SCIENCE IN HUMAN CULTURE
Winter Quarter 2011 Undergraduate Course Offerings – Long Version

Available from http://www.shc.northwestern.edu/undergraduate/courses.html.

The following is a list and description of course that may be counted toward the SHC adjunct major or minor. You may also petition the SHC Director to count a course not listed here.

Please also refer to the "Yearly Course Planner" for the tentative and partial list of SHC courses for Spring 2011.

SHC students may **pre-register** for the **core courses** for the major that are being offered this quarter:

> History 2751-1: History of Western Science and Medicine: Origins in Early Modern Europe (Francesca Bordogna)
>
> Phil 268: Ethics and the Environment (Mark Sheldon)

SHC students may also **pre-register** for the special classes being offered by **SHC's own visiting faculty** this quarter:

> History 392: Topics in History: History of the Environment (Tania Munz)
>
> Sociol 376: Topics in Sociological Analysis: Technology and Society (Tom Waidzunas)

NOTE: If you find you are not permitted to pre-register for the above courses, then you may need to request a **permission number**. You can contact the following for more information:

HISTORY, Susan Hall, susan-hall@northwestern.edu
PHILOSOPHY, Judith Kasen, j-kasen@northwestern.edu
SOCIOLOGY, Michelle Flowers, m-flowers@northwestern.edu

ANTHROPOLOGY

Anthro 101-6-21-LEC(22714)
Freshman Seminar: Anthropology of Time

TuTh 2:00PM - 3:20PM	Kresge Centennial Hall 2-430	Caroline Bledsoe

Course description:
This seminar for freshmen will stress critical thinking and writing. Its theme will be deriving and applying social and cultural frameworks for understanding the dynamics of time or, more generally, temporalities. Ideas about time pervade human experience. Time

also provide templates for academic theory -- anthropological theory of the past, for example, depicted societies in an evolutionary continuum from primitive to modern. Among the domains in which temporal dimensions of experience loom large are bodily and farming cycles, memory, history, and ritual. The forms that time and temporalities can take, however, are immensely variant. The course will touch on these and other themes. Of particular interest will be society's views of the ordering and pacing of life events. The course will center on an ethnographic research project based on field notes, observations, and participant observation. Sessions and readings are designed to work toward this, focusing on ideas of time, plus skills in framing a research question, developing a bibliography of readings to accompany it, and establishing a point of view.

Anthro 101-6-22-LEC(26937)
Freshman Seminar: Anthropology & the Environment
MoWe 11:00AM - 12:20PM Annenberg Hall G28 Elizabeth Brumfiel
Anthropology has a long-standing interest in the interaction of humans with their environments. Traditionally, ecological anthropologists have focused upon how humans adjusted to their environments through cultural and biological adaptation. However, because of pressing contemporary environmental issues, this course focuses upon how humans have changed the natural environment in the past, how humans are currently changing it, and what can be done to halt environmental deterioration. Topics to be considered include traditional subsistence patterns, population stability and growth, food supplies, consumerism, environmental regulation, and the impact that heightened ecological awareness (deep ecology, ecofeminism, etc.) might have on contemporary human behavior.

Anthro 390-0-21-LEC(23175)
Topics in Anthropology: Forensic Anthropology

TuTh 12:30PM – 1:50PM	Anthropology Seminar Room	Erin Waxenbaum Dennison

This course provides a broad overview of forensic anthropology - an applied subfield of biological anthropology. Forensic anthropology focuses traditional skeletal biology on problems of medicolegal significance, primarily in determining personal identity and assisting in the cause of death assessment from human remains. In this course we will discuss the full range of issues associated with human skeletal identification from trauma analysis to the identification of individuals in mass disasters. These problems will serve as a model for understanding the broader aspects of applied anthropology.

