnero, a specialist in the history and culture of the ancient Near East (Near Eastern Studies); from a literary perspective, by reading and writing poetry relating to these subjects with the acclaimed poet James Arthur (Writing Seminars); and from a musical perspective, through direct encounters with the music and creative process of the award-winning composer, Michael Hersch (Peabody).

Area: Humanities
Writing Intensive

AS.145.104. Science, Medicine, Media. 3 Credits.

Much of our understanding of science and medicine is filtered through what we casually refer to as “the media”: newspapers, magazines, television shows, films, and electronic social media. But the scientific world relies on its own media to produce and circulate knowledge: from scientific journals and conferences, to agar plates and petri dishes, cloud chambers and electrophoresis gels. Medical technologies from the stethoscope to the echocardiogram likewise mediate the perception of the body in health and disease, and increasingly our own understanding and perception of our bodies and our health is mediated via screens, scans, and images – without which we can hardly imagine ourselves anymore. Students will learn theoretical tools to critically assess the technologies that mediate our knowledge of our own bodies and the broader world, as well as practical tools in media production and visual storytelling (video, podcast, website etc.) to bring these analytics to bear on our broader understandings of science and medicine.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.145.106. Health, Science, Environment. 3 Credits.

Environment has an inexorable effect on human health, and certain human activities have had outsized impacts on the natural world and the ability of forms of life to thrive. This course brings medical humanities, history of science, and science & technology studies into conversation with environmental humanities to ask: how have our conceptions of the natural world emerged, and how have these shaped our understandings of bodies, ecologies, and health outcomes? How do we know and measure the environment and health, and to what effects? How have human and ecological health affected environmental politics? How have writers and artists understood and depicted their environments and environmental questions? Can works of fiction shape ecological transformations? What can we learn from case studies of health and environment in Baltimore and the Chesapeake Bay as well as in global contexts? Course topics will include ecology, epigenetics, toxicity, agriculture and food, radiation, air quality, and more-than-human entanglements.

Area: Humanities, Social and Behavioral Sciences

AS.145.107. Visual Cultures of Medicine, Science, and Technology. 3 Credits.

This course explores the ways in which science, technology, and medicine rely on visual techniques to produce, communicate, and represent knowledge. It brings tools from Cultural Studies, Critical Visual Studies, and Art History into conversation with the medical humanities and Science and Technology Studies (STS), exploring topics such as technologies of visualization, medical imagery, anatomical illustrations, plastic surgery, forensic science, data visualization, and aerial photography among others. Through a convergence of theory and case studies, the course investigates how race and gender play critical roles in the visual cultures of science and traces the ways in which power and expertise are (re)produced through visual representations

AS.145.201. Clues: Unreasoning the Medical Mystery. 3 Credits.

Foundational authors of detective fiction, including Edgar Allen Poe, Arthur Conan Doyle, and Pauline Hopkins, often used medical doctors and themes in their mystery plots. It's no coincidence that medicine and crime fiction share a vocabulary of clues, evidence, and diagnosis. The mystery genre was integrally tied to the rise of scientific medicine as a respected profession. Indeed, classic detective stories are practically propaganda for the scientific method, showing readers how the powerful tools of observation and inference can solve any problem. Over the course of the 20th century, not only doctors, but also psychologists, social scientists and historians adopted the authoritative stance of the detective in constructing or reconstructing facts. However, as we study Sherlock Holmes and his modern proteges, such as TV doctor Gregory House, we will analyze how "medical mystery" narratives can limit our thinking about problems and solutions in medicine. We will consider post-modern detective stories that offer alternatives to the "Holmsian" model for understanding the complex clinical realities of today.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.145.202. Health Care Activism in Baltimore and Beyond. 3 Credits.

National struggles over the right to health care, and over the health needs of marginalized groups, have taken distinctive forms in Baltimore City during the past century. The renowned Johns Hopkins University came to symbolize, for many residents, the power of medicine both to heal and to harm – and the need for community action. This course delves into the archives of local institutions to understand the work of activists and advocates who connected health, medicine, and social justice. We focus on specific sites, from the segregated wards of Johns Hopkins to the People's Free Medical Clinic on Greenmount Avenue, where demands for equity changed the city's health care landscape. Through interdisciplinary readings and conversations with local organizers, we consider how historical memory can serve as a creative resource for the art and politics of the present.

Area: Humanities
Writing Intensive

AS.145.203. Constructing memories: between art and science. 3 Credits.

What is a personal memory? Is it a story or a scene, as if in a film? Is there such a thing as body memory? How tight is the connection between remembering and story-telling? Scientific articles and book chapters in cognitive psychology and the neurosciences can provide some answers to such questions. Two films, "Memento" and "Inside Out" can also help us grasp the impact of major scientific discoveries of how memory works. But our discussions will depend above all on literary and biographical accounts based on the experiences of "rememberers" such as St Augustine, Proust, Woolf, Freud, as well as on cases on amnesia documented by Oliver Sacks, Antonio Damasio, and David Shenk. The latter will help us understand why our ability to engage in mental time-travel is essential to our personal and social existence. Coming out of this course, you will not only have a better comprehension of how autobiographical memory works, you'll have learned also how some of the sharpest scientific and philosophical minds of our times have tried to make sense of this mysterious human capacity.

Area: Humanities

AS.145.204. Graphic! Visualizing Medicine from Textbooks to Comics. 3 Credits.

Visuals play an important role in the history and practice of medicine, from medical textbooks to medical imaging, and from hospital signage and public health posters to comics and graphic novels. This course will examine the visual aspects of the history and practice of medicine by focusing on the rising genre of medical comics and graphic novels, known as "graphic medicine." The course will embed this examination of "graphic medicine" in a wider examination of the various uses of visuals in medicine, the complicated history of class, race and gender in those uses, and how visuals have served different functions in the history and practice of medicine, from assisting medical diagnosis to enabling new forms of medical consumerism, and from facilitating doctor-patient communication to practicing art therapy, as well as presenting visual pathographies and documenting patients' and caregivers' experiences of disease. Through an assortment of primary sources that include medical comics and graphic novels, aided by a variety of secondary sources that embed these narratives in larger issues in the history of medicine, medical anthropology, and the medical humanities, the course will aim to introduce students to some of the most important themes in the field of "graphic medicine."

Area: Humanities

AS.145.205. The Costs of Care: Writing about Illness in America. 3 Credits.

Health care can be expensive for those who receive it and those who provide it. In the United States, patients go into debt while doctors suffer from burnout and nurses rush through understaffed wards. The U.S. has the highest healthcare spending of any wealthy nation, yet suffers comparatively worse outcomes. This seminar brings together social science research with patient experiences that show the human face of the American health care debate. We read the work of scholars, poets, and medical practitioners who reflect on core questions: What should be the government's role in healthcare provision? What alternative models have people in marginalized groups developed when the system fails them? Understanding both failures and successes gives us the tools to build new paths.

Area: Humanities
Writing Intensive

AS.145.215. Representations of Pain and Suffering in Contemporary Culture. 3 Credits.

What does it mean to experience pain or encounter the suffering of another person in our post-truth era? This course explores the changing representation of pain and suffering in contemporary film, fiction, creative non-fiction, science and technology. Through analyses and close-readings of a variety of primary and secondary sources, we will consider the different ways twentieth- and twenty-first-century historical, cultural, and media representations have mediated pain and suffering. Such investigations allow us to understand the workings of pain in the present.

Area: Humanities
Writing Intensive

AS.145.217. Neurofictions: History and Literature of the Mind Sciences. 3 Credits.

Neuroscience has a long way to go from mapping neural connections to a precise account of memory, emotion, and consciousness. But the limits of science have never stopped us from imagining its possible futures. Engaging two centuries of debate in the mind sciences and in western culture at large, this course looks at historical attempts to explain and control human consciousness. By placing each period's scientific texts in dialog with contemporaneous science fiction – from Edgar Allan Poe to Ursula K. Le Guin – we discover how theories about the brain can shape society while at the same time responding to social contexts.

