History of Science and Technology

The Department of the History of Science and Technology offers an undergraduate program leading to the degree of Bachelor of Arts with a major in science, medicine, and technology, and a graduate program leading to the degree of Doctor of Philosophy.

The department offers a variety of courses that deal with the history of the conceptual and technical development of the sciences, as well as the cultural and social impact of science and technology on Western civilization. These courses are open to all undergraduates in the Schools of Arts and Sciences and Engineering. A few of the courses require some background in an appropriate science, but others are accessible to those with no specialized knowledge who want to understand the part science has played in shaping modern culture. Students who have concerns about their technical competence for a given course should consult the professor involved.

Major in History of Science, Medicine, and Technology

Offered in cooperation with the Institute of the History of Medicine, this major allows students to combine substantive work in science with study of the social and historical context of modern science, medicine, and technology. The aim of the program is to produce graduates who are scientifically literate and technically competent, and who at the same time understand science and medicine not as static, autonomous enterprises but rather as modes of thought that have developed in specific social contexts.

The major is appropriate for any student planning a career in medicine or other areas of the health care industry. It is also flexible enough to serve as a basis for a variety of careers where an informed knowledge of science and technology and their impact on society is important. Such careers include broad areas of business and industry, journalism, teaching, museum work, and specialized areas of law and public policy.

Requirements for the B.A. Degree

• Sciences: In the sciences, engineering, and mathematics, students are required to have one semester of introductory calculus and a total of 30 credits coded (E, N, or Q), of which at least nine credits must be above the 100-level. These may be counted as part of the university’s distribution requirements. Laboratory courses in science count toward this requirement.

• History of Science, Medicine and Technology: A total of 24 credits of course work in the history of science, medicine and technology are required. These must include at least two survey courses and four additional courses above the 100-level (AS.140.103 Technology/ Western Traditions, AS.140.104, AS.140.105 History of Medicine, AS.140.106 History of Modern Science, AS.140.107 Introduction to Medicine, AS.140.108 Culture, Communication, and Technology, AS.140.109 Medicine: A Disciplinary View, AS.140.301 History of Science: Antiquity To Renaissance, AS.140.302 Rise of Modern Science, AS.140.303 Spaces of Inquiry: the Clinic, the Studio, or AS.140.321 Scientific Revolution.) Students in their senior year may take graduate courses, with permission. Students who demonstrate excellence in course work are eligible to write an honors thesis in their final year, for four additional credits. Students must have outstanding recommendations from two department members to be eligible for the thesis. Departmental honors are conferred if overall GPA is 3.5 and the thesis grade is A- or higher.

• Other Distribution Requirements: Students must take 12 credits outside the department and six credits in the Humanities, Social and Behavioral Sciences, Engineering, or Quantitative Studies. The choice of courses must be approved by the undergraduate advisor.

Minor in the History of Science, Medicine and Technology

The department offers a minor which may be combined with other science, social science, or humanities majors. To complete the requirements for the minor, students must have a total of 18 credits in the history of science, medicine, or technology, including at least one survey course. Students may elect one course outside the department, with the advisor’s approval.

Ph.D. in the History of Science and Technology

The graduate program in the history of science and technology leads to the Ph.D. degree. Although an M.A. degree is granted, candidates who seek only that degree are not ordinarily admitted. The object of the Ph.D. program is to provide the rigorous training necessary for a scholarly career in teaching and research; consequently, the focus of the student’s activity will be the research seminars of the department. Faculty from the Institute of the History of Medicine in the School of Medicine also participate in the program.

Admission

Application deadline is January 15. All supplemental materials (official transcripts, three letters of recommendation, official GRE scores, and, when applicable, official TOEFL scores) should be sent directly to the Graduate Admissions Office at:

Johns Hopkins University
Full-time Graduate Studies in Arts, Sciences, and Engineering
Graduate Admissions Office
Shriver Hall 28
3400 North Charles Street
Baltimore, Maryland 21218

For further information on our faculty and programs, please visit our website at: http://host.jhu.edu.

Requirements for the Ph.D. Degree

Before candidates begin full-time research on their dissertations, they must prepare themselves adequately in the appropriate fields of knowledge, become skilled in the techniques of historical research, and be able to carry out a sustained piece of historical analysis and writing.

In the first year of the program students are introduced to the methods and techniques of research and complete a year-long survey course in the history of science or the history of medicine. Students in their second year of study present a research paper to the department. In the second and third years of study, students prepare a field in history and two specialized fields in the history of science, medicine, or technology. The fields are individually arranged and satisfied. The fields entail broad and intensive reading and the passing of a comprehensive examination
and/or presentation of a major research paper. Before being admitted for formal candidacy for the degree, the student must also demonstrate a reading knowledge of two foreign languages. The final requirement for the Ph.D. degree is the completion of a dissertation that is an original contribution to historical knowledge and of a standard suitable for publication.

The History of Science and Technology is by its nature interdisciplinary, and students are encouraged to undertake study in related areas such as history, philosophy, and the natural and medical sciences.

Facilities
The Eisenhower Library and the Welch Medical Library contain about two million volumes, including the special collections of the Institute of the History of Medicine in Baltimore. These research facilities are supplemented by the rare book holdings at Evergreen House, the Pratt Library, and the Peabody Library.

