DEPARTMENT OF HISTORY OF SCIENCE, TECHNOLOGY, AND MEDICINE

Stephen Weldon, Chair
Peter Soppelsa, Director of Graduate Studies
Kathleen Crowther, Director of Undergraduate Studies
625 Physical Sciences Center
601 Elm Street
Norman, OK 73019-0315
Phone: (405) 325-2213
hofsci@ou.edu
www.ou.edu/cas/hsci

General Information

The History of Science, Technology, and Medicine Department was established in 1971 by the University President's Committee on the History of Science. Since its inception, the program has been closely tied to the History of Science Collections in the University Libraries, which dates from a gift of rare books by University of Oklahoma alumnus Everette L. DeGolyer. In 1954 Duane H. D. Roller became the first Curator of the Collections (then called the DeGolyer Collection), and Professor Roller presided over the growth of an undergraduate and graduate teaching program in history of science. Since this beginning, the history of science program at the University of Oklahoma has grown to ten faculty members appointed in the department, along with one faculty in the History of Science Collections, two faculty in the Honors College, and two in the History Department, teaching a program of undergraduate courses and conferring master's and doctoral degrees. The department's mission is three-fold: to offer instruction to undergraduates; to offer instruction and guidance for graduate students; and to contribute to research in the history of science.

Our graduate program, established in 1954, is specifically designed for students who are interested in research and teaching careers in higher education, or professional positions in specialized libraries, museums, and other institutions. Students work closely with faculty in a graduate training program designed to produce historians who are scholarly, productive in research, effective in the classroom, and who have high standards of professional conduct and responsibility. Students are encouraged to adapt program materials to the wider discipline of the history of science.

Since 1983 students have had the opportunity to complete requirements for a Minor in the History of Science. In 2011, the BA in the History of Science, Technology and Medicine was approved, thereby offering OU students an undergraduate program in which to inquire into the development of scientific thought from its origins in the cultural and intellectual efforts of the ancient civilizations of Egypt, Mesopotamia, Greece and Rome, through the Islamic and Christian civilizations of the Middle Ages, to the modern period. History of science courses place strong emphasis upon both the internal growth of scientific ideas and their development within the wider political, social, economic, religious, and cultural context of Western history.

Programs & Facilities

History of Science Collections

The History of Science Collections, located on the 5th floor of Bizzell Memorial Library, is a premier research collection in its field. Holdings of nearly 100,000 volumes from every field and subject area of science, technology and medicine range chronologically from Hrabanus Maurus, *Opus de universo* (1467) to current publications in the history of science. The Darwin collection consists of all of Darwin's works in their first editions and several autographed letters, as well as hundreds of subsequent editions and translations.

OU Lynx

The educational arm of the History of Science Collections of OU Libraries is the OU Academy of the Lynx. We seek to collaborate with educators in exhibit-based learning by creating, field-testing and sharing Open Educational Resources (OER's). We invite researchers, graduate students, and others to join us as a participating educator, museum worker, amateur astronomer, student, scholar, sponsor or docent.

Programs for Academic Excellence

The history of science has been designated an area of future emphasis within the Dodge College of Arts and Sciences, in the University's Strategy for Excellence. The foundations of the University's commitment to emphasis in this field are the superb History of Science Collections and a department of twelve historians of science dedicated to a comprehensive program of teaching and research.

Through a generous endowment made by the Andrew W. Mellon Foundation, the History of Science program provides travel fellowships for visitors to make use of its resources for research in the history of science. In addition to working in the Collections, visiting fellows interact with students and faculty in the program and frequently present the results of their research to the university community.

Scholarships and Financial Aid

The Department of History of Science offers the undergraduate **Corliss E. and Esther C. Livesey Endowed Scholarship** carrying a cash stipend to outstanding history of science, technology and medicine full-time major students who have earned 15 hours of major coursework and who have a minimum overall grade point average of 3.25. Eligible students submit applications for the award.

To honor Everette L. DeGolyer, and to recognize his affiliation with the History of Science Program at the University of Oklahoma, the University awards the **Everette Lee DeGolyer History of Science Fellowship** to a graduate student in the Department of the History of Science. The Department of the History of Science nominates eligible applicants during the annual recruitment and application cycle.

The History of Science Department offers graduate assistantships as available each year. For information on scholarships and graduate assistantships, students should contact the chair of the department.