Area: Humanities

AS.145.219. Science Studies and Medical Humanities: Theory and Methods. 3 Credits.

The knowledge and practices of science and medicine are not as self-evident as they may appear. When we observe, what do we see? What counts as evidence? How does evidence become fact? How do facts circulate and what are their effects? Who is included in and excluded from our common-sense notions of science, medicine, and technology? This course will introduce students to central theoretical concerns in Science and Technology Studies and the Medical Humanities, focusing on enduring problematics that animate scholars. In conjunction with examinations of theoretical bases, students will learn to evaluate the methodological tools used in different fields in the humanities to study the production and circulation of scientific knowledge and the structures of medical care and public health. This problem-centered approach will help students understand and apply key concepts and approaches in critical studies of science, technology, and medicine.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.145.220. Health, Medicine, Gender, and Sexuality. 3 Credits.

This course invites students to take the perspective of gender and sexuality on health and medicine. In this course, we do not see gender and sexuality as a separate domain of health. Instead, we will learn how a gender perspective is in fact crucial for critically exposing the ways in which medicine is interpenetrated by social life and by law. For example, what technologies and discourses constitute “the normal”? How is sexuality braided into disease surveillance? How do we understand the lawfare on the terrain of reproductive rights? What aspects of disease are suppressed in dominant forms of knowledge production, due to the undervaluation of gendered forms of experience? We will take cases involving HIV/AIDS; reproductive justice and rights; poverty, marginality and queer kinship; and household patterns of care.

Area: Humanities, Social and Behavioral Sciences

AS.145.222. Bodies in Flux: Medicine, Gender, and Sexuality in the Modern Middle East. 3 Credits.

This course examines how bodies, genders, and sexualities in the modern Middle East, from the nineteenth century to the present, have been shaped and represented via changing and competing discourses. Through a variety of historical, ethnographic, sociological, media, and literary readings, the course investigates dynamic representations of bodies in flux: colonized bodies, medicalized bodies, gendered bodies, sexualized bodies, (re)productive bodies, aging bodies, and bodies in revolt. The course pays special attention to science, technology, and medicine in their interaction with cultures, laws, and religious practices. Some of the topics covered include analyzing histories of and discourses on gender, sexuality, health and disease, reproduction, genital cutting, and gender-based violence.

AS.145.303. Research in the Medical Humanities: A Practical Introduction. 3 Credits.

This seminar is designed to prepare students for an extended interdisciplinary writing project, such as an honor's thesis or an undergraduate research proposal. The first part will be devoted to establishing or consolidating skills in research, in methods, and in approaches specific to the medical humanities. Class meeting will involve different formats and types of preparation: studying examples of writing in different domains related to MSH, visits of specialists (e.g. librarians and authors), preparing a proposal to be presented in a workshop, and a well-documented capstone project outlining a proposal. You'll be asked to submit at regular intervals written results of your work in progress and you must be prepared as well to present your results orally at different important points in our unfolding semester.

Area: Humanities
Writing Intensive

AS.145.305. Lives in Medicine: Exploring the Personal Writing of Patients and Practitioners. 3 Credits.

The personal accounts of patients and practitioners offer a rich exposure to human experience in medicine. What is it like to be a patient, to be sick or to face the threats or limits that illness presents? What is it like to be a doctor or nurse in this world of illness? In this course we will read such accounts as published in book form, discuss them in a seminar setting and write about them. We will select a small number from the thousands of such publications to introduce the student to this unique genre, emphasizing reading, writing and group discussion.

Area: Humanities
Writing Intensive

AS.145.306. Home, Health, Labor, and Land: Medical Institutions in the City. 3 Credits.

The twentieth-century decline of manufacturing in American cities coincided with the rise of powerful healthcare institutions as major employers and drivers of urban development. This course explores the politics of race, class, and health as they pivoted around this major economic transformation. We examine the growth of Johns Hopkins in East Baltimore and its displacement of residents, met by the organizing efforts of workers and community members. Core texts illuminate the structural forces underpinning urban development and inequality across many post-industrial cities, as expanding healthcare infrastructure paradoxically coincided with worse health outcomes. Class time includes seminar-style discussion, archival research, and visits to local sites.

Area: Humanities, Social and Behavioral Sciences

AS.145.310. A Noble Profession? Doctors as Social and Political Actors. 3 Credits.

Medicine is a profession known for its ethical code of conduct—a code that is imbued with an ethos of neutrality and impartiality. However, real life shows us that doctors do not occupy a special moral class, but are rather members of social and political communities, citizens with grievances, political affiliations and loyalties, and are often subject to many social and political influences around them. This course will examine how doctors' political choices shape their medical practice, and how their medical practice—especially their temporally and spatially privileged access to bodily suffering and loss of life—shapes in turn their political choices. It investigates the roles of doctors, not simply as technical experts, but as social and political actors informed by technical expertise among other factors. Relying on histories, ethnographies, memoirs and even works of fiction, this course will explore narratives of doctors' social and political engagement in the US and around the globe.

Area: Humanities, Social and Behavioral Sciences

Writing Intensive

AS.145.312. Narratives of Bias in Healthcare. 3 Credits.

What are the ways in which bias informs and infiltrates healthcare? What is the relationship of bias with power and injustice, across medical training, patient care, and the production of medical knowledge? This course will grapple with these questions through interpretation and discussion of works of visual art, fiction, non-fiction, and popular media that center the voices of patients and healthcare providers. We will tie a direct link to healthcare systems and patient outcomes by applying a similar critical and interpretive lens to primary sources from scientific and medical literature. Combining these conversations with discussions of healthcare practices, we will explore a broad survey of themes, including cognitive biases and decision-making in patient care, epistemic injustice, bias in artificial intelligence, and bias in medical language and the electronic health record. Students will be introduced to identifying and navigating narratives of bias in healthcare, with an emphasis on applying critical thinking to the systems that propagate and dismantle bias in healthcare.

Area: Humanities

Writing Intensive

AS.145.320. British Visual Culture and Medicine. 3 Credits.

In this class, we will reflect on the ethical, gendered, and societal implications of the creation and exchange of British medical imagery. What purpose did this visual culture serve for artists, practitioners, and patients? How are we meant to look at these images today, outside of their original contexts? We will examine a range of images and objects from Britain, expanding our definition of "art" and interrogating the colonialist roots and origins of artistic and medical material. Our objects of study will extend from oil paintings of renowned physicians to diagnostic photographs of unnamed patients and from prints of gynecological dissection to satirical cartoons of "quack" doctors. We will look not only at how practitioners have had their patients depicted, but also at how those with illnesses or with disabilities have taken back their bodily power to portray themselves. Questions of portraiture, likeness, and consent will be constant themes throughout this course, guiding students' development of ways of thinking critically and writing thoughtfully about medical images.

Area: Humanities

Writing Intensive

AS.145.321. Music as Medicine. 3 Credits.

Music and medicine have long been understood as deeply intertwined technologies capable of reshaping human bodies and environments. We will explore some of the visible (as well as forgotten) connections between these domains, and ponder some questions along the way: How was music (and dancing) used to cure spider bites and other maladies? What is the best music to accompany the medicinal use of hallucinogenic drugs? How is the use of lullabies revolutionizing pre- and postnatal care for mothers and infants? What can we learn from the common origins of medical vs musical instruments? "Music as Medicine" will feature diverse perspectives of guest musicians and practitioners and offer hands-on engagement with archival sources and material objects.

Area: Humanities

Writing Intensive

AS.145.350. MSH Research Capstone. 3 Credits.

The Research Capstone seminar prepares students to undertake original extended research in the medical humanities and science studies. The course will help students synthesize the interdisciplinary knowledge upon which the Medicine, Science, and the Humanities (MSH) major is built. Students will have the opportunity to form research topics, devise and execute research plans, write a research grant application, and share their work with the class. The course is aimed at MSH juniors seeking to create Honors projects, though the course is open to any student wishing to learn or enhance research skills.