Other important research collections are available to students. In Philadelphia, collections include the Chemical Heritage Foundation, the American Philosophical Society, and the Academy of Natural Sciences. The Hagley Museum and Library’s collections in the history of American science and technology are within easy distance of campus, as are the incomparable holdings of the Library of Congress, the National Library of Medicine, and other governmental agencies in Washington, D.C.

Financial Aid
The department has several graduate fellowships and teaching assistantships. Students may also be eligible for federal financial support through the National Science Foundation. Information on these and other fellowships can be obtained through the fellowship advisor at the student’s college, or from the Fellowship Office of the National Academy of Sciences, National Research Council, Washington, D.C. 20025. In the recent past, doctoral candidates have also won support for their research in the United States and abroad through such sources as the Smithsonian Fellowships, the Fulbright-Hays grants, the Spencer Foundation, and the Deutscher Akademischer Austauschdienst (DAAD) Fellowship.

For current faculty and contact information go to http://host.jhu.edu/people/

Faculty
Chair
Sharon Kingsland
Professor (Chair): history of biology, especially ecology, genetics and behavioral biology; science in America.

Professors
Robert H. Kargon
Willis K. Shepard Professor of the History of Science: history of physics; science and social change; science in America.

Stuart W. Leslie
History of technology, history of science-based industry.

Lawrence M. Principe
Drew Professor of the Humanities, Professor: history of chemistry and alchemy, early modern science, science and religion.

Associate Professor
Maria Portuondo
History of science, science and exploration, science and technology in Latin America, early modern Spanish and Latin American Cosmography and geography.

Assistant Professor
Yulia Frumer
History of science, Japanese history.

Affiliated Faculty School of Medicine
Nathaniel C. Comfort
Associate Professor: history of biology, especially genetics, molecular biology, and biomedicine; history of recent science, oral-history and interviewing. Current project: History of human and medical genetics in America.

Mary E. Fissell
Professor: European health care and popular medicine, 17th and 18th centuries; early modern gender and the body.

Jeremy Greene
Elizabeth Treide and A. McGehee Harvey Chair in History of Medicine, Associate Professor: 20th century clinical medicine, therapeutics, pharmaceuticals, global health, history of disease.

Marta Hanson
Associate Professor: history of East Asian Medicine; History of Chinese science and medicine; history of epidemics and disease in China.

Graham Mooney
Assistant Professor: history of public health, 19th and 20th centuries; historical epidemiology; historical demography; disease surveillance and risk.

Randall M. Packard
William H. Welch Professor of History of Medicine: history of disease; public health; and medicine, health, and disease in Africa.

Gianna Pomata
Professor: medieval and Renaissance European medicine; natural history; Italy; history of history and of scholarship.

Daniel P. Todes
Professor: history of Russian medicine and science, social relations of scientific thought, history of biomedical sciences.

Part-Time and Joint Appointments
Elizabeth Rodini
Director, Program in Museums and Society.

For current course information and registration go to https://isis.jhu.edu/classes/
Courses

AS.140.105. History of Medicine. 3 Credits.
Course provides an overview of the medical traditions of six ancient cultures; the development of Greek and Islamic traditions in Europe; and the reform and displacement of the Classical traditions during the Scientific Revolution. Cross-listed with Public Health Studies
Instructor(s): M. Fissell
Area: Humanities, Social and Behavioral Sciences.

AS.140.106. History of Modern Medicine. 3 Credits.
The history of Western medicine 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.
Instructor(s): D. Todes
Area: Humanities, Social and Behavioral Sciences.

AS.140.111. Freshman Seminar. 3 Credits.
This Freshman Seminar explores instances of first contact between different world cultures and western science (16th-20th c.). Some cases considered include Jesuits in the Chinese imperial court, Spanish missionaries and the Maya, etc.
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences.

AS.140.113. Freshmen Seminar: Darwin, Freud, Pavlov: Perspectives on Human Nature. 3 Credits.
Instructor(s): D. Todes
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.115. Freshmen Seminar: Humans and Artifacts. 3 Credits.
Instructor(s): Y. Frumer
Area: Humanities, Social and Behavioral Sciences

AS.140.117. Freshman Seminar: What was Enlightenment? 3 Credits.
The 18th century movement known as “enlightenment” is the source for many of our Euro-American ideas about reason, modernity and progress. Enlightenment thinkers and traditions are also the main targets of contemporary post-modern critics. This course will examine key texts in the Enlightenment and anti-Enlightenment traditions.
Course relies on weekly discussions based on close textual readings, and weekly writing assignments.
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.118. Fresh Sem: Science and Utopia. 3 Credits.
Area: Humanities, Social and Behavioral Sciences

AS.140.123. Johns Hopkins: The Idea of a University. 3 Credits.
Who was Ira Remsen and why is he interred in the building bearing his name? Was the School of Medicine’s best surgeon really a life-long drug addict? This freshman seminar will explore the history of our university since its founding in 1876, including its schools of medicine, public health, nursing, the Applied Physics Laboratory and SAIS. We’ll look carefully at the archives and develop a thematic class exhibit. Research and writing intensive.
Instructor(s): S. Leslie
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.125. The Hospital. 3 Credits.
You were probably born in one, will sooner or later find yourself being treated in one, and might just spend your career in one. This course will look at the history, economics, technology, and public policy debates surrounding the modern hospital. We will explore the hospital’s role in health care delivery in rural and urban settings, in medical schools, and in mental asylums and other specialized hospitals. Special attention will be paid to the Johns Hopkins Hospital, America’s top-ranked for 18 years and counting.
Area: Humanities.