BIOLOGY

Biol_Sci 104-0-20-LEC(22023)
Plant-People Interactions

TuTh 12:30PM - 1:50PM	Tech Institute Lecture Room 2	Christina Russin

We will cover the various ways in which people use plants, the importance of plants to people and the environment, and concerns regarding human use of the biosphere and possible solutions.

Biol_Sci 105-6-20-LEC(23479)
Freshman Seminar: Origins of American Obesity

TuTh 2:00PM - 3:20PM	Cook Hall 4-123	Garth Fowler, Michele McDonough

In the late 1970s, approximately 15% of US Americans aged 20 - 74 were obese. Today that figure is over 33%, or approximately 100 million Americans!!! This trend continues despite our awareness of the health problems and costs associated with being obese. Discussions in this course will focus on variables influencing obesity. We will briefly review historical trends, touch upon biological influences on weight, and evaluate how psychology and economics may contribute to our eating behaviors and affect public health policy. Questions that will be explored include: What factors influence obesity? What realistically, can be/should be done to reduce the "obesity epidemic"? Is there a simple "cure" for obesity?

Biol_Sci 106-6-20-LEC(21840)
Freshman Seminar: Genetically Modified Foods

TuTh 9:30AM - 10:50AM	Technological Institute L168	Christina Russin

This topic has become a lightning rod in recent years for biotechnologists and environmentalists alike. In this course, we will explore what it means to genetically engineer food crops and discuss the benefits and drawbacks of this technology. Our topics will include specific examples of engineered crops such as golden rice, StarLink corn, and Terminator seeds, as well as an exploration of individual opinion on labeling laws and the risks associated with this technology.

Biol_Sci 108-6-20-LEC(21841)
Freshman Seminar: Science/Pseudoscience/Hoaxes

TuTh 10:30AM - 11:50AM	Technological Institute M128	Erwin Goldberg

Science can be good, bad or bogus. How can we tell? What is scientific misconduct? For many, news reports are the main source of scientific information. But much of this is pseudoscience. How do we distinguish science and pseudoscience? Are they related? These are the questions to be addressed in this course by student presentations and writing assignments. Specific topics include but are not limited to: Stem cell research - for good or evil; Global warming, a threat to the planet?; Should we consume genetically modified foods?; Cloning - copy your pet?; What is alternative medicine?; Intelligent design - fact or fiction?; Alchemy, past and present.

CHEMISTRY

Chemistry 105-6, Sec. 21 (21770)
TECHNOLOGY, MEDICINE, and HEALTH CARE

TuTh 11:00AM – 12:20PM	Technological Institute K126	James Arthur Ibers

E-Mail: ibers@chem.northwestern.edu

"Technology, Medicine, and Health Care" is a vast subject that conjures up many questions. For example, can the improvements in medical care brought about by stethoscope to magnetic resonance imaging (MRI) be sustained? How can the technological and humanistic features of medicine be kept in balance? If medical technology contributes approximately 50% to the cost of American health care then why is it not a part of the national debate? Can the nation afford today's evolving medical technologies? What do these technologies do to the patient/doctor relationship? Is some form of "rationing" of medical benefits inevitable? If so, who decides on priorities and how? There are no simple answers to these and related questions because basic science, technology, the medical instrument industry, government regulatory agencies, the law, domestic politics, the media, the advertising industry, and cultural warfare, to name a few, are all involved. Nevertheless, in this course we will try to find some answers that are important to all of us, not just to premeds(!), because each of us depends on medical advances and an effective health care system for a longer and higher quality life.

COURSE STRUCTURE: This is not a lecture course! This is not a political science course! The course involves class discussions and writing. Class discussions will be derived from the reading assignments in the texts and from relevant articles selected by students. These articles should be drawn from sources such as the "Perspectives" section of The New England Journal of Medicine, the "Commentaries" section of The Journal of the American Medical Association, or the "Comment" section of The Lancet, where a wide range of current, relevant topics will be found. Everyone is expected to attend every scheduled class prepared to take part in these discussions.