AS.145.360. Incarceration and Health: Critical Perspectives. 3 Credits.

Can care exist in a space of punishment? Institutions of incarceration are inherently spaces of violence and social control and, in the U.S.'s current context of mass incarceration, racial oppression. Yet prisons, jails, and detention centers are required to provide individuals access to health care. How can we understand this convergence of care for the body and psyche with multiple forms of carceral violence? This course will examine modes of health and health care inside institutions of incarceration as they are situated within broader socio-political contexts that shape society's over-reliance on incarceration as a means of social and racialized control. Drawing on history, anthropology, sociology, legal theory, critical race studies, and public health, the course will explore the everyday realities inside institutions of incarceration as they relate to suffering and care and how those are connected to policies and processes of subjugation outside the institutions' walls. Case studies for examining these relationships include pregnancy, COVID-19, addiction, and mental illness behind bars. Students will engage with concepts such as disciplinary power, biopower, carceral and anti-carceral feminism, theories of care, medical abolition, and dual loyalty. While the course will primarily focus on the U.S. context, we will also draw comparisons to non-U.S. settings. Throughout the course we will seek to understand how institutions of incarceration are not, as popularly understood, isolated places "elsewhere," but implicitly porous with so-called free society—and therefore as exemplars for understanding the connections among health, inequality, and state institutions.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.145.502. Medicine, Science & the Humanities Internship. 1 Credit.

An internship in Medicine, Science & the Humanities approved by the director of the program.

Prerequisite(s): You must request Independent Academic Work using the Independent Academic Work form found in Student Self-Service: Registration, Online Forms.

Area: Humanities, Social and Behavioral Sciences

AS.145.510. Medicine, Science & the Humanities Independent Research. 1 - 3 Credits.

This course is for students in the Medicine, Science & the Humanities doing independent research. Course can be taken up to 3 credits with approval from the director.

Prerequisite(s): You must request Independent Academic Work using the Independent Academic Work form found in Student Self-Service: Registration, Online Forms.

AS.145.511. Medicine, Science & the Humanities Independent Research. 1 - 3 Credits.

This class is for the MSH majors completing their research project. Instructor approval required.

Prerequisite(s): You must request Independent Academic Work using the Independent Academic Work form found in Student Self-Service: Registration, Online Forms.

Area: Humanities, Social and Behavioral Sciences

AS.145.516. MSH Honors Thesis. 1 - 3 Credits.

This class is for the MSH majors completing their honors thesis. Instructor approval required. This course can be taken for up to 3 credits with instructor approval.

Prerequisite(s): You must request Independent Academic Work using the Independent Academic Work form found in Student Self-Service: Registration, Online Forms.

Cross Listed Courses**Anthropology****AS.070.381. Addiction: An anthropological approach to substance dependence in the U.S.. 3 Credits.**

This course offers an advanced examination of the interpersonal, institutional, and societal dimensions of addiction in the United States. The course will be divided into four sections. This first section tracks the evolution of addiction from a moral problem of the will to a formal, biomedical disease category over the course of the 20th century. This section introduces the problem of addiction within the societal context of the United States, exploring questions of political governance, social control, and issues of race, class, and gender inequality. It asks the question: what is the social life of addiction in the United States? The second section of the course will ground these broad inquiries in the urban U.S. by examining how addiction overlaps with mass incarceration, poverty, and homelessness in the U.S. city. Over the course of this section, we will engage and reframe the crack crisis of the late 20th century. The third section of the course will shift our attention to the rural United States and how addiction overlays unemployment, social isolation, and the urbanization of the U.S. Through this social and institutional lens, the third course section will explore the contemporary opioid crisis and draw comparisons with the crack crisis. The course concludes with an examination of the personal dimensions of the addiction experience and explores substance dependence in the realms of kinship, love, and personal understandings of recovery.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

Classics**AS.040.152. Medical Terminology. 3 Credits.**

This course investigates the Greek and Latin roots of modern medical terminology, with additional focus on the history of ancient medicine and its role in the development of that terminology.

Area: Humanities

AS.040.216. Exploring the Ancient Astronomical Imagination. 3 Credits.

This course takes us on an exploratory journey through the ancient astronomical imaginary. We will focus on ancient Greek and Roman ideas about the structure of the cosmos, the substance and nature of the stars, the Earth's place and role in the universe, ancient attempts to map the stars, and ancient beliefs about the significance of cosmic phenomena for events in the human world. The course will culminate in the extraordinary ancient tradition of lunar fictions, which are our earliest imaginative accounts of life on other worlds. Come join us for a voyage to the stars!

Area: Humanities
Writing Intensive

Comparative Thought and Literature

AS.300.334. Love and its maladies. 3 Credits.

Much of what we know about love and desire we owe to fiction's ability to evoke these experiences. Consider for example that the publication, in Germany, of *The Sorrows of Young Werther* inspired young men across Europe to dress and behave just like this lover. Just as nowadays film and television represent, as well as mold our conceptions of love, love-stories from the eighteenth-century onwards have given shape to gendered subjectivities in ways that still matter now. As, intriguingly, illness is a recurrent theme in many modern love stories, we will be prompted to decipher signs and symptoms in the bodies of mind of our protagonists. Why is it that in Western cultures, passion is tightly interwoven with a landscape of pain, suffering, and disease? In studying texts that represent major aspects of a romantic sensibility, we are indeed invited to trace the steps of a history of the body increasingly defined by gender and by medical knowledge. The readings for this class (all available in English) include: Austen, *Persuasion*; Balzac, *The Unknown Masterpiece*; Barthes, *Lover's Discourse*; Goethe; *The Sorrows of Young Werther*; Mann, *Death in Venice*; Winterson, *Written on the Body*.

Prerequisite(s): Students who have taken AS.001.196 are not eligible to take AS.300.334.

Area: Humanities

AS.300.347. Imagining Climate Change. 3 Credits.

Climate change poses an existential threat to human civilization. Yet the attention and concern it receives in ordinary life and culture is nowhere near what science tells us is required. What are the causes of this mismatch between crisis and response? What accounts for our collective inability to imagine and grasp this new reality, and how can it be overcome? In pursuit of these questions, we will pair literary works and films with texts from politics, philosophy, literary theory, and religion, that frame climate change as a fundamental challenge to our ways of making sense of the human condition.

Area: Humanities

AS.300.402. What is a Person? Humans, Corporations, Robots, Trees. 3 Credits.

Knowing who or what counts as a person seems straightforward, until we consider the many kinds of creatures, objects, and artificial beings that have been granted—or demanded or denied—that status. This course explores recent debates on being a person in culture, law, and philosophy. Questions examined will include: Should trees have standing? Can corporations have religious beliefs? Could a robot sign a contract? Materials examined will be wide-ranging, including essays, philosophy, novels, science fiction, television, film. No special background is required.

Area: Humanities

AS.300.618. What is a Person? Humans, Corporations, Robots, Trees.. 3 Credits.

Knowing who or what counts as a person seems straightforward, until we consider the many kinds of creatures, objects, and artificial beings that have been granted—or demanded or denied—that status. This course explores recent debates on being a person in culture, law, and philosophy. Questions examined will include: Should trees have standing? Can corporations have religious beliefs? Could a robot sign a contract? Materials examined will be wide-ranging, including essays, philosophy, novels, science fiction, television, film. No special background is required.

Area: Humanities

Writing Intensive

Earth & Planetary Sciences

AS.271.306. Food, Energy, Water, and Power in the Global South: An Interdisciplinary Approach. 4 Credits.