AS.140.126. Modern Medicine. 3 Credits.
Area: Humanities, Social and Behavioral Sciences.

AS.140.127. History of Psychiatry: Medicine and Madness from Antiquity to the Present. 3 Credits.
Area: Humanities, Social and Behavioral Sciences Writing Intensive.

AS.140.143. Genetics in Medicine & Society. 3 Credits.
If you ever become seriously ill, have children, or read the newspaper, you cannot afford to be ignorant of the science of heredity. In this class, we will explore some of the principle concepts of genetics and their social impact, from Gregor Mendel to the Human Genome Project. We will read some original papers as well as review articles and historical analyses. Topics covered will include: the rediscovery of Mendel’s principles; eugenics; the introduction of genetics into medicine; concepts of genetic disease; genetic and biochemical individuality; genetics, race, and gender; and genetic screening and testing. This course will be discussion-heavy and include a term paper.
Instructor(s): N. Comfort
Area: Humanities, Social and Behavioral Sciences.

AS.140.152. The Roots of the Stem Cell Debate. 3 Credits.
For science & non-science majors. We will study the science of stem cells & related topics (e.g. cloning) and then put the stem cell debate into its cultural context. We will use these discussions to examine the interplay between science & culture, focusing on ethics, politics, and the education of the public while examining the role that the media plays.
Area: Humanities, Social and Behavioral Sciences.

AS.140.161. Thinking and Living with Animals: Human-Animal Relationships in History. 3 Credits.
The course analyzes the history of human-animal interactions focusing on the way in which discourses and knowledge about animals shaped fundamental concepts such as gender, culture, agency, and knowledge.
Dean’s Teaching Fellowship course
Instructor(s): M. Petrozzi
Area: Humanities, Social and Behavioral Sciences.

AS.140.215. Monuments and Memory. 3 Credits.
Why do some places, whether manmade or natural, capture and hold our imaginations? Why, and how, do we commemorate particular sites? This course will explore the construction or discovery, and the enduring significance, of selected monuments in the West, beginning with the Great Pyramid and ending with the World Trade Center. We will consider national memorials by which the West has measured itself. We will study how they were made, interpreted and represented in art, literature, popular culture, and tourism. Cross-listed with Program in Museums and Society.
Instructor(s): S. Leslie
Area: Humanities, Social and Behavioral Sciences.
AS.140.217. Urban Modern: Science, Technology and Modernity since 1880. 3 Credits.
Instructor(s): R. Kargon
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 concepts, practice, and the cultural roles of scientific thought from classical antiquity to the time of Copernicus. Topics include the pre-Socratics, the systems of Plato and Aristotle and their continuing influence, Islamic science, Latin medieval scholasticism and the universities, and Renaissance hermeticism/natural magic. Interactions across science, art, technology, and theology are highlighted.
Instructor(s): L. Principe
Area: Humanities, Social and Behavioral Sciences

Survey of major scientific advances from 18th to 20th century, from Newtonian science to the age of Big Science.
H.S.

AS.140.303. Spaces of Inquiry: The Clinic, The Studio..... 3 Credits.
How have science, medicine and the arts informed and shaped one another? This undergraduate seminar traces the interaction of key sites of knowledge production from the early 19th to the late 20th c., with a focus on universities, museums, corporations, libraries and hospitals.
Instructor(s): G. Pomata
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.304. Medicine for and by Women in Early Modern Europe. 3 Credits.
This course will examine women’s role in early modern European medicine through the reading of early modern medical texts written for or by women. The course is meant for students interested in women’s history, the history of medicine, European history.
Instructor(s): G. Pomata
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.305. Science and Technology in East Asia. 3 Credits.
The course explores the historical and cultural context of scientific and technological developments in China, Japan and Korea, focusing especially on the rise of modern science in the 19th and the 20th century.
Instructor(s): Y. Frumer
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.306. Science And Religion. 3 Credits.
Science and religion are crucial influences on Western culture. This course examines their interrelations during the past 2000 years, including the Athens-Jerusalem debate, medieval theology, the Galileo affair, evolution, and current issues.
Instructor(s): L. Principe
Area: Humanities, Social and Behavioral Sciences.

AS.140.307. War and Technology in East Asia. 3 Credits.
Instructor(s): M. Son
Area: Humanities, Social and Behavioral Sciences.

AS.140.311. Ecology, Health, and the Environment. 3 Credits.
An interdisciplinary perspective on environmental history, including history of ecological science, urban ecology, human health and sustainability. Course has a historical emphasis but students can investigate current problems. Focus is on the Chesapeake region. Cross-listed with GECS
Instructor(s): S. Kingsland
Area: Humanities, Social and Behavioral Sciences.