COMMUNICATION STUDIES

Comm-St 394-0- 21-LEC(24920)
Communication Studies Research Seminar: Places of Invention

Tu 2:00PM - 4:50PM	Frances Searle Building 3220	Jennifer Light

The relationship between place and invention, past and present, is a subject of growing interest to scholars in communication, architecture, history, anthropology, psychology, planning, economics, geography, sociology, management, and law. Places of Invention introduces students to this multidisciplinary field with a focus on spaces of scientific and technological innovation in the US since 1900. As a junior seminar, the course emphasizes research and writing skills. We devote approximately 2/3 of class time to discussing the readings and other activities, and 1/3 to reflections on the practice of research and writing. Throughout the quarter short assignments will help students build towards their final project, which is a 25-page paper on a course-related topic of their choosing.

ECONOMICS

Econ 318-0-20-LEC(22389)
History of Economic Thought

TuTh 11:00AM - 12:20PM	Tech Institute Lecture Room 5	Laura Kiesling

Development of economic thought and economic methodology from the advent of the mercantilists to the formation of current schools of economics. The course will focus on the evolution of economics as a body of thought, with strong emphasis the movement from classical economics to neoclassical economics as a foundation for modern economic theory. This course is intended to be a capstone to your economics major, to be taken senior year, after the completion of the major's core classes and several electives.

ENVIRONMENTAL POLICY

Envr_Pol 390-020-LEC(26527)
Special Topics in Environmental Policy and Culture: Conservation in Changing World: Humans and Animal Behavior

Mo 3:00PM - 5:50PM	University Hall 121	Staff

The goal of this course is to introduce students to research on how humans and animals interact, in order to understand conservation and policy. Accomplishing scientifically sound, yet socially and economically acceptable conservation of biodiversity will be a key challenge over the next 50 years. People and animals interact in a wide variety of settings, ranging from rural areas in developing countries to urban environments. In this class, we will consider what types of interactions occur, the impact those interactions have on behavior (of animals and people), and how to ensure human and animal welfare in each of these environments. The course will culminate with group research, presentations, and structured discussions on how interactions with humans have influenced a species in recent history, and student recommendations for conservation policies going forward. Major topics covered are: Principles of Animal Behavior, Role of animal behavior in conservation, wildlife in developing countries, urban wildlife. Note: Dr. Carson and Dr. Magle are conservation researchers at Chicago Lincoln Park Zoo.

Envr_Pol 394-0- 20-LEC(22985)
Professional Linkage Seminar: The Policy & Science of Environmental Restoration

Th 3:00PM - 5:50PM	University Hall 121	Stephen Packard

Science and Policy of Ecosystem Conservation. This seminar will begin with a review of the biodiversity and ecosystem dynamics of the prairies, savannas, woodlands and wetlands of the central North American "tallgrass region." We'll then focus on the local ecological conservation strategies and efforts in "Chicago Wilderness" - including the major ecosystem restoration and management challenges. As soon as the group has generally mastered this background, we will explore opportunities to work collaboratively with ongoing projects. We will choose one or a few sites, regions and problems where our joint skills can make a substantial difference. These real world

opportunities will likely include components of biology, community relations, communications, etc. Students will form one or more project teams and develop materials (written, graphic, printed, spoken, website and or video) and then test these in the real world of local conservation. NOTE: Stephen Packard is the Director of the Chicago Chapter of the Audubon Society and author of The Tallgrass Restoration Handbook for Prairies, Savannas, and Woodlands

Envr_Pol 395-20-LEC(22987) [co-listed as Poli_Sci 395-0-23]
Special Topics Seminar: Global Climate Change: Policy and Society

Tu 2:00PM - 4:50PM	University Hall 318	Yael Wolinsky

The goal of this course is to examine global climate change both as a policy issue and as a phenomenon that has affected society and culture. We will compare climate change policy-making at the international, national, state, and local levels. We will examine several dimensions of climate change policies including reaction to scientific information, evaluation of costs versus benefits under uncertainty, leadership, and openness to adaptation. We will then look at how society has reacted to policy-making on climate change. We will compare trends in public attitudes on climate change and examine the relationship between public policy and civic action. We will finally look at how the issue of climate change has spread beyond politics and is finding new expressions in the arts, architecture, and other realms of culture.