History of Science Association

The History of Science Association (HSA) is an organization comprised of the current students in the History of Science Department at the University of Oklahoma. Every graduate student in the department is a member of HSA, and undergraduate majors and minors are welcome to participate as well. Membership is also open to interested students in other graduate programs across campus. The HSA promotes history of science courses at OU through a variety of efforts, including sponsoring

speakers, coordinating a tutoring service, assisting with department participation in University undergraduate recruitment events, and arranging informal social get-togethers for students enrolled in the major or in the minor program.

Undergraduate Study

Bachelor of Arts

- Health, Medicine & Society, Bachelor of Arts
- History of Science, Technology & Medicine, Bachelor of Arts

Minor

- History of Medicine Minor
- History of Science Minor

Graduate Study

Areas of Specialization

The History of Science Program is especially strong in the following areas of specialization, because of the concentration of faculty working in the area, the availability of material resources in support of the field, and by institutional linkages with other departments and programs in allied specializations: pre-modern science; biological and social sciences in the modern world; science and religion; American science; history of technology; science, the public and popular culture; medicine, public health and biomedical science; and new media in history of science, technology and medicine.

The programs of study leading to the M.A. and Ph.D. degrees will entail the student's enrollment in history of science courses, history courses, other approved courses outside the department, and extensive use of the materials contained in the History of Science Collections.

Master of Arts

The History of Science, Technology & Medicine, Master or Arts program has a thesis option and a non-thesis option.

Dual MA-MLIS Degree Program

The Graduate College approves proposals for dual degree programs. A dual degree allows a student to receive master's degrees in two departments. The programs may be designed for a specific student or established by agreement between departments.The Master of Library and Information Studies/History of Science, Technology and Medicine Master of Arts program is an example of a dual degree program established by a department and the School of Library and Information Studies. Students must be admitted to both degrees before twelve hours are completed in one or the other. The purpose of the dual Master of Library and Information Studies and Master of Arts in the History of Science, Technology and Medicine program is to provide a course of study for those individuals planning for a career in librarianship as a science librarian, as a curator of a rare book and manuscript collection in the history of science/health sciences, or as a public historian or archivist in the history of science.

History of Science Doctoral Program

The History of Science Ph.D. program calls for a total of 90 approved credit hours beyond the baccalaureate degree, or 60 hours beyond the Masters degree, including dissertation hours. Students matriculating for the doctoral degree must demonstrate reading proficiency in at least two appropriate world languages (usually chosen from French, German, and Latin) before being admitted to candidacy.

Courses

HMS 1113 Introduction to Health, Medicine and Society 3 Credit Hours
Class explores health and disease in different cultural and historical contexts. In the first half of the class we focus on the ways individuals experience disease, examining how gender, race, ethnicity, class and sexuality shape medical knowledge about disease, individuals' lived experience, and social perceptions of sufferers. In the second half, we focus on epidemic diseases. (F, Sp) [IV-WC].

HMS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

HMS 4430 Health, Medicine, and Society Internship 1-4 Credit Hours
1 to 4 hours. Prerequisite: Student must be HMS major with Junior standing; have a minimum 2.5 GPA; and have permission of HMS internship liaison, supervising faculty, and internship granting agency. The purpose of the HMS Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organisation that is engaged in the delivery of health care to the community, or another relevant aspect of service learning. (Irreg.)

HMS 4993 Health, Medicine and Society Capstone 3 Credit Hours
Prerequisite: Senior standing. This is the senior capstone for the Health, Medicine and Society Major. We will discuss important works in the history, anthropology and sociology of medicine. You will develop a research project on a topic of your choosing and work on it throughout the course. (F) [V].

HSTM 1113 Science, Nature and Society: Historical Perspectives 3 Credit Hours
An introduction to the study of science, technology, and medicine in light of historical, philosophical, and cultural analysis. Focusing on the relationships between science, nature, and society, this class introduces some of the big questions about who we are, who we have been, and who we might become. (Irreg.) [IV-WC] .

HSTM 1313 Disasters 3 Credit Hours
How have technologies both increased and mitigated risks from natural disasters? How have human societies responded to human-made disasters and assessed the potential risks raised by new technologies? Taking a global perspective, we will examine responses to both natural and human disasters and consider the challenges to formulating fair and effective policies that minimize the risks posed by emerging technology. (Sp) [IV-WC].