AS.140.315. Spaceflight and Society: Exploring the History of the Final Frontier. 3 Credits.
This course explores the history of spaceflight, emphasizing its civil component, but also including national security and commercial activities, and the interactions among all components of spaceflight around the world.
Instructor(s): R. Launius
Area: Humanities, Social and Behavioral Sciences.

AS.140.320. Modernity on Display: Technology and Ideology in the Era of World War II. 3 Credits.
Seminar focuses on ideological warfare over technological modernity at world’s fairs 1937-1942. France, United States, Japan, Germany and Italy.
Instructor(s): A. Molella; R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.321. Scientific Revolution. 3 Credits.
This course concerns developments in early modern Europe accepted as the origins of modern science. With a focus on the fundamental change in our understanding of nature, course topics include alchemy, astrology, astronomy, cosmology, humanism, mechanics, natural magic, and physics.
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences.

AS.140.322. The Heavens and Earth in the History of Astronomy. 3 Credits.
How do we study the stars, and what do they tell us about the earth? In this course, we explore views of the heavens across history, from ancient Greece to international astrophysics. Special emphasis will be given to the ‘new stars’ of 1572 and 1604, whose remnants astronomers at Johns Hopkins University continue to study today. Cross-listed with Earth and Planetary Science, Physics and Astronomy
Instructor(s): P. Boner
Area: Humanities, Social and Behavioral Sciences.

AS.140.325. Cult/Communica/Technol. 3 Credits.
After examining oral communication, emergence of writing, printing, perspective, and extensions of senses (telescope, camera, radio, telephone, internet), seminar focuses on the emergence of visual culture in the 20th century.
Instructor(s): R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.327. Science and Utopia. 3 Credits.
Seminar examines the changing role of science in planning the ideal community from the 17th century to the present. Readings include works by Campanella, Bellamy, H.G. Wells, Orwell, B.F. Skinner and Walt Disney.
Instructor(s): R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.330. Oral History Theory and Method. 3 Credits.
Instructor(s): N. Comfort
Area: Humanities, Social and Behavioral Sciences.
AS.140.332. Science Moderne: Inventing a Culture for the Future. 3 Credits.
This undergraduate seminar examines the impact of new ideas of time and space and of the second Industrial Revolution (the transformations induced by science-based technologies) on art, music, dance, urban design, architecture, and social and political thought in the first half of the 20th century. Cross-listed with Program in Museums and Society.
Instructor(s): A. Molella; R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.333. The Idea of the Artificial Human in History. 3 Credits.
Course examines the concept of the artificial human as a mirror of changing world-views from late middle ages through the twentieth century. Readings include Mary Shelley, Wells, Capek, Piercy.
Instructor(s): R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.334. Science in the Atomic Age. 3 Credits.
Transformation of science after WWII, including rise of interdisciplinary fields, Big Science, atomic science, molecular biology, and environmentalism. Research paper required.
Instructor(s): S. Kingsland
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.339. JHU Oxford: History & Philosophy of Sciences. 3 Credits.
Open to JHU Oxford participants only.
Instructor(s): J. Schildbach; Staff.

AS.140.346. History of Chinese Medicine. 3 Credits.
Students will study the most recent anthropological, philosophical, and historical scholarship on medicine in traditional and modern Chinese society. They will approach the topic from several angles including medical pluralism, the range of healers, domestic and literate medicine, gender, emergence of new disciplines, public health and the history of disease. The course relies on secondary sources and primary sources in English translation. Cross-listed with East Asian Studies.
Instructor(s): M. Hanson
Area: Humanities, Social and Behavioral Sciences.

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.
Instructor(s): N. Comfort
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.349. The Laboratory. 3 Credits.
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.352. Who Wants to be a Billionaire?: High Tech & the American University. 3 Credits.
Long before Facebook, faculty and students were creating startups on campus. This course examines college entrepreneurship from its 19th-century origins to today: the potential perils, profits, and promise for entrepreneurs and universities alike.
Instructor(s): S. Morris
Area: Humanities, Social and Behavioral Sciences.

AS.140.354. Science, Technology and Society in Modern East Asia. 3 Credits.
The course aims to survey the history of science and technology in East Asian countries—China, Japan and Korea—since the late 19th century. Since Japan was the only nation in East Asia that succeeded in modernizing itself by adopting western science, technology and politics, it will be studied first. The Chinese and Korean cases then will be reviewed from different angles. The course will emphasize the mutual influence between science & technology and society to answer how they became major industrial powers in the 21st century. Cross-listed with East Asian Studies.
Instructor(s): D. Kim; Y. Li
Area: Humanities, Social and Behavioral Sciences.

AS.140.359. Museums and Globalization. 3 Credits.
Examines how museums are linked to wider national, cultural, communities, and mobilize resources to address political, economic and social concerns and questions of heritage. Jointly with Case Western Reserve University. Cross-listed with Program in Museums & Society.
Instructor(s): R. Kargon
Area: Humanities, Social and Behavioral Sciences.