GLOBAL HEALTH

Gbl_Hlth 302-0-20-LEC(26845)
Global Bioethics

Tu 6:00PM - 9:00PM	Kresge Centennial Hall 2-410	Kearsley Stewart

Bioethics increasingly requires an interdisciplinary approach. Over the past three decades, biomedicine has acquired new social and economic powers, health resources are now expensive and scarce, and political concerns have developed over the equitable allocation of resources. The interconnectedness between clinical medicine, research medicine, public health, and the public and private funding of research demands a new approach to bioethics. Globalization creates even more complexities. Infectious diseases, such as HIV/AIDS and SARS, challenge all aspects of the delivery of biomedical and public health care. An emerging commercialized market in organs for transplantation presents new ethical dilemmas. Funding agencies in resource-rich countries attempt to regulate research in resource-poor countries. Even the definition of death may be controversial when considered in an international context. We will discuss reproductive health issues, such as abortion and genital cutting, in a global context. The course will conclude by considering evidence for the emergence of this new discipline - global bioethics. Is there a need for a new global perspective on bioethics? If so, who should define the debate, who should regulate the organizations that oversee it, who should enforce those regulations, and who should fund this effort? How do we achieve a truly global consensus on bioethics?

GENDER STUDIES

Gndr_St 332-0-20-LEC(26558)
Gender, Sexuality, and Health Activism

TuTh 2:00PM - 3:20PM	Kresge Centennial Hall 2-359	Amy Partridge

How do conceptions of "health" relate to ideological assumptions about gender, race, class, and sexuality? In this course we will explore these questions through a close examination of activist movements that have attempted to challenge contemporary conceptions of health and models of disease. Case studies will include Margaret Sanger's Birth Control Movement, the 1970s Women's Health Movement, the "Pro-Life" movement, AIDS and breast cancer activism, and feminist responses to the "epidemic" of anorexia in the 1980s and the (gendered) practice of "cosmetic pharmacology" in the present. In each case, we will consider how activists frame the problem, the tactics they use to mobilize a diverse group of social actors around the problem, and their success in creating a social movement that challenges contemporary medical models and the ideological assumptions that inform them. The course also introduces students to recent interdisciplinary scholarship on new social movements.

Gndr_St 374-0-20-LEC(26597)
Gender, Sexuality, and Digital Technologies

Th 11:00AM - 1:50PM	Kresge Centennial Hall 2-359	Jillana Enteen

Much recent fiction, film and theory are concerned with representing the Internet and technological development. While technology is frequently considered to be gender and race neutral, the ways in which it is depicted and deployed reflect the ideologies of developers and participants. This course will examine how virtual media is sexed, raced, and gendered in cultural discourses. Our analysis will center on the ways in which race and gender and sexuality are represented, imagined, stereotyped. Guiding questions will include the following: What are the dominant narratives about the Internet and computer based technologies? What and how are these assumptions deployed via the Internet? How have virtual technologies challenged experiences of language, gender, community and identity? This class includes lab work, electronic discussion, and internet participation through Youtube.com. In addition, there will be guest speakers/lab teachers.
Note: our task is to study cultural aspects of electronic communication, so no previous production or design experience is necessary.