HSTM 1323 History of the Geosciences 3 Credit Hours
Historical overview of the geosciences and evolving knowledge of the structure, ecosystems, and resources of our planet. We examine key figures, ideas, debates, discoveries, and scientific conflicts that have shaped the understanding of the Earth's current conditions. Students will learn about the emergence of the geoscientist's role in society and the scientific community from the 17th century to the present. (F)

HSTM 2033 Introduction to Digital Humanities 3 Credit Hours
(Crosslisted with LIS, WGS and HIST 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IV-WC].

HSTM 2133 Science and Popular Culture 3 Credit Hours
Draws on interdisciplinary perspectives to examine the interplay between science and popular culture from the Scientific Revolution to the present. Topics include representations of science, scientists, and nature in popular literature, television, films, and documentaries; the development of zoos and science museums; children and science, and science journalism. (Sp) [IV-WC].

HSTM 2423 Social and Ethical Issues in Science, Technology, Environment and Medicine 3 Credit Hours
An introduction to a range of social and ethical issues in the history of science, technology, environment and medicine. Including the social, political and ethical implications of technology and scientific knowledge, and the role they play in shaping our environment and our selves. (Irreg.) [IV-WC].

HSTM 2970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special Topics. 1 to 3 hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

HSTM 3013 History of Science to the Age of Newton 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of Western people's efforts to understand the natural world, from earliest historical times to the seventeenth century. (F, Sp, Su) [IV-WC].

HSTM 3023 History of Science Since the Seventeenth Century 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the historical and intellectual development of modern science. (F, Sp, Su) [IV-WC].

HSTM 3213 The Darwinian Revolution 3 Credit Hours
Prerequisite: Junior standing, or permission of the instructor, or one other HSTM course. The "Darwinian Revolution" was a revolution in culture as well as biology. We consider the history of the social, political, and theological issues associated with the development of evolutionary thought from the early nineteenth century to the present. (Irreg.) [IV-WC].

HSTM 3223 Gender Issues in Science, Technology and Medicine 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Historical analysis of gender issues in science, technology and medicine, and in comparison with current practices. Topics will include questions in scientific method, particularly the concept of "objectivity," bio-social theories of gender; gender issues in scientific inquiry, in the development of and engagement with technologies, and in medical thought and practice; media images; and feminist science fiction. (Irreg.) [IV-WC].

HSTM 3243 Women and Medicine 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Surveys the relationship between women and medicine in the modern period (roughly between 1750 and the present). Examines the interrelated histories of women as medical practitioners, patients and objects of medical knowledge. Also includes discussion on how women experienced illness in the past and the expectations and norms that shaped their illness experiences. Finally, a look at medical knowledge about (Sp) [IV-WC].

HSTM 3253 Race and Science 3 Credit Hours
Prerequisite: junior standing or completion of one History of Science course or permission of instructor. Examines the rise and fall of scientific conceptions of race from 1800 to the present, paying particular attention to its connections to 19th Century evolutionary theory, eugenics, the modern evolutionary synthesis, and recent genetics and genomics. Also looks at the role of cultural values associated with race in science more broadly. Course materials include films and novels as well as (F, Sp) [IV-WC].

HSTM 3263 History of Public Health 3 Credit Hours
(Crosslisted with HIST 3263) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Taking an historical perspective students explore and analyze the social, economic, political and scientific events and processes that have shaped modern public health. (F) [IV-WC].

HSTM 3273 Of Acupuncture, Medicine Men & Ayurveda: Indigenous & Non-Western Medicine in Perspective 3 Credit Hours
(Crosslisted with HIST 3273) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Introduces histories of practices and systems of medicine and healing that are variously deemed 'indigenous,' traditional,' 'non-western,' 'alternative' and 'complementary' in historical context. Students critique the historical and cultural meaning of these terms, as well as their attendant conceptions of health, disease and the body. (F) [IV-WDC].

HSTM 3283 Introduction to Disability Studies 3 Credit Hours
Prerequisite: junior standing or permission of instructor or completion of one lower-division History of Science course. Students engage text, audio and video sources to examine the social and cultural experience of disability in different times and cultures to critically assess how culture (mis)represents disability and corporeal difference. (F) [IV-WC].

