INTRODUCTORY COURSES

Fulfill two Liberal Education requirements with one course. We offer six such courses, two in the fall, four in the spring. They can be taken independently of one another. In four of them, you have the option of taking the course either at the 1000 or at the 300 level. Five courses are four credits and one is three credits.

HSci 1011 Digital World. Spring, MWF 11:15–12:05 pm. HIS/TS pending. 3 credits. Tom Misa. Pending
Essential knowledge and critical perspective to understand today’s Digital World. The history and social impact of the digital revolution, including security, surveillance, gaming, "reality," and global internet governance.

Origins of life on earth; evolution; ecosystem; environmental degradation, species regeneration; the Guns, Germs and Steel hypothesis; disease threats (e.g., bird flu).

History of technology from earliest times to the Industrial Revolution. Neolithic Revolution; Bronze and Iron Ages; ancient civilizations; Greece, Rome, Middle Ages, and Renaissance.

Relations of technology to culture since the Industrial Revolution. Diffusion of Industrial Revolution; modes of adaptation by different cultures; and social impact of technology, particularly on Western society.

HSci 1814/3814 Revolutions in Science: The Babylonians to Newton. Fall, MWF 10:10–11:00 am. HIS/GP. Victor Boantza.
Development and changing nature of the sciences in cultural and intellectual contexts. Babylonian and ancient Greek science; decline and transmission of science in the Middle Ages; the Scientific Revolution from Copernicus to Newton.

HSci 1815/3815 Revolutions in Science: Lavoisier, Darwin, Einstein. Spring, MWF 10:10–11:00 am. HIS/GP. Jonathan Clemens.
Lavoisier and the chemical revolution; Darwin and evolution through natural selection; Einstein and the relativity and quantum revolutions.

* Also offered alternate semesters for 3 credits: M 6:15-9:00 pm; W 6:15–9:00 pm. Mary M. Thomas.

ADVANCED UNDERGRADUATE COURSES

The following courses are suitable for upper division undergraduate and graduate students from all colleges of the University. These courses are all three credits.

What will the future bring? Utopia? Apocalypse? This course explores the future, as imagined in science fiction written between 1890 and 1990, as a way to understand changing attitudes towards science and technology.

HSci 2333V Honors: Science and Technology in the American Century. Fall, MW 1:25–2:15 pm. HIS/CIV/WI. Sally Gregory Kohlstedt.
Investigate science and technology through intellectual, political and social history with topics on professionalization, international competition, and the emergence of technoscience.

HSci 3211/5211 Biology and Culture in the 19th and 20th Centuries. Fall, TTh 11:15–12:30 pm. HIS/CIV. Mark Borrello.
Changing conceptions of life and aims and methods of biology; changing relationships between biology and the physical and social sciences; broader intellectual and cultural dimensions of developments in biology.

HSci 3242/5242 The Darwinian Revolution. Spring, TTh 11:15–12:30 pm. HIS**. Mark Borrello.
Development of evolutionary thought in the 19th and 20th centuries emphasizing Darwin’s theory of evolution by natural selection; scientific, economic, political, religious, and philosophical dimensions of Darwinism.

HSci 3244/5244 History of Ecology and Environmentalism. Fall, TTh 11:15–12:30 pm. HIS/ENV**. Susan Jones.
Ecological ideas from 18th-century natural theology to contemporary ecology; historical ecology of disease; connections between ecology and environmentalism; changing ideas about the relationship between humans and "nature."

HSci 3331 Technology and American Culture. Spring, MWF 12:20–1:10 pm. HIS/TS**. Nicholas Buchanan.
Growth of technology in America in its cultural and intellectual contexts from the colonial period to the present. Topics include the origins and nature of technological change; the interaction of science and technology; responses to technological change.

HSci 3332 Science and American Culture. Spring, MW 11:15–12:30 pm. HIS/DSJ. Sally Gregory Kohlstedt.
Development of American science from Native American traditions to world leadership following themes of science and religion, knowledge of gender and race, and understanding of life and our physical universe.

HSci 3401/5401 Ethics in Science and Technology. Fall, MW 11:15–12:05 pm. HIS/CIV**. Nicholas Buchanan.
Examination of ethical questions in science and technology using historical cases; formulation by students of personal ethical standards relevant to their vocations and resolution of ethical issues through discussion.

Relations between science and the European Enlightenment. Themes include Newtonianism, automatism, mesmerism, science and spectacle, classification and human diversity, imperialism and revolution.

** 5000-level classes do not satisfy LE requirement.
HSci 4321/CSci 4921 History of Computing. Fall, TTh 1:00-2:15 pm, HIS/TS. Jonathan Clemens.
Developments in the last 150 years: mechanical, electronic, digital and analog computing; science, commerce and cold war; software and AI; personal computing and the networked world; the "digital divide" and international issues.

Undergraduate Minor: HSTM
The Program in the History of Science, Technology, and Medicine (HSTM) offers an undergraduate minor. The minor requires 14 credits from 3XXX to 5XXX-level courses. The Director of Undergraduate Studies (DUGS), Jole Shackelford, must approve your program (511 Diehl Hall, 612.624.4499, shack001@umn.edu).
For additional information, please call, visit, or e-mail Barbara Eastwold, program administrator; Jole Shackelford, DUGS; or the instructor of the course that interests you. See above for contact information. Information is also available at www.hstm.umn.edu.

 Liberal Education Requirements
Historical Perspectives (HIS)
Global Perspectives (GP)
Civic Life and Ethics (CIV)
Diversity/Social Justice in the U.S. (DSJ)
Environment (ENV)
Technology and Society (TS)
Writing Intensive (WI)
HSci 1011: HIS, TS (pending)
HSci 1212: HIS, ENV
HSci 1714/3714: HIS, TS
HSci 1715/3715: HIS, TS
HSci 1814/3814: HIS, GP
HSci 1815/3815: HIS, GP
HSci 2333V: HIS, CIV, WI
HSci 3211: HIS, CIV
HSci 3242: HIS
HSci 3244: HIS, ENV
HSci 3331: HIS, TS
HSci 3332: HIS, DSJ
HSci 3401: HIS, CIV
HSci 3611: HIS, GP
HSci 3421: HIS, CIV
HSci 4121: WI
HSci 4321: HIS, TS
HSci 4455: HIS, DSJ

May 2015