HISTORY

History 102-6-20-LEC(22021)
Freshman Seminar: Humans, Superhumans, Posthumans

TuTh 2:00PM - 3:20PM	University Library 3722	Francesca Bordogna

What does it mean to be human? How have scientists, philosophers, humanists, and writers identified the qualities that define human nature in the last three centuries? We will address this question by exploring attempts for engineering new forms of human

beings by means of extending and radically altering the human body, brain, and mind. We will begin by studying eighteenth and nineteenth century proposals for creating humans or human-like creatures out of machine parts or of animal tissues. Next we will turn to late nineteenth-century psychological and philosophical efforts to transform humanity into a higher race of "supermen." In the last part of the course we will explore the promise and peril of deep electronic brain implants and of a wide array of digital and biomedical technologies which neuroscientists, molecular biologists, and groups of imaginative visionaries use - or hope they will be able to use in the near future - in the making of "cyborgs," and even "posthumans," that is, hybrid creatures who ideally will be able some day to dispense with biological bodies. Scientific, philosophical, and pseudo-scientific efforts to go beyond human nature will provide a platform for a reflection on the varying features that people in the past, and today, have identified as essential to human nature.

*****Core course for the SHC major*****
History 275-101-LEC(27579)
History of Western Science & Medicine, Origins in Early Modern Europe

TuTh 11:00AM - 12:20PM	Technological Institute MG28	Francesca Bordogna

This course examines the birth of a revolutionary new form of inquiry in early modern Europe: science and scientific medicine. The "scientific revolution" brought a new vision of the universe, new mechanical theories of nature, and novel ways of thinking about the human body and its relations to the soul. After tracing ancient Greek approaches to medicine, physics, the natural sciences, and mathematics, we will turn to the central figures of the scientific revolution: Bacon, Descartes, Galileo, and Newton. Questions we will ask include: How did early modern science differ from previous ways of contemplating, observing, and interrogating nature? How did the new mechanical and natural philosophers distinguish their new sciences from religion, magic, and "pseudo-sciences" such as astrology? And what impact did political events and social conventions of the day have on science? Our goal will be to trace the emergence not only of new theories about natural phenomena, but also of new methods and of new assumptions about the nature of evidence, and what could be counted as valid scientific knowledge.

*****SHC Visiting Faculty Member*****
History 392-0-21-LEC(22783)
Topics in History: History of the Environment

TuTh 4:00PM - 5:20PM	University Hall 312	Tania Munz

From the industrial revolution to the establishment of major urban spaces to the recent oil spill in the Gulf of Mexico, the natural environment has undergone profound changes ever the past 250 years. This course introduces students to major approaches in the history of the environment. Broadly speaking, environmental history examines interactions between humans and their environments; culture and nature; technology and the land. We'll investigate these oppositions from a historical perspective to see how notions of science, progress, nature, and sustainability have shaped our understanding of the land and ourselves. Since this is a vast field, we will take a topical approach and focus

on especially relevant themes, such as water, animals and wilderness, frontiers, catastrophes, cities, and food.

History 392-0-32-LEC(27602)
Topics in History: Nature and the Supernatural in Medieval Thought

TuTh 11:00AM - 12:20PM	University Library 3722	David Shyovitz

In the popular imagination, there is a widespread tendency to think of medieval people as superstitious and naïve-as privileging faith over reason, magic over science, the supernatural over the natural. But this approach tends to hold medieval thinkers and ideas up to an anachronistic standard. "Nature" and the "supernatural" had a range of competing valences during the Middle Ages-as, indeed, they do today. In this course, we will explore the ways in which an array of Jewish, Christian, and Islamic thinkers drew the boundaries between the natural and the supernatural, and investigate the implications those boundaries had for some of the key scientific and theological questions of the era. We will also chart the connections between abstract "intellectual history" and the specific social and cultural contexts within which ideas are articulated¿by exploring intellectual contacts, and controversies, between distinct religious communities; by studying the legal, literary, and ritual implications of ideas about the natural world; and by examining the power dynamics that emerged from specific definitions of what was natural, what was supernatural, and what was "unnatural." This course will focus on an array of primary texts (all in English translation), including medical and scientific tracts, books of magical spells, legal documents, exegetical and theological writings, and so on. Specific topics to be addressed include the ostensible "conflict" between science and religion, debates over the efficacy of amulets and astrology, the existence and significance of monsters, cryptozoology and "wonders of nature," angelology and demonology, trial by ordeal, and so on.