HSTM 3293 Environment and Health 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course explores the complex and changing relationship between the environment and health over the past 500 years, blending environmental history, the history of ecological science, and the history of environmental movements. Because the human-made environmental changes of the twentieth century could spell our own extinction, understanding the connections between environment and health is ever more urgent. (Sp) [IV-WC].

HSTM 3313 Science and Technology in Asian History 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines science and technology in east, south, and southeast Asia from 1000 A.D. to the present. We examine the influence and interaction of knowledge traditions (especially Chinese, south Asian and Islamic), how they circulate around and beyond Asia, and interactions with European knowledge traditions, culminating in examinations of political and ethical dimensions of science and technology in contemporary Asia. (Irreg.) [IV-WDC].

HSTM 3333 Technology and Society in World History 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the history of technology since 1500. Emphasizes historical contexts and cultural meanings, not technical details, as it explores the key steps in the construction of our modern technological world. Materials include literature and film as well as non-fiction. (Sp) [IV-WC].

HSTM 3343 Revolution in Power: the Evolution of Energy Systems from Fossil Fuels to Renewables 3 Credit Hours
(Crosslisted with P E 3343) Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. This course provides an interdisciplinary perspective on energy systems in both their technical and human contexts, from fossil fuels to renewables, with particular focus on their social, culture, and environmental implications for Western society and the world. The history and evolution of the associated technologies will be discussed, with attention to non-western and indigenous perspectives on these global technological systems. (F) [IV-WC].

HSTM 3353 Science and Empire 3 Credit Hours
Prerequisite: junior standing or one previous HSCI course or permission of instructor. Examines the contested history of science and empire from both western and non-western perspectives, learning about colonial and post-colonial encounters in science, both imagined and lived. Materials include travelers' tales, explorers' accounts, fiction, and films as well as nonfiction. (Sp) [IV-WC].

HSTM 3413 Biomedical Ethics 3 Credit Hours
Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Introduces key concepts in biomedical ethics. Topics may include: the doctor/patient relationship; medical research on humans and animals; reproductive rights and technologies; medical decisions at the end of life; and the allocation of scarce resources. (Irreg.) [IV-WC].

HSTM 3423 Modern Medicine - A Historical Introduction 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines the history of modern medicine in Europe and America. Aims to connect medical ideas and practices to the broader social and cultural contexts in which they were developed. (Irreg.) [IV-WC].

HSTM 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research & Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HSTM 3443 Science in a Religious World 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An overview of major events in the intersection of science and religion from the Middle Ages to the present. A detailed look at the historical record and exploration of the background of the people involved, the social and political context, and the reasons why certain issues mattered so much. (Sp) [IV-WC].

HSTM 3453 Science and Civilization in Islam 3 Credit Hours
Prerequisite: junior standing or permission. History of scientific traditions and ideas in Islamic civilization, from the origins of Islam to the early modern period. Emphasis is on the derivation, development and transmission of Islamic science, as well as on the assimilation and influence of science within Islamic culture. (Sp) [IV-WDC].

HSTM 3463 Cold War Science 3 Credit Hours
Prerequisite: junior standing or permission. Science and technology during the Cold War, including strategic weapons and SDI, medical experiments, the space race, science in popular culture, and science and foreign policy. (Irreg.) [IV-WC].

HSTM 3473 History of Ecology and Environmentalism 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the historical development of ecology as a science and as a political stance, from the eighteenth through the twentieth century. Topics may include: climate change, population control, deforestation, globalization, resource management, and environmental ethics. (Irreg.) [IV-WC].

HSTM 3483 Technology, Politics, and International Development 3 Credit Hours
Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the interactions between politics and technology that have informed efforts to produce "developed" industrial societies around the world. Examines the emergence of development thinking and practice in Japan and the colonized world, international development and the technopolitics of decolonization, and contemporary issues in technology and development. (Irreg.) [IV-WDC].

HSTM 3493 The History of Media 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An introduction to the history of informational technologies and communications media from the printing press to the internet. Topics will include the print revolution, the advent of electronic communications, the growth of broadcast media, the development of the digital computer, and the internet boom. Course materials include novels and films as well as non-fiction. (Irreg.) [IV-WC].