AS.140.360. Changes In The Land. 3 Credits.
Course examines environmentalism from Dust Bowl to global warming, with emphasis on scientific study of environmental problems. Students will do research papers.
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.362. The Communications Revolution. 3 Credits.
Investigates the nature and impact of phenomenal changes in transportation and communication since the 19th-century, including iconic developments such as the Panama Canal, Brooklyn Bridge, airplanes, automobiles, television, wireless communication and the internet.
Instructor(s): S. Morris
Area: Humanities, Social and Behavioral Sciences.

AS.140.363. Museums & Controversy: from the Enola Gay to Body Worlds. 3 Credits.
Exhibitions on Freud, Darwin, the Bomb, environment, the human body, and similar “hot” topics have stirred unexpected controversy. This seminar explores the origins of such heated public and scientific disagreements. Cross-listed with Program in Museums & Society.
Area: Humanities, Social and Behavioral Sciences.

AS.140.364. How Electricity Changed the World: A Cultural History. 3 Credits.
Traces emergence of electrical sciences and industries to understand how society and culture has been affected by electricity up to the early 20th century. Course also considers global expansion of electrical networks through capitalism, industrialization, and colonialism.
Area: Humanities, Social and Behavioral Sciences.

AS.140.365. From Colonial to Global Health: Health, Healing and European Expansion, 1500-1950. 3 Credits.
This course traces the impact of European expansion on health, medicine and disease control from the Age of Exploration to the emergence of international and global health in the early twentieth century. Dean’s Teaching Fellowship course.
Instructor(s): K. Arner
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.
AS.140.369. The Cities of East Asia: A Cultural History. 3 Credits.
Instructor(s): M. Son
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.372. Science on Display. 3 Credits.
History of collecting, exhibiting and interpreting science and technology, from Renaissance cabinets of curiosity to modern world’s fairs, zoos, aquariums, films and science centers. Students will present their own exhibits as dioramas, web sites, documentaries or other formats. Cross-listed with Program in Museums and Society
Instructor(s): S. Leslie
Area: Humanities, Social and Behavioral Sciences.

AS.140.375. The History of Modern Science and Technology in East Asia. 3 Credits.
Area: Humanities, Social and Behavioral Sciences.

AS.140.376. A Second World Within the World of Nature: The History of Geographic Thought. 3 Credits.
This course traces the development of the science of geography from antiquity through the mid-nineteenth century. Readings explore the legal, political, cultural and theological resonances of geography during this period.
Instructor(s): M. Franco
Area: Humanities, Social and Behavioral Sciences.

AS.140.377. When the West Came East: Science & Technology in East Asia 19th-Early 20th Century. 3 Credits.
This course is an exploration of 19th - 20th century China, Japan and Korea. We will examine the links between technology and imperialism to understand why by the 19th and 20th centuries these East Asian countries began to fall behind in the race for technological superiority.
Instructor(s): M. Son
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.383. Thinking and Living with Animals. 3 Credits.
Area: Humanities, Social and Behavioral Sciences.

AS.140.385. A Patient’s History of Health and Healing (1600-1750)(DTF). 3 Credits.
This course explores themes in the history of medicine in early modern Europe from the patient’s point of view. Topics include patients’ conceptions of disease categories, articulations of suffering, use of popular medical texts, experiences of childbirth, negotiations with healers, and approaches to death. Dean’s Teaching Fellowship course
Cross-listed with Public Health Studies
Instructor(s): O. Weisser
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.387. Understanding the Heavens: The History of Astronomy from Hipparcchus to Hubble. 3 Credits.
Area: Humanities, Social and Behavioral Sciences.

AS.140.389. Exploration and Science. 3 Credits.
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences.

AS.140.390. Science and Technology in Latin America. 3 Credits.
The course surveys various national contexts to illustrate major themes in western science and technology in Hispanic America (1492 to the present). Cross-listed with Program in Latin American Studies
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences.

AS.140.392. Sexing the Body: Gender, Sexuality, and Medicine. 3 Credits.
Instructor(s): S. Eder.

AS.140.397. The Population Problem in Historical Perspective. 3 Credits.
This course will trace the major debates over the relationship of population growth to food supply, birth control, resources, and environmental change from the 18th century to present. Cross-listed with Public Health Studies
Instructor(s): T. Long
Area: Humanities, Social and Behavioral Sciences.

AS.140.398. Godzilla and Fukushima: Japanese Environment in History and Films. 3 Credits.
Juxtaposing Japanese environmental history and its reflection in popular media, the course will explore the intersection between technology, environment, and culture. The course will be accompanied by relevant movie screenings.
Instructor(s): Y. Frumer
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.411. Senior Research Seminar. 2 Credits.
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences.