PHILOSOPHY

Phil 254-0-20-LEC(26987)
Introduction to Philosophy of the Natural Sciences

TuTh 10:00AM - 11:20AM	Kresge Centennial Hall 2-345	Axel Mueller

Description: Philosophy of science tries to give systematic answers to questions about science, and this course will provide an introduction to some of these, in particular regarding standard theories in the natural sciences, like physics, chemistry, biology. However, no previous knowledge of any specific science is required; the cases will only remain at an elementary commonsense level and serve as illustrations of certain philosophical quandaries. For example, one might wonder why exactly an agnostic but scientifically minded person ought to believe in strings, unverifiable by direct experiment as they are, while he or she thinks it's OK not to believe in other non-verifiable entities like God. Similarly, one might wonder what the difference between creationism and standard evolutionary biology is that justifies regarding one as a correct description of nature and the other an optional system of belief. The former is a metaphysical question that responds to our expectation that scientific theories tell us how the world is, even

when that means telling us about invisibly small or unreachably remote parts of nature and the universe. The latter is am epistemological question that responds to our expectation that science is an excellent example of objectivity, in the sense that when something is established following the methods good scientists use, then we ought to believe it. The course will try to introduce in both sorts of issues raised by modern natural science, the metaphysical and the epistemological ones; that is, it will concentrate on methodological questions and the question of realism. We will be guided by nested "what does it take"-questions. For example: What does it take for a system of sentences to count as a good scientific theory? What does it take for a scientific theory to be testable by observational and experimental data (and, by the way: what does it take for certain series of experiences to count as data or observations?)? What does it take for a given theory to be better supported by the available evidence than its competitors? What does it take for a given theory to explain the known phenomena in an area of knowledge? What does it take for an explanatory scientific theory to be credited with reference to underlying structures of reality? We will begin with a brief overview of the scientific revolution of the 16th and 17 th century, and then turn to the treatment of certain problems in the contemporary literature, like the problem of induction, the problem of the underdetermination of theory choice by the available data, the problem of rationality and conceptual change, the problem of realism.

Core course for the SHC major*
Phil 268-0-20-LEC(27009)
Ethics and the Environment

MoWe 3:30PM - 4:50PM	Fisk Hall 217	Mark Sheldon

Description TBA.

Phil 310-0-20-LEC(27018)
Studies in Ancient Philosophy: Advanced Logic and Scientific Methodology

TuTh 2:00PM - 3:20PM	Kresge Centennial Hall 2-345	David Ebrey

In this course we will study Aristotle's logic, epistemology, and scientific methodology by carefully working through his Prior and Posterior Analytics. In the Prior Analytics Aristotle presents the first formal logic found in Western philosophy. We will learn how this logic works and examine how Aristotle thought about logic. In the Posterior Analytics Aristotle claims that scientific knowledge involves an application of formal logic. We will examine what he thinks is involved in scientific knowledge and how we acquire it.

PHYSICS

Physics 110-6, Sec. 20 (27514)
BIG SCIENCE: IS IT WORTH THE COST?

TTh 2:00PM – 3:20PM	Technological Institute M166	Mayda Velasco

E-mail: mvelasco@lotus.phys.northwestern.edu
It is hard not to pay attention to the ongoing enormous scale of scientific research. The development of big science has been central to the diversification and growth of science, but has significantly change the basic principles and operation of scientific endeavors. One of the reasons is that it is characterized by large-scale instruments and facilities, supported by government funds or international agencies, in which research is conducted by large teams of scientists and technicians. Other changes are cause to certain extent by the fact that big science is judge and driven/stopped by public opinion, complicated international relations, business interest due to potential technology transfer value, etc. Even though big science started as a military affair with the Manhattan project, with time it has become present in most fields. For example, biological sciences has the human genome program, high energy physics has the large hadron collider facility in Europe, renewable energy research has the ITER fusion reactor, astronomy had the Hubble Space Telescope, the Apollo program... the list goes on. This course will deal with the issues that caused the development of big science and investigate the consequence, not only to the research aspects, but its impact in academia, economy, politics, media, technology transfer, sociology, etc. By the end of the course, each student will have enough information to form an educated opinion on whether or not big science is worth the cost and sustainable in the long term on its current form.