Worldwide, there has been rapidly growing interest in research, education, and discourse around the Food-Energy-Water-Nexus (FEW-Nexus). This course will provide students with a framework to describe, analyze, and assist in addressing these complex interrelationships associated with coupled human-natural systems at local, regional, and global scales. The course integrates physical and biological sciences, social and behavioral sciences, humanities, and engineering while covering broad frameworks such as ecosystem-based approaches, critical historical and ethnographic analysis, decision science, and relevant research methods. The course culminates in a funded field work experience at several sites in Brazil. Admission by permission of instructors.

First Year Seminars

AS.001.101. FYS: The Hospital. 3 Credits.

Johns Hopkins invented the modern hospital along with modern medical education. This seminar will explore the history of the hospital from its monastic origins to its current form, with particular attention to how hospital design has reflected and reinforced ways of thinking about health, disease and medical treatment. We will also consider specialized hospitals and clinics, for the mentally ill, for particular diseases, for women and children, among other topics.

Area: Humanities, Social and Behavioral Sciences

AS.001.102. FYS: Japanese Robots. 3 Credits.

Japan is a world leader in biomimetic robotics. Japanese society enthusiastically embraces robotic nurses, robotic guides, robotic waiters, robotic pets, and even robotic girlfriends. What are the origins of the Japanese love of robots? What role did robotics engineers play in creating the image of loveable robots? What societal fears do Japanese robots assuage and what hopes do they foster? In the course of the semester, students will learn about the evolution of Japanese robotics, and explore the implications of this evolution to humans' relationship with robots. While learning about Japanese robots, students will acquire skills necessary for college-level education, including how to write an email to a professor, how to organize and manage digital tools, how to navigate the information resources, and how to develop, complete, and present research projects. This course will equip students with skills essential to their success in college and beyond.

Area: Humanities, Social and Behavioral Sciences

AS.001.107. FYS: Thinking and Writing Across Cultures - East Asia and the West. 3 Credits.

In this First-Year Seminar, we will explore what it means to think and write across multiple cultures in the contemporary world. What do we gain and/or lose when we think and write crossing cultural boundaries? How do knowledge and experience of two or more cultures help us think and act critically, creatively, and ethically? What does plurality of cultures mean to universal discourses such as science and technology? How can cultural differences help or hamper our efforts to tackle global problems like climate change? These are some of the guiding questions that we will investigate together in this course by examining novels, essays, autobiographies, travelogues, philosophical writings, and films that engage with multiplicity of cultures between East Asia – especially China, Japan, and Korea – and the West as well as within East Asia.

Area: Humanities

AS.001.108. FYS: Heart Matters. 3 Credits.

To the human imagination, the heart is more than a muscle and thumping pump keeping us alive. From the Renaissance to the present, writers have helped us make sense of our bodies, in health and in illness or pain. The history of the heart, meanwhile, starts in Antiquity, where it shapes our beliefs about life. One of our aims will be to trace the historical, cultural, and subjective meanings our minds have given to this “sublime engine.” The other will be to discover how our scientifically inquisitive minds, backed up with technical skills and technological devices such as the stethoscope, have found new ways to take care of this volatile organ. Our materials will involve a constellation of texts in medical history, modern fiction in the form of poems and short-stories, and recent scientific prose on such topics as heart transplants, heart-monitoring implants, xenotransplants as well as heartbreaks.

Area: Humanities

AS.001.123. FYS: Wired to Read: the Science and the Art. 3 Credits.

Trying to make sense of words I have written. But how do we do we do it? How do mere shapes and lines on the page suddenly begin to mean something? Is our brain wired for reading? Apart from our eyes, are other parts of the body involved? When did humans start to write and read? These are the kinds of questions we'll pursue. This First-Year Seminar will explore two distinctive perspectives: one literary, the other is scientific. We'll divide our attention between the study of chapters and articles that present scientific findings about how we read and a practical exploration of a novel. Literary works tax our brains in multiple ways and our example will show why and how. Maylis de Kerangal's medical fiction *The Heart* will serve as our case study. The book and scenes from its adaptation for the screen will enable us to experience the power of fiction as it transports us into an enhanced reality made of images and words. We'll see how written words are able to redirect our attention in ways that make us more perceptive about a "real" world of human interactions. Slowed down and staged in the book, the life-stories, fateful accidents, and heroic gestures that make up a medical universe can paradoxically bring us closer the life and death decisions that begin in the ER.

Area: Humanities

AS.001.139. FYS: Medicine and Cinema. 3 Credits.

This First-Year Seminar explores the intersection between medicine and film, looking at how medicine, medical providers, and narratives of illness and health are depicted in cinematic works. Some of the questions that the seminar pursues are: What are some of the medical issues that filmmakers focus on? How did the cinematic portrayal of medicine change over time? What role do these films play in shaping public perceptions of medicine, medical providers, and medical institutions? By watching a number of films throughout the semester and reading some accompanying texts, students will develop deeper knowledge both of the history of medicine in cinema and the tools that cinema offers to the telling medical stories.

Area: Humanities

AS.001.181. FYS: Introduction to Lives in Medicine - Exploring the Experience of Patients and Practitioners. 3 Credits.

Beyond scientific and technological advances in the classification and treatment of disease, beyond complex hospital and health delivery systems, beyond the immensity of the medical world itself there is a human world of experience that tells its stories in various ways. Patients, doctors, nurses and related healthcare providers inhabit this shared environment of intense personal experience, giving rise to various accounts: memoirs, autobiographies, blogs, websites and interviews that provide us with a rich resource for understanding the culture of medicine and the world of the sick. In this First-Year Seminar, we explore some of these accounts by reading from books and personal memoirs of patients and practitioners, looking at films and photographs, listening to interviews and discussing what we learn from such accounts and how they shape our understanding of the many worlds of health and medicine. As a complement to the scientific study of human biology and disease, this seminar offers the incoming student an introduction to a broad literacy in medicine, disease and human biology, focusing on the importance of individuals by exploring the records of their experiences and the ways in which they are made available to us.

Area: Humanities, Social and Behavioral Sciences

AS.001.190. FYS: Poisons! A History. 3 Credits.

Poisons aren't what they seem. Sometimes they look like food. Sometimes they look like drugs. From cinnabar to cinnamon, from dragon blood to goat bezoars, poisons result from careful human construction, collection, and creation. They are objects of early chemistry. Far from killing us, poisons have been central to the history of medicine. Physicians in the past and present monitor dosage, drug combination, and drug preparation to mitigate poison toxicity while still maintaining drugs' therapeutic potencies. Knowledge about poisons, in other words, quietly undergirds most of human civilization. Poisons are what keep us alive. Or not. This First-Year Seminar comes to understand poisons in three ways. First, it takes on individual poisons (mercury, opium, among others) to introduce major themes in the history of science and science studies. Second, it engages with global perspectives in the history of medicine to understand how poisons were deployed, refined, and neutralized around the world. Third, it introduces frameworks in the philosophy of chemistry to analyze the social, conceptual, and practical demands on empiricism. Together, these three perspectives will shift students' perspectives on poisons from objects that kill to critiquing them as objects that are intimately tied to ideas of cure.

Area: Humanities, Natural Sciences

AS.001.223. FYS: Automating Care: Digital Technology and the Future of Medicine. 3 Credits.

Artificial intelligence, machine learning, big data, and robotics are central to futuristic visions of fast, optimized medical treatment. This First-Year Seminar examines technology's promises: who benefits from, and who pays the price for, the automation of care in a profit-driven system? How does the clinical goal of improving health relate to industry demands for cost savings and revenue growth? Automation can entrench inequality, both for patients and for healthcare workers. Authors such as Ruha Benjamin, Frank Pasquale, and S. Scott Graham guide us beyond the “promises and perils” to a critical understanding of how technology can become geared into systems of racial capitalism.

History**AS.100.291. Medicine in an Age of Empires, 1500-1800. 3 Credits.**

How did medicine emerge as a distinctive body of knowledge and a profession in the early modern period? The answers lie in the histories of disease, empire, and global commerce.