HSTM 3523 History After the Internet: Exploring Digital History 3 Credit Hours
(Crosslisted with HIST 3523) Prerequisite: Junior Standing. Examines major themes, issues, and developments affecting the research, writing, analysis, preservation, and presentation of history in the digital age. Includes hands-on engagement with, and critical assessment of, the use of digital tools for conducting historical inquiry, and exploration of the circulation of historical knowledge in such venues as social media, blogs, podcasts, digital archives, online collections, and historically-themed gaming. (Sp) [IV-WC].

HSTM 3533 Science and Global Politics in the Modern Era: Cross-Cultural Perspectives 3 Credit Hours
Prerequisite: Junior standing. Focuses on interactions between professional scientists, corporate entities, advocacy groups, NGOs, the public, and the state, with case studies drawn from different national contexts in order to make cross-cultural comparisons. Students will develop an international perspective on this topic by focusing on both western and non-western national contexts. Topics may include such issues as public health; biotechnology; bioprospecting; organ trafficking; (Irreg.) [IV-WC].

HSTM 3543 Balloons, Barometers, and Ice Cores: History of Weather and Climate Science 3 Credit Hours
(Crosslisted with METR 3543) Prerequisite: Junior standing or completion of one other course in HSTM or permission of instructor. This course explores the history of meteorology and climate sciences from 1500 to the present. We investigate the role of science in humanity's relationship with weather and climate, the social and political contexts of weather sciences as they have changed over time, and contributions of these sciences to sustainability and survival on a rapidly warming planet. No science background required. (F) [IV-WC].

HSTM 3813 Science in the Ancient World 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. An examination of science in antiquity. Topics include the origins of ancient science, the transmission and interaction of various scientific traditions, the relation between science and philosophy, the development of a concept of science, and the place of science within the cultures of the period. (Irreg.) [IV-WC].

HSTM 3823 Science in Medieval Culture 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. A survey of the historical development of medieval scientific, mathematical, medical, and philosophical thought. (Irreg.) [IV-WC].

HSTM 3833 The Scientific Revolution 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the history of the "scientific revolution" of the sixteenth and seventeenth centuries. Study includes understanding debates not just about what happened in the past but about how we today define science and how we understand the place of science in the modern world. (Irreg.) [IV-WC].

HSTM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will consist of topics designated by the instructor. The topics will cover materials not usually presented in regular coursework. (F, Sp, Su)

HSTM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

HSTM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project. (Irreg.)

HSTM 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content; Maximum credit 6 hours. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

HSTM 3993 Junior Seminar 3 Credit Hours
Prerequisite: 9 hours of history of science classes and permission of instructor; if repeating course, permission of undergraduate academic adviser; May be repeated with change of content; maximum credit 6 hours. Offers students the chance to work on an extended research topic in the history of science, technology, environment and medicine. The themed seminar format will allow for small group discussion and close supervision of student projects. Students will be introduced to the methods and tools of advanced research. Seminar themes will vary. (Sp)

HSTM 4053 History of Magic 3 Credit Hours
(Crosslisted with RELS and HIST 4053) Prerequisite: Junior standing or permission of instructor. This course is an investigation of the category of magic, magical practices, and the place of magic in society from antiquity to the modern world. (Irreg.) [IV-WC].

HSTM 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HSTM 5073; Crosslisted with WGS, HIST and LIS 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HSTM 4133 Science and Literature 3 Credit Hours
(Slashlisted with HSTM 5133) Prerequisite: ENGL 1213 or EXPO 1213 or HSCI 1113, or another HSCI course, junior standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explore the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.) [IV-WC].

HSTM 4430 History of Science, Technology, & Medicine Internship 1-4 Credit Hours
1 to 4 hours. Prerequisite: Student must be HSCI major with Junior standing; have a minimum 2.5 GPA; and have permission of departmental internship liaison, supervising faculty, and internship granting agency. The HSCI Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organization, a library or archive, which is engaged in the provision of products or services that relate to the student's academic field of study. (Irreg.)

HSTM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

HSTM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

HSTM 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

HSTM 4993 Capstone in History of Science, Technology, and Medicine 3 Credit Hours
Prerequisite: junior standing and permission of instructor. This course fulfills the capstone requirement for a major in the history of science, technology and medicine. The goal of this seminar-format course is to provide students with the opportunity to further develop their skills in research, writing, and critical analysis with respect to the historical study of science. The course provides the opportunity for in-depth individualized research within the (F) [V].