AS.140.412. Research Seminar. 2 Credits.
Departmental Majors Writing a Senior Thesis Only
Instructor(s): M. Portuondo
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.413. The White Plague: History of Tuberculosis. 3 Credits.
Instructor's permission only. Examination of interrelated scientific, medical, social, and cultural dimensions of tuberculosis from early modernity to the present in various geographical and cultural settings. Extensive reading, research based on primary sources. Cross-listed with History, Anthropology
Instructor(s): D. Todes
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.418. Medicine for and by Women in Early Modern Europe. 3 Credits.
This course will examine women’s role in early modern European medicine through the reading of early modern medical texts written for or by women. The course is meant for students interested in women’s history, the history of medicine, European history. Cross-listed with History
Instructor(s): G. Pomata
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.
AS.140.425. Individualized Medicine from Antiquity to the Genome Age. 3 Credits.
A seminar for graduate students and advanced undergraduates. We will explore the notion of the individual in medicine over 25 centuries, from the Hippocratics to the invention of the case study during the Renaissance to the genetic, biochemical, and immunological individual in recent biomedicine. Recommended Course Background: AS.140.105, AS.140.106
Instructor(s): G. Pomata; N. Comfort
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.445. Mixing It Up: Interdisciplinarity in Science. 3 Credits.
Many landmark discoveries in science, such as the discovery of the double helix, were achieved through an interdisciplinary approach. Our course explores how institutions of research and education have advanced science through the promotion of interdisciplinarity. Case studies examine important problems in physical and biological sciences whose solutions required interdisciplinary approaches. Research paper required.
Instructor(s): R. Kargon; S. Kingsland
Area: Humanities, Social and Behavioral Sciences.

AS.140.451. History and Ethics of Body Modification. 3 Credits.
Explores the history and ethics of various forms of body modification, including: cosmetic surgery, tattooing, transsexuality, transability, performance-enhancing and mood-altering drugs, prostheses, vampirism, and bodybuilding. Co-listed with 140.651
Instructor(s): D. O’Connor
Area: Humanities, Social and Behavioral Sciences
Writing Intensive.

AS.140.501. Independent Study. 3 Credits.
Instructor(s): M. Portuondo.

AS.140.502. Independent Study. NULL Credits.
Instructor(s): M. Portuondo.

AS.140.597. Research-Summer. 3 Credits.
Instructor(s): S. Leslie; Staff.

AS.140.598. Summer Internship. 1 Credit.
Instructor(s): S. Leslie; Staff.

AS.140.599. Independent Study-Summer. 3 Credits.
Instructor(s): S. Leslie.

An introductory course at the graduate level to the interpretation of historical evidence; to the social, intellectual, and political analysis of historical data; and to contemporary methods in the history of science, medicine, and technology.
Instructor(s): M. Hanson.

Writing Intensive.

AS.140.617. Seminar in the History of Biological Sciences.

AS.140.618. Seminar in the History of Life Sciences.
For graduate students preparing fields in history of science.
Instructor(s): S. Kingsland.

AS.140.626. Advanced Seminar.
Seminar designed for Ph.D. students currently working on their dissertation thesis.
Instructor(s): R. Kargon; Y. Frumer.

AS.140.629. Beyond the Panopticon: Observing, Representing, and Managing People.

AS.140.635. The Postwar Reconstruction of Science.
Examines transformation of science after World War II in comparative perspective. Students will do a research project.
Instructor(s): R. Kargon; S. Kingsland.

AS.140.639. Empire and Nation in Modern East Asia.

AS.140.641. Departmental Colloquium.
Reports by staff members, students, and invited speakers.
Instructor(s): M. Portuondo.

AS.140.642. Colloquium.
Reports by faculty, students, and invited speakers.
Instructor(s): M. Portuondo; S. Kingsland.

AS.140.647. Science and the State, 1500-1900.
Comparative analysis of rise of modern state and rise of modern science from early modern period through 19th century. Students will write research papers.
Instructor(s): R. Kargon; S. Kingsland.

The course explores how early modern natural philosophers engaged with ancient philosophies to fashion the approaches to the study of nature associated with the Scientific Revolution. Topics discussed include Neoplatonism, Hermetism, Skepticism, Atomism and various other conceptions of nature and knowledge.
Instructor(s): M. Portuondo.

AS.140.651. The History and Ethics of Body Modification.
Explores the history and ethics of various forms of body modification, including: cosmetic surgery, tattooing, transsexuality, transability, performance-enhancing and mood-altering drugs, prostheses, vampirism, and bodybuilding. Co-listed with 140.451
Instructor(s): D. O’Connor

AS.140.652. Seminar in the History of Technology.
Reading seminar and general introduction to key historiographical, topical and methodological issues of the field. Readings include contributions to technological history from the perspectives of economics, cultural studies, sociology and archeology.
Instructor(s): M. Portuondo.

Instructor(s): R. Kargon.

AS.140.655. Early Modern Science in France.

AS.140.656. Science in the American Century.
Open to juniors and seniors without instructor’s permission. Selected topics in 20th century history of science and technology with emphasis on American science and its impact worldwide.
Instructor(s): R. Kargon; S. Kingsland; S. Leslie.

AS.140.657. Science on Display.
History of collecting, exhibiting and interpreting science and technology, from Renaissance cabinets of curiosity to modern world’s fairs, zoos, aquariums, films and science centers. Students will present their own exhibits as dioramas, web sites, documentaries or other formats. Cross-listed with Program in Museums and Society
Instructor(s): S. Leslie.

AS.140.658. Main Currents in American Science and Technology.
A graduate seminar focusing on major periods and selected themes from the colonial era to the present.
Instructor(s): R. Kargon; S. Leslie.
History of Science and Technology

This graduate research seminar aims at the production of professional-quality research papers focusing on social, cultural and technical change in late 19th and 20th-century cities world-wide. Students are expected to present work-in-progress and engage in constructive criticism. Undergraduates by permission only.
Area: 2.00.