Area: Humanities, Social and Behavioral Sciences

AS.100.319. History of American Reproductive Politics. 3 Credits.

This course examines reproductive politics in the United States from the colonial era to the present. Topics include contraception, abortion, and sterilization, emphasizing the impact of gender, class, and race.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.100.396. The Gender Binary and American Empire. 3 Credits.

This seminar explores how the sex and gender binary was produced through US colonialism since the nineteenth century. Topics include domestic settler colonialism, as well as Hawaii, the Caribbean, and Asia.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

History of Art**AS.010.208. Leonardo da Vinci: The Renaissance Workshop in the Formation of Scientific Knowledge. 3 Credits.**

How does a notary's son trained as a painter come to claim expertise in the construction of machines and acquire knowledge of the principles of optics, human anatomy, the flight of birds, the dynamics of air and water? The course will focus critically on the myth of Leonardo's singularity and explore his achievements with regard to the artisanal culture of his time, as well as the problems of authority in the recognition of artisanal knowledge as scientific discovery.

Area: Humanities

AS.010.212. Mirror Mirror: Reflections in Art from Van Eyck to Velázquez. 3 Credits.

Explores the different ways Early Modern painters and printmakers incorporated mirrors and optical reflections into their works for the sake of illusion and metaphor, deception and desire, reflexivity and truth-telling. Connecting sense perception and ethical knowledge, embedded mirror images often made claims about the nature of the self, the powers of art, and the superiority of painting in particular.

Area: Humanities

AS.010.235. Art, Medicine, and the Body: Middle Ages to Modernity. 3 Credits.

This course explores seven centuries of fruitful collaboration between physicians and artists, uncovering the shared discourses, diagnostic techniques and therapeutic agendas that united the art of picture-making with the art of healing. Topics include the origin and development of medical illustration; the long, cross-cultural history of the therapeutic artefact; the anatomical investigations of Renaissance artists such as Leonardo and Michelangelo; depictions of bodily pain and disease in the art of Matthias Grünewald and psychosomatic syndromes like melancholy in the work of Albrecht Dürer; the spectacularization of the body in Enlightenment science and the ethics of medical specimen display today – all in order to bring the complex intersections of the history of medicine and the history of art into view.

Area: Humanities

AS.010.350. Body and Soul: Medicine in the Ancient Americas. 3 Credits.

This course examines curative medicine in the Americas through its visual culture and oral histories. Philosophies about the body, health, and causes of illness are considered, as are representations of practitioners and their pharmacology. Case studies are drawn from across the Americas (Aztec, Moche, Aymara, Paracas, American SW). Collections study in museums, Special Collections.

Area: Humanities

History of Science, Medicine, and Technology**AS.140.105. History of Medicine. 3 Credits.**

Course provides an introduction to health and healing in the ancient world, the Middle Ages, and the Renaissance. Topics include religion and medicine; medicine in the Islamic world; women and healing; patients and practitioners.

Area: Humanities, Social and Behavioral Sciences

AS.140.106. History of Modern Medicine. 3 Credits.

The history of medicine and public health from the Enlightenment to the present, with emphasis on ideas, science, practices, practitioners, and institutions, and the relationship of these to the broad social context.

Area: Humanities, Social and Behavioral Sciences

AS.140.149. Histories of Public Health in Asia. 3 Credits.

This class explores histories of diseases, epidemics, and therapeutics in Asia. We will examine the rise of public health and the nation-state and the social and political factors that guided the outcomes of public health campaigns. Who was helped? Who was harmed? Why? How? To answer these questions, we will compare both top-down and bottom-up movements to understand questions of access and ethics in different communities—ethnic, racial, and religious—and the handling of different diseases that were acute, infectious, and chronic.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.228. Epidemic!: Diseases that Shaped our World. 3 Credits.

In this course, we will look at a number of key epidemic diseases in the pre-modern and modern world, from Black Death to COVID-19, and investigate how it affected medical thought and practice, as well as political, social and economic lives. We will pay special attention to how these diseases spread and how they affected and were influenced by questions of race, gender, sexuality and colonialism.

Area: Humanities, Social and Behavioral Sciences

AS.140.231. Health & Society in Latin America & the Caribbean. 3 Credits.

Medical practice is complex in Latin America and the Caribbean. Most countries in the region have universal healthcare; yet, the quality of clinical services varies widely, and is influenced by degrees of incorporation into—or marginalization from—social power structures. Many people take their health into their own hands by supplementing biomedicine with plant based remedies as well as religious and spiritual services. This course will interrogate the history and contemporary relevance of healthcare in Latin America and the Caribbean, with particular interest in how medicine intersects with colonialism, slavery, capitalism, neo-colonialism, grassroots revolutionary movements, the Cold War, and neoliberalism. Drawing on films, visual and performance art, and music, students will consider the ways in which race, gender, indigeneity, ability, class, and nation have affected people's experiences with medical practice. Informed by postcolonial and decolonial scholarship, we will also examine why Latin America and the Caribbean have become "laboratories" for the production of medical knowledge, and importantly, how that knowledge was created by indigenous, enslaved, and migrant people as well as professionals. Finally, we seek to understand individual health problems in relation to the social and political determinants of health. As such, the course prompts students to reflect on why healthcare professionals—in the United States and abroad—would benefit from historically-informed communication with patients and their communities. This is a discussion-based seminar that requires active participation. There are no exams. The course does not assume any previous knowledge of the history of medicine or Latin American history.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.238. A History of the Mind Sciences. 3 Credits.

This class offers a critical history of the mind sciences, examining how fields such as neuroscience, psychology, and psychiatry developed through a variety of empirical methods and technologies. It opens a window into how scientists, philosophers, medical practitioners, writers, patients, and physiologists constructed theories of cognition, sensation, and the emotions. What were the challenges in locating, opening, and reading the mind? Why? How? To what ends did these impulses serve? The core reading for this class will derive from the history of medicine, history of science, science studies, disability studies, medical anthropology, as well as recent publications in the mind sciences. Students will learn about the history of using animal models to inform human cognition and the consequences of sensations that failed to fit neat categories of sensing, for instance. We will also explore the relationship between behaviorist and cognitive sciences, the rise of fMRI, the Diagnostic and Statistical Manual of Mental Disorders (DSM), and psychopharmaceutical randomized control trials. We will further interrogate the politics of knowing the mind across centuries of experimentation and contemplation in different historical and cultural contexts.

Area: Humanities, Social and Behavioral Sciences

AS.140.245. Biology and Society in Asia. 3 Credits.

What major knowledge traditions about life's generation and function have taken shape in Asia that continue to shape our contemporary world? How have they fared in encounters with Western knowledge traditions? How have modern biology, biotechnology and biomedicine developed in Asia in recent years within distinct geopolitical contexts? This course addresses these questions with selected historical cases from China, India, Japan, Korea and selected Southeast Asian countries. It first introduces concepts and frameworks of major non-Western knowledge systems about life such as yin-yang and five phases and examine how religions, politics, and cross-cultural encounters impacted these systems, their evolutions or replacements. Then the class will examine the political, material, cultural and institutional contexts of more recent development in the life sciences in Asia. Class activities include lectures, discussions, research seminars, a final research project, and possible conversations with visiting professors and field trips.

Area: Humanities, Social and Behavioral Sciences

AS.140.301. History of Science: Antiquity To Renaissance. 3 Credits.

The first part of a three-part survey of the history of science. This course deals with the origins, practice, ideas, and cultural role of scientific thought in Graeco-Roman, Arabic/Islamic, and Medieval Latin/Christian societies. Interactions across cultures and among science, art, technology, and theology are highlighted.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.302. Rise Of Modern Science. 3 Credits.

This course surveys major scientific developments from the mid-18th century to the present, with a focus on the physical and the life sciences. Topics include the chemical "revolution", evolution by natural selection, DNA, military science, and contemporary biotechnology. Throughout, the course highlights the institutional context of scientific work. It also situates scientific developments within their broader techno-social context, paying special attention to the political, economic, and/or technological factors that enabled these developments in the first place, and to the social, political, and environmental impacts that accompanied the rise of modern science.