HSTM 5001 Colloquium in the History of Science, Technology, and Medicine 1 Credit Hour
Prerequisite: Graduate standing; may be repeated with change of content; maximum credit six hours. The course consists of a series of presentations on various topics by different speakers, both from within and outside the department. In some cases, these may coincide with public presentations, open to the public (but addressed to a professional audience). In other cases, these may be closed discussions or evaluation meetings. (F, Sp)

HSTM 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HSTM 4073; Crosslisted with WGS, HIST and LIS 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HSTM 5133 Science and Literature 3 Credit Hours
(Slashlisted with HSTM 4133) Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explores the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.)

HSTM 5513 Advanced Studies in the History of Ancient and Medieval Science 3 Credit Hours
Prerequisite: HSTM 3013 or equivalent, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Thematic historical analyses of ancient and/or medieval foundations of science, focusing on the development of particular disciplines or scientific institutions, the relationship between science and religion, or transmission of science. Includes examination of sources and critical assessment of scholarly interpretations. (Irreg.)

HSTM 5523 Adv. Stds. In The History Of Renaissance & Early Modern Sci. 3 Credit Hours
Prerequisite: 3013 Or 3023, Or Equivalent; Or Permission Of Instructor. Advanced Studies In The History Of Renaissance And Early Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Scientific Ideas And Practices In The Scientific Revolution And The Enlightenment, 16th-18th Cen- Turies. Includes Examination Of Sources And Critical Assessment Of Scholarly Interpretations. (Irreg.)

HSTM 5533 Advanced Studies In The History Of Modern Science 3 Credit Hours
Prerequisite: 3023, Or Equivalent Or Permission Of Instructor. Advanced Studies In The History Of Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Modern Science And Culture Focus- Ing On The European And American Development And Professional- Ization Of Scientific Disciplines, Interdisciplinary Relationships Among The Sciences, And Intersections Between Scientific And Pub- Lic Culture. Includes Examination Of Sources And Critical Assess- (Irreg.)

HSTM 5550 Topics In The History Of Science 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate Standing Or Permission Of Instructor. Topics In The History Of Science. 1 To 3 Hours.May Be Repeated With Change Of Content; Maximum Credit Twelve Hours. Topics Of Scholarly Interest In The History Of Science.

HSTM 5613 Issues and Methods in the Digital Humanities 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides a graduate-level introduction to the central issues, methods, and tools in the emerging field of the digital humanities. Digital humanities is an interdisciplinary set of methods, concepts, values, and practices that enable scholars to create and apply new technologies to answer social, cultural, and historical questions. (Irreg.)

HSTM 5623 Practicum/Internship in the Digital Humanities 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit 9 hours. A practical, project-based internship, focused on the design and development of a project in the digital humanities under the close supervision of a faculty member. (F, Sp)

HSTM 5713 History of Medicine Seminar 3 Credit Hours
Prerequisite: Graduate standing. This seminar is a graduate-level introduction to the history of medicine. We will begin with an examination of the origins and development of the history of medicine as an academic discipline, then delve into some of the big themes and questions that have shaped the field. (Irreg.)

HSTM 5723 History of Technology Seminar 3 Credit Hours
Prerequisite: Graduate standing. This course introduces graduate students to the study of technology in its historical contexts. Based in the history of technology, it also introduces students to tools and concepts from cognate fields, such as environmental history, urban studies, mobility studies, and more. (Irreg.)

HSTM 5960 Directed Readings in the History of Science 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of content; maximum credit six hours toward M.A. degree, 12 hours toward Ph.D. degree. Intensive readings in a selected area of the history of science, under the direction of a graduate faculty member. (F, Sp, Su)

HSTM 5970 Seminar: Research, Criticism and Analysis 2-3 Credit Hours
2 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Fundamentals of investigation and exposition in the history of science. (F, Sp)

HSTM 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

HSTM 5990 Special Studies 3-5 Credit Hours
3 to 5 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit nine hours. Specialized studies in the history of science. Individual research culminating in the preparation of a research paper. (F, Sp, Su)

HSTM 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

HSTM 6970 Seminar in the History of Science 2-3 Credit Hours
2 to 3 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit 15 hours. Advanced study and historical criticism in specialized areas. (F, Sp)

HSTM 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

HSTM 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)