AS.140.705. History of Science: Antiquity To Renaissance.
The first part of a three-part survey of the history of science. This course deals with the concepts, practice, and the cultural roles of scientific thought from classical antiquity to the time of Copernicus. Topics include the pre-Socratics, the systems of Plato and Aristotle and their continuing influence, Islamic science, Latin medieval scholasticism and the universities, and Renaissance hermeticism/natural magic. Interactions across science, art, technology, and theology are highlighted. Lecture meets with AS.140.301
Instructor(s): L. Principe.

Seminar on major scientific developments from 18th-20th century. Weekly readings, discussion and class presentations. Students may attend lectures for 140.302.
Instructor(s): S. Kingsland.

AS.140.710. Scientific Revolution.
Course concerns developments in early modern Europe known as the Scientific Revolution. Topics include cosmology, astronomy, mechanics, natural history, and chemistry and issues involving magic, technology, humanism, and the social content of early modern science. Lecture meets with 140.321 Lec.
Instructor(s): M. Portuondo.

AS.140.722. Wretched Subjects.
While earlier generations of historians often considered the topics of alchemy, astrology, magic, etc. as "pseudosciences," current scholarship shows them to be crucial parts of the history of science. This graduate research seminar explores the content, contributions, context, exile, and revival of these "wretched subjects." Students will write a substantial paper based on their original research.
Instructor(s): L. Principe.

Instructor(s): R. Kargon.

AS.140.802. Directed Readings & Diss.
Instructor(s): R. Kargon.

AS.140.803. Independent Study-Summer.
Instructor(s): S. Kingsland.

Instructor(s): S. Kingsland.

AS.140.812. Directed Readings & Diss.
Instructor(s): S. Kingsland.

Instructor(s): S. Leslie.

AS.140.832. Directed Readings & Diss.
Instructor(s): S. Leslie.

Instructor(s): L. Principe.

AS.140.836. Directed Readings & Diss.
Instructor(s): L. Principe.
Cross Listed Courses

German Romance Languages Literatures

**AS.211.237. Literature and Medicine. 3 Credits.**

Taught in English. The course will analyze literary representations of illness as well as explore interfaces between literary and medical knowledge in more general ways. Both literature and medicine can be considered semiotics as they deal with the study of signs; further, both are invested in interpretation. We will analyze the relation between literature and madness, explore “illness as metaphor” (Susan Sontag) and discuss case studies in relation to literary genres (for example, Freud is surprised to notice that his studies on hysteria read like novellas). As prominently depicted in Thomas Bernhard’s “In the Cold” and theoretically analyzed by Michel Foucault, the course will further address the nexus between medical institutions and power. Readings will include: Antonin Artaud, Thomas Bernhard, Georg Büchner, Michel Foucault, Sigmund Freud, Henry James, Franz Kafka, Thomas Mann, Daniel Paul Schreber, Susan Sontag, etc. Films: “Philadelphia” (Jonathan Demme, 1993), “Melancholia” (Lars von Trier, 2011).

Instructor(s): E. Strowick
Area: Humanities.

**AS.211.358. Bodyworks: Body, Medicine and Technology in the 21st Century. 3 Credits.**

Area: Humanities.

**AS.212.303. Performing Madness: from Tristan to King Lear. 3 Credits.**

For minors/majors in French, advanced level of French (AS.210.302) is required. For all other students, reading knowledge of French is recommended. The class explores the facets of madness in the medieval and Renaissance imaginary. Readings will include Tristan and Yseut, Play of Madness, The Praise of Folly, King Lear. The class will be taught in English. French majors/ minors will have to write all assignments in French. Cross-listed with History of Science, Medicine and Technology Dean’s Teaching Fellowship

Instructor(s): A. Marculescu
Area: Humanities
Writing Intensive.

**AS.213.237. Literature and Medicine. 3 Credits.**

Taught in English. The course will analyze literary representations of illness as well as explore interfaces between literary and medical knowledge in more general ways. Both literature and medicine can be considered semiotics as they deal with the study of signs; further, both are invested in interpretation. We will analyze the relation between literature and madness, explore “illness as metaphor” (Susan Sontag) and discuss case studies in relation to literary genres (for example, Freud is surprised to notice that his studies on hysteria read like novellas). As prominently depicted in Thomas Bernhard’s “In the Cold” and theoretically analyzed by Michel Foucault, the course will further address the nexus between medical institutions and power. Readings will include: Antonin Artaud, Thomas Bernhard, Georg Büchner, Michel Foucault, Sigmund Freud, Henry James, Franz Kafka, Thomas Mann, Daniel Paul Schreber, Susan Sontag, etc. Films: “Philadelphia” (Jonathan Demme, 1993), “Melancholia” (Lars von Trier, 2011).

Instructor(s): E. Strowick
Area: Humanities.