Area: Humanities, Social and Behavioral Sciences

AS.140.312. The Politics of Science in America. 3 Credits.

This course examines the relations of the scientific and technical enterprise and government in the United States in the 20th and 21st centuries. Topics will include the funding of research and development, public health, national defense, etc. Case studies will include the 1918 Spanish influenza epidemic, the Depression-era Science Advisory Board, the founding of the National Science Foundation and the National Institutes of Health, the institution of the President's Science Advisor, the failure of the Superconducting Supercollider, the Hubble Space Telescope, the covid pandemic, etc.

Area: Humanities, Social and Behavioral Sciences

AS.140.316. Minds and Machines. 3 Credits.

Is the mind identical to the brain? Is the mind (or brain) a computer? Could a computer reason, have emotions, or be ethically culpable? How have computers changed our minds? This course examines such questions philosophically and historically. Topics include early AI research, computationalism, connectionism, 4E cognitive science, simulation theory, and the Singularity.

Area: Humanities, Social and Behavioral Sciences

AS.140.317. The Hydrologic Sphere: Histories of Water in the Colonial and Postcolonial World. 3 Credits.

Water supplies are becoming scarcer globally due to climate change. We use clean water—fresh and salt—in a variety of ways that provide comfort, stability, and health, making it one of the most valuable commodities on Earth. While countries in the Global North are beginning to see more frequent and lengthier droughts, those in the Latin America, Africa, and South Asia have long struggled over how to distribute and use their clean water supplies. This class will examine how colonialism and its far-reaching effects have created an environment of scarce water supplies in many areas of the world. Water access is difficult to achieve, but for much of the Global South, the colonial period helped craft the problems we see today. This class will ask what colonial and postcolonial technologies' construction and use teach us about equitable clean water distribution, how social and cultural identities influence water supplies and use, and why water has been such an important element—and commodity—in our world, especially where Europeans settled and oppressed local populations.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.321. Scientific Revolution. 3 Credits.

How did the Western understanding of nature change between 1500 and 1720? We'll study the period through the works of astronomers and astrologers, naturalists and magi, natural philosophers and experimentalists, doctors and alchemists & many others.

Area: Humanities, Social and Behavioral Sciences

AS.140.327. Science and Utopia. 3 Credits.

This seminar will explore the complex interaction between science, technology and utopian/dystopian thought from the late nineteenth century. Major utopians will include Bellamy, H.G. Wells, Mark Twain, Frank Lloyd Wright, Aldous Huxley, George Orwell, Sinclair Lewis, B.F. Skinner, Margaret Atwood, and Walt Disney.

Area: Humanities, Social and Behavioral Sciences

AS.140.329. Women, Health, and Medicine in Colonial and Antebellum America. 3 Credits.

This class will examine the history of women's health and medicine in America from the 17th century to the mid-19th century, a period in which settler colonialism and the trans-Atlantic slave trade mixed European, Indigenous American, and African people and belief systems, resulting in diverse healing practices and understandings of the body and gender. Major themes addressed in the course include reproductive health, domestic and "alternative" medicine, as well as enslavement, racialized medicine, poverty, disability, and sexuality.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.333. The Idea of the Artificial Human in History. 3 Credits.

This course will explore the ancient idea of the artificial human ("human-made human") from the Renaissance to the 21st century, focusing on its relationship to the prevalent scientific/philosophical/religious views of the time. Readings will include fictional classics such as Mary Shelley's *Frankenstein*, H.G. Wells's *Island of Dr. Moreau*, and Karel Capek's *R.U.R.*, as well as essays by scientists and philosophers. Readings, films, discussions, lectures.

Area: Humanities, Social and Behavioral Sciences

AS.140.334. Science, National Security, and Race: the US-East Asia Scientific Connections. 3 Credits.

America's scientific connections with China, its East Asian allies, and the rest of the world are heavily shaped by geopolitics nowadays. This course traces the historical root of these connections and invites you to explore the movement of knowledge and people, the omnipresence of the state and concerns about national security, and the career of Asian American students and scientists. It aims to equip you with a set of analytical tools to understand the complicated dynamics of the transnational scientific community between America and East Asian countries. As nationalism regains momentum globally, it is time to look back on history and think about how we should approach the increasingly tumultuous world!

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.335. Photography in Science and Medicine (19th Century-Present). 3 Credits.

How did photography change science and medicine, and vice versa? This course explores how and why photography and related imaging techniques became central to a broad variety of fields of science and medicine, ranging from anthropology and astronomy to embryology, nuclear physics, and radiology. It also considers how these techniques were created in the first place and to what extent they affected the standing of photography as an "art-science." Central themes will include (among others) the status and objectivity of photographic evidence; the historical relationships between technical, scientific, and artistic change; the role of photography in disseminating scientific and medical knowledge and (mis)information; the racial and gender biases of scientific and medical photography; and photography's use as a tool of scientific exploration, measurement, and surveillance. Students will be developing their own research projects in consultation with the instructor.

Area: Humanities, Social and Behavioral Sciences

AS.140.336. History of Mental Healthcare in the United States. 3 Credits.

In recent decades, much has been done in the United States to destigmatize mental illness and incorporate psychiatric services into broader systems of healthcare and welfare. As clinicians, policy makers, social scientists, activists, and other stakeholders have collaborated to promote mental health and reintegrate people with behavioral disorders into society, they have often contrasted their efforts with those made in the past, portraying community-based approaches as more efficacious and humane. Narratives like these, however, deemphasize many important continuities in the history of American psychiatry. In this discussion-based course, students will explore how concerns about citizenship and social control have shaped the organization and provision of mental healthcare in the United States from the early nineteenth century to the present day. They will also complete various assignments designed to hone their ability to evaluate historical arguments, conduct independent and collaborative research on primary sources, and communicate the results of their scholarship to professional and lay audiences.

Area: Humanities, Social and Behavioral Sciences

AS.140.338. Unsafe America: Accidents, Disasters, and Society, 1800–2020. 3 Credits.

According to the latest data from the National Safety Council, accidents cause over 173,000 deaths and 48,300,000 injuries per year across the United States. Since the nineteenth century, accidents ranging from burns to car crashes to the Three Mile Island nuclear disaster have become increasingly central to American life. This course examines the history of accidents and why Americans have chosen to control some hazards but not others. We will investigate how accidents have changed over time alongside the introduction and spread of new technologies; cultural beliefs about safety; the economic and political interests of different stakeholders; and the efforts of safety experts, nonprofits, corporations, families, and the government to protect Americans from harm. On one level, this course traces the unexpected consequences of remaking the United States with modern industry, transportation, infrastructure, and consumer products. At the same time, it captures how the principles of free enterprise and personal responsibility continue to influence the American safety movement.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.340. The Engineer in the World. 3 Credits.

This course explores key themes in the global history of engineering. Engineering can refer to a profession, a kind of practical knowledge, or even a disciplined way of seeing the world. We will seek historical answers to three questions: Who is an engineer? What do engineers do? What do engineers know? Readings and discussions are structured around case studies from across the globe and from the fourth century BCE to the present. Although engineering students will find it particularly useful for understanding the historical context of their chosen field, all students interested in the historical relationship between society, the built environment, and expertise are encouraged to enroll.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.347. History Of Genetics. 3 Credits.

Intellectual and social history of the gene concept, including Mendelism, eugenics, medical genetics, DNA, genomics, and personalized medicine.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.349. History of Astrology. 3 Credits.