**AS.213.325. Johann Wolfgang von Goethe: Bridging Literature and Science. 3 Credits.**

Open to Sophomores or higher standing. This course will examine the literary and scientific works of Goethe (1749-1832). We will explore the complex relations between literature and science at a point in history where the disciplinary boundaries were more porous than they are today. In this seminar, we will read those works, in which literature and science intersect, via style or subject matter, but most importantly, via their joint philosophical underpinnings, revealing that for Goethe science and literature are not two separate trains of thought but form a highly intricate discursive web. Goethe’s oeuvre offers the unique opportunity to discuss the relations between literature and science around 1800, the formation period of “modern” natural sciences and the beginning of their domination over literature and philosophy, by analyzing one author, who straddled both realms, and who reflects on the value of scientific and literary discourses. Cross-listed with History of Science and Technology Dean’s Teaching Fellowship - Taught in English

Instructor(s): C. Domenghino
Area: Humanities.

**AS.213.362. Sigmund Freud. 3 Credits.**

The course will examine Freud’s writings from a two-fold perspective: On the one hand, we will analyze the contributions of psychoanalysis to modern thought. Lining himself up with Copernicus and Darwin, Freud considers his concept of the “unconscious” a further insult to mankind’s narcissism and revolution of thought. In this respect, psychoanalysis affects a vast array of concepts of modern thought such as subject, language, sexuality, morality, culture, history, religion and art which we will discuss alongside with key terms of psychoanalysis (unconscious, repetition, transference etc.). On the other hand, the course will address the specific relation between psychoanalysis and literature. Throughout Freud’s writings, literature enjoys vivid interest. Not only are psychoanalytic concepts (e.g. Oedipus complex, narcissism, the uncanny) crucially informed by literary texts, but also Freud’s “interpretation of Dreams” proves to be a theory of representation and reading. We will investigate the ways in which literature and psychoanalysis are involved with each other considering narrative forms, performative aspects and aspects of the genre (novel, novella). Readings and discussions in English.

Instructor(s): E. Strowick
Area: Humanities.

**AS.213.684. Aesthetics of Description.**

Since the enduring disavowal of description by Lessing, characteristics commonly assigned to description include structural endlessness and exorbitance; the simple succession of elements; the „breakdown of composition“ (Lukács) in a proliferation of details; the parity of described details; its failed ability at illusion; also its tendency to mortify, insofar as it transforms its subject into something static, stagnant. The course will undertake a critical revision of these characteristics by analyzing aesthetic debates and literary descriptions from the 18th to the 20th centuries. Topics leading the discussion will be: text-image relations; description between literature and science; observation through description; dynamization of description; motion and motionlessness; poetics of perception; performativity of description; the boredom of reading. Readings include: Bodmer, Breitinger, von Haller, Winckelmann, Lessing, Alexander von Humboldt, Hebbel, Stifter, Darwin, Ossip Mandelstam, Aby Warburg, Lukács, Peter Weiss, Peter Handke. The course will be taught in German.

Instructor(s): E. Strowick.
AS.214.356. Science and Heresy in Galileo's Italy. 3 Credits.
The class will be conducted in English. In the wake of Copernicus, the still dominant geocentric model of the cosmos was challenged in Italy by two equally brilliant but very different thinkers: Giordano Bruno, iconoclastic philosopher and theorist of magic, and Galileo Galilei, who has been called the “father of modern science.” Both of these revolutionary intellectuals faced strong opposition from within the Catholic Church: Bruno was executed as a heretic, while Galileo was forced to formally recant his heliocentric views. We will study the principal writings of both thinkers, focusing on both the literary qualities and the historical context of their works. We will also examine the cosmological visions of earlier writers, including Dante. Additional section will be offered for Italian majors (and others with a strong command of the language) in which we will read and discuss texts in Italian.
Instructor(s): J. Coleman.

AS.214.375. Documentary Production Practicum: “The Cure:” the History and Culture of Breast Cancer. 3 Credits.
This class will accompany Bernadette Wegenstein during some months of producing her feature documentary “The Cure” on the history and culture of breast cancer. It will be a hands on experience with director/producer Bernadette Wegenstein, editor/producer Patrick Wright and cinematographer Allen Moore filming at the GBMC’s Breast Care clinic, the Halsted Medical Archives, and some other Baltimore locations. This class will meet once a week, but some weeks the class will consist in the hands-on experience on the field rather than the actual class meeting.
Area: Humanities.

East Asian Studies
AS.310.303. A World Upturned: Cultures of Catastrophe in Japan. 3 Credits.
Focusing on earthquake science and earthquake lore, radioactive mutation and nuclear decimation, this course will consider the relationship between technological culture and large-scale cataclysm. In addition to treating a broad array of written, graphic, and filmic representations of Japan's past and potential catastrophes, we will also be keeping a close and careful eye on present developments in Japan's 2011 earthquake/tsunami/nuclear disaster.
Instructor(s): Staff
Area: Humanities, Social and Behavioral Sciences.

Program in Museums and Society
AS.389.275. Interpreting Collections: An Introduction to Museum Education-Community Based Learning. 3 Credits.
Part public history, part introduction to museum practices, this hands-on course invites students into a local collection to develop interpretive materials for diverse audiences. Students consider the issues and ideas that inform object-based learning and learn about the history, theory and practice of museum education. Course culminates in the creation of interpretive text for the Baltimore Museum of Industry. M&S practicum course.
Instructor(s): E. Maloney
Area: Humanities, Social and Behavioral Sciences.