This course covers the history of horoscopic astrology from ancient times to the Scientific Revolution. We will read key astrological sources from the ancient Greek and Islamicate worlds, learning about prevailing theories of celestial influence and methods for making horoscopes. We will consider the key scientific and religious divisions that led to a millennium-long (and more!) debate over astrology's credibility. Using readings from modern historians, students will become familiar with a period during which divination by the stars was largely accepted. We will discuss the role astrological culture played in pre-modern Europeans' conception of the physical world and society.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.356. Man vs. Machine: Resistance to New Technology since the Industrial Revolution. 3 Credits.

This course analyzes various episodes of "luddism" in the history of science and technology, from the destruction of textile machinery in the early 1800s up to recent controversies about robots and vaccines. What explains why different groups of actors did (or did not) resist the introduction of new technologies, ranging from the bicycle and the automobile to the nuclear energy plant? What types of fears did these technologies arouse? What can history teach us about the current recurring concern that technological innovation might destroy more jobs than it generates? These are some of the themes we will be examining in this seminar on the basis of research presentations and classroom discussions of assigned articles and book chapters.

Area: Humanities, Social and Behavioral Sciences

AS.140.358. Shaping the Future of the City: Science, Technology & International Expositions 1850 to the present. 3 Credits.

This research seminar will examine how urban elites attempted to shape public opinion about the future of their city using world's fairs (international expositions) in their words "to educate" the population about trends and possibilities. Expositions from 1851 until the present will be examined. Each student will be asked (in consultation with the faculty) to write a research paper in lieu of a final examination. Lectures, discussion, films.

Area: Humanities, Social and Behavioral Sciences

AS.140.360. War and the Environment. 3 Credits.

How have wars shaped the natural world, and vice versa? How have affected communities responded to environmental harm? This course explores the environmental history of warfare from the 18th century through the 20th century. It interrogates the relationship between imperialism, nation-building, and environmental destruction, while asking how the natural world might or might not have influenced the outcome of these military conflicts. The course demonstrates how warfare drew attention to environmental vulnerabilities, both on a local and a global scale. Topics include resource extraction in Euro-American empires, WWII recycling campaigns, ecological violence in the Vietnam War, and nuclear weapons testing.

Area: Humanities, Social and Behavioral Sciences

AS.140.367. International Development in Action: America's Cold War Technical Cooperation in East Asia. 3 Credits.

Technical cooperation has been one of the most favored formats of international development because it aims to provide internal capacity for future development. Nevertheless, technical cooperation has been a site of political conflicts where different countries, social groups, capital funds, forms of knowledge, expertise, and opportunities collide. This course critically analyzes the political, diplomatic, social, and cultural surroundings of technical cooperation projects between the United States and East Asia during the second half of the 20th century. The course has three parts, each focusing on 1) theoretical and conceptual approaches to technical cooperation projects in East Asia, 2) different stakeholders, and 3) specific examples that display how the projects unfolded in real-life situations. Throughout the course, students will analyze various formats of historical sources such as photography, diary, correspondence, pamphlet, interview transcripts, and more!

Area: Humanities, Social and Behavioral Sciences

AS.140.386. Politics, Technology and the Media: 1800 to the present. 3 Credits.

This seminar will explore scientific-technological innovations and how they affected politics and communication in the United States from the introduction of steam railways and boats, the newspaper, the telegraph, telephone, photography, radio, the movies, television, and the digital computer. In lieu of a final examination, each student will be asked to write a research paper in consultation with the faculty. Lectures, discussions, films.

Area: Humanities, Social and Behavioral Sciences

AS.140.387. Islam and Medicine: Histories, Debates and Controversies. 3 Credits.

This course will analyze how “Islam” and “medicine” interacted and intersected from the medieval and into the modern and contemporary world. We will look at the rise of Islamic medicine in the medieval and early modern period, the modernization of medicine in the Islamic world, and we will also investigate questions and challenges facing Muslim physicians and patients in the US, Europe and inside and outside the Muslim-majority world. We will address questions related to modernization of medical education in the Islamic world, colonization and decolonization, questions related to gender and sexuality, issues related to Islamic bioethics from organ transplantation and clinical death to abortion, artificial fertilization among other similar questions.

Area: Humanities, Social and Behavioral Sciences

AS.140.398. Godzilla and Fukushima: Japanese Environment in History and Films. 3 Credits.

Japan is often described as “nature-loving,” and is considered to be one of world leaders in environmental protection policies. Yet current environmental successes come on the heels of numerous environmental disasters that plagued Japan in the past centuries. Juxtaposing Japanese environmental history and its reflection in popular media, the course will explore the intersection between technology, environment, and culture.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.140.411. Senior Research Seminar. 3 Credits.

For History of Science, Medicine, and Technology majors preparing a senior honors thesis.

Area: Humanities, Social and Behavioral Sciences

AS.140.484. Science and the Marketplace. 3 Credits.

This seminar explores the economic history of science and technology, mainly but not exclusively in the 19th-21st centuries. It takes stock of the historiography of capitalism and evaluates its application in, and relevance to, histories of science and technology (and vice versa). Specific topics that will be covered include, among others: market and moral economies in science; resource extraction; management-labor relations; intellectual property and knowledge circulation in science and technology; the economic valuation of life and nature; the trustworthiness of commercial science; and the histories of different types of knowledge work. The final selection themes will be determined in consultation with the students, who will be developing their own research project over the course of the semester.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

Modern Languages and Literatures**AS.210.313. Medical Spanish. 3 Credits.**

Medical Spanish is a comprehensive examination of vocabulary and grammar for students who either work or intend to work in medicine and health-related fields in Spanish-speaking environments. The student will be able to participate in conversations on topics such as contrasting health systems, body structures, disorders and conditions, consulting your doctor, physical and mental health, first-aid, hospitalization and surgery on completion of this course. In completing the course’s final project students will apply, synthesize, and reflect on what has been learned in the class by creating a professional dossier individualized to their professional interests. There is no final exam. Not open to native speakers of Spanish. No new enrollments permitted after the third class session.

Prerequisite(s): AS.210.311 OR AS.210.312 or appropriate Spanish placement exam score.

Area: Humanities

Writing Intensive

AS.211.259. Introduction to Medical and Mental Health Interpreting. 3 Credits.

This course is a broad introduction to the fields of medical and mental health interpreting. Modules will include: (1) Three-way communication: managing role expectations and interpersonal dynamics; (2) Basic interpreting skills and techniques in a healthcare setting; (3) Ethical principles, dilemmas, and confidentiality; (4) Elements of medical interpreting; (5) Elements of mental health interpreting; (6) Trauma-informed interpreting: serving the refugee population. The course is taught in English, and has no foreign language pre-requisites.

Area: Humanities

AS.211.307. Labor in Theory, Literature, and Art. 3 Credits.

This seminar examines some of the ways we define, represent, and think about the concept of labor in capitalism. We will analyze and compare a wide variety of texts (literary, visual, and theoretical) that embody different, often contradictory, notions of the work we do, why we do it, and how it affects us. As we investigate different types of work—productive and unproductive, physical & intellectual, factory & office—a few of the questions we will ask are: What methods have writers and artists used to depict labor in the 20th and 21st centuries? How is labor stratified along racial and gender lines? Is it possible to imagine a post-work society? The course curates a range of cultural artifacts (short stories, manifestos, novel excerpts, visual art, and film) that employ aesthetic strategies like irony, humor, absurdity, and duration to represent the dynamics of labor in capitalism. Theoretical texts then provide varied conceptual viewpoints from which to compare, contrast, and synthesize our impressions and interpretations of art and literary works. By the end of the semester, we will have traced a trajectory of labor in capitalism from the early 20th century to our own strange and precarious present.

Writing Intensive

AS.211.423. Black Italy. 3 Credits.

Over the last three decades Italy, historically a country of emigrants—many of whom suffered from discrimination in the societies they joined—became a destination for hundreds of thousands of migrants and refugees from various countries, and particularly from Africa. Significant numbers of these immigrants came to Italy as a result of the country's limited, though violent colonial history; others arrive because Italy is the closest entry-point to Europe. How have these migratory flows challenged Italian society's sense of itself? How have they transformed the notion of Italian national identity? In recent years, growing numbers of Afro- and Afro-descendant writers, filmmakers, artists and Black activists are responding through their work to pervasive xenophobia and racism while challenging Italy's self-representation as a 'White' country. How are they forcing it to broaden the idea of 'Italianness'? How do their counternarratives compel Italy to confront its ignored colonial past? And, in what way have Black youth in Italy embraced the #Blacklivesmatter movement? This multimedia course examines representation of blackness and racialized otherness, whiteness, and national identity through literary, film, and visual archival material in an intersectional framework. Examining Italy's internal, 'Southern question,' retracing Italy's colonial history, and recognizing the experiences of Italians of immigrant origins and those of immigrants themselves, we'll explore compelling works by writers and filmmakers such as Igiaba Scego, Gagliella Ghermandi, Maza Megniste, Dagmawi Yimer, and others.

Area: Humanities

AS.211.477. Renaissance Witches and Demonology. 3 Credits.

Who were the witches? Why were they persecuted for hundreds of years? Why were women identified as the witches par excellence? How many witches were put to death between 1400 and 1800? What traits did European witch-mythologies share with other societies? After the witch-hunts ended, how did "The Witch" go from being "monstrous" to being "admirable" and even "sexy"? Answers are found in history and anthropology, but also in medicine, theology, literature, folklore, music, and the visual arts, including cinema.

Prerequisite(s): Students who have already taken AS.214.171 cannot take AS.211.477.

Area: Humanities
Writing Intensive

AS.212.337. Illness and Immunity in Postwar French Literature. 3 Credits.

What does immunity have to do with literary studies? We will explore this question by examining the concept of immunity, not only as a medical and legal concept, but also as a cultural phenomenon. Students will analyze what "immunity" can teach us about the ideas of tolerance and defense and about the ways we come into contact and build relationships with others. Through attention to French novels and graphic novels, students will investigate the grammars and images linked to the concept of immunity and research how these languages and images shape how we think of mental and physical illnesses, vulnerability, exposure, as well as how they permeate body representations in French literature. Secondary sources such as philosophical texts, movies, and photographs will embed these narratives into larger issues within the history of medicine and postwar French literature.

Area: Humanities

AS.214.225. World Science Fiction. 3 Credits.

This course explores the local, global, and universal natures of the speculative genre of science fiction (SF) from the early twentieth century through the present. It highlights works from the Golden Age (late 1930s-'50s), the New Wave of the 1960s and '70s, cyberpunk in the 1980s, and today's various sub-genres and cross-over incarnations. We will approach the genre as a mode of thought-experimentation and world-building that problematizes actual and possible political, cultural, natural, cosmic, and techno-scientific realities. Among the themes included are the human-machine interface, environmental apocalypse, the alien, utopia-dystopia. Readings/viewings/listenings include short stories from nearly every continent, short films and tv episodes, visual art, music, journalism, and literary criticism. All materials and lectures in English.

Area: Humanities

Near Eastern Studies**AS.130.420. Seminar in Research Methods in Near Eastern Studies. 3 Credits.**

This writing intensive seminar examines the relationship between religion and science in ancient Mesopotamia and the rest of the Near East from the 4th millennium to the Hellenistic period. Using a variety of case studies, and through engagement with scholarly literature pertaining to the topic of the course, students will develop skills in specific research skills such as critical reading, analysis, and interpretation.

Area: Humanities
Writing Intensive

Philosophy**AS.150.136. Philosophy & Science: An Introduction to Both. 3 Credits.**

Philosophers and scientists raise important questions about the nature of the physical world, the mental world, the relationship between them, and the right methods to use in their investigations of these worlds. The answers they present are very different. Scientists are usually empiricists, and want to answer questions by experiment and observation. Philosophers don't want to do this, but defend their views a priori. Why? Can both be right? Readings will present philosophical and scientific views about the world and our knowledge of it. They will include selections from major historical and contemporary figures in philosophy and science. The course has no prerequisites in philosophy or science.

Area: Humanities, Natural Sciences

AS.150.219. Introduction to Bioethics. 3 Credits.

Introduction to a wide range of moral issues arising in the biomedical fields, e.g. physician-assisted suicide, human cloning, abortion, surrogacy, and human subjects research. Cross listed with Public Health Studies.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.150.245. Philosophy of Mind. 3 Credits.

If we know anything, it is natural to think it is our own minds. Despite this, philosophers have long disagreed about the natures of the states which make up our minds. And there is equally little agreement as to what makes such states count as mental in the first place. This course will investigate the nature of different aspects of mind and their interrelations. Time permitting, we will explore debates and puzzles about perception, memory, imagination, dreaming, pain and bodily sensation, emotion, action, volition and those states commonly classed as propositional attitudes: knowledge, belief, desire and intention. This will put us in a position to ask what if anything unifies such phenomena as mental

Area: Humanities

AS.150.312. Applied Public Health Ethics and Decision-Making. 3 Credits.

In this course, students receive an introduction to core theoretical foundations and case studies in public and global health ethics. This course adopts an applied framework for understanding how public health ethical values are navigated in different decision-making processes. This course is geared toward juniors and seniors.

Area: Humanities, Social and Behavioral Sciences
Writing Intensive

AS.150.405. Evidence: An Introduction. 3 Credits.

What is evidence? Can it ever be disregarded in science, the law, or religion, and if so, when? What are the paradoxes of evidence (grue, ravens) and how can they be solved?

Area: Humanities

AS.150.450. Topics in Biomedical Ethics. 3 Credits.

Area: Humanities
Writing Intensive

AS.150.476. Philosophy and Cognitive Science. 3 Credits.

This year's topic is perception. Questions will include: In what ways might perceptual states be like and unlike pictures? Does what we believe affect what we perceive? Is linguistic comprehension a kind of perception?

This course is geared toward advanced undergraduates and graduate students in philosophy and in the mind brain sciences and related fields. Others may be successful in the course depending on their prior course of study.

Area: Humanities, Social and Behavioral Sciences

Program in Museums and Society**AS.389.201. Introduction to the Museum: Past and Present. 3 Credits.**

This course surveys museums, from their origins to their most contemporary forms, in the context of broader historical, intellectual, and cultural trends including the social movements of the 20th century. Anthropology, art, history, and science museums are considered.

Crosslisted with Archaeology, History, History of Art, International Studies and Medicine, Science & Humanities.

Area: Humanities, Social and Behavioral Sciences

Public Health Studies**AS.280.120. Lectures on Public Health and Wellbeing in Baltimore. 1 Credit.**

An introduction to Urban Health with Baltimore as a case study: wellbeing, nutrition, education, violence and city-wide geographic variation. Lectures by JH Faculty, local government/service providers and advocates.

Area: Social and Behavioral Sciences

Sociology**AS.230.341. Sociology of Health and Illness. 3 Credits.**

This course introduces students to core concepts that define the sociological approach to health, illness and health care. Topics include: health disparities, social context of health and illness, and the Sociology of Medicine.

Area: Social and Behavioral Sciences

Writing Seminars**AS.220.206. Writing about Science I: Daily News Journalism. 3 Credits.**

This course is designed to teach students the skills of daily news reporting, with a focus on covering science news. Students will learn how to turn scientific discoveries into lively and engaging prose for the general public, interview sources, and pitch stories to news organizations. The skills taught are applicable to all areas of journalism, not just science journalism.

Area: Humanities
Writing Intensive

AS.220.424. Science and Storytelling: The Narrative of Nature, the Nature of Narrative. 3 Credits.

Class reads the writings of scientists to explore what their words would have meant to them and their readers. Discussion will focus on the shifting scientific/cultural context throughout history. Authors include Aristotle, Copernicus, Galileo, Descartes, Newton, Darwin, Freud, Einstein, Heisenberg, Bohr, Crick and Watson.

Area: Humanities
Writing Intensive