Physics & Astronomy 110-6, Sec. 21 (27515)
WATERWORLD OR STAR TREK: WHAT'S OUR ENERGY FUTURE?

TTh 3:30PM - 4:50PM	2122 Sheridan Rd Classroom 231	Chris Jacobsen

E-Mail: c-jacobsen@northwestern.edu
Over 100 years, we will have used up a substantial fraction of fossil fuels formed over 100 million years (that's like one hour in your lifetime). What movie does our future look like: Waterworld, or Star Trek, or something else? After examining current energy usage and sources, we'll look at the possibilities for the future. We'll consider what science allows, and what's socially and economically desirable.

POLITICAL SCIENCE

Poli_Sci 395-0-23-LEC(23377) [co-listed as Envr_Pol 395-20]
Political Research Seminar: Global Climate Change: Policy & Society

Tu 2:00PM - 4:50PM	University Hall 318	Yael Wolinsky

The goal of this course is to examine global climate change both as a policy issue and as a phenomenon that has affected society and culture. We will compare climate change policy-making at the international, national, state, and local levels. We will examine several dimensions of climate change policies including reaction to scientific information, evaluation of costs versus benefits under uncertainty, leadership, and openness to adaptation. We will then look at how society has reacted to policy-making on climate change. We will compare trends in public attitudes on climate change and examine the relationship between public policy and civic action. We will finally look at how the issue of climate change has spread beyond politics and is finding new expressions in the arts, architecture, and other realms of culture.

SOCIOLOGY

Sociol 101-6-20-LEC(21471)
Freshman Seminar: Sociology of Climate Change

TuTh 12:30PM - 1:50PM	Annenberg Hall G31	Jessica Koski

Media coverage of climate change and climate-related issues, including forced migration, environmental degradation, food security, water resources, energy production and consumption, and public health, has grown exponentially throughout the past decade. Climate change is arguably the most hotly debated, if not the most prominent, topic of our day. Much of this debate focuses on climate change as a *scientific* problem: the physics of the greenhouse effect, the global carbon cycle, future climate forecasts, and scientific uncertainty. This course focuses instead on climate change as a *social* problem, one with both human roots and a significant human impact. Re-conceptualizing climate change a social problem raises questions often neglected in public debate. Most basically—how do particular forms of social organization and practice contribute to climate change? Less obviously but equally importantly—how is climate change impacting social organization and cultural practices? Finally, how have various groups responded to climate change and climate-related effects? These three questions serve as the foundation for this course. In addition, this course uses the case of climate change to explore a number of topics of broader sociological interest: how we define the boundary between nature and culture, the relationship between science and politics, the role of science and scientific experts in social movements, and questions of environmental justice. Successful completion of this course will provide students with not only a basic introduction to sociology, but also exposure to central debates in environmental sociology, social movements, and the sociology of science and technology. Students will also develop skills necessary to critically evaluate climate science and debate, including proposed policy options.

Sociol 276-0-20-LEC(27147)
Introductory Topics in Sociology: Environment & Society

TuTh 11:00AM - 12:20PM	Leverone Hall AUD/OwenLCoon	Susan Thistle

Overview of the interactions between societies and the natural environment. Examines both key environmental problems, like climate change and oil spills, and possible solutions, and the roles played by different social structures and groups in shaping both issues.

Sociol 320-0- 20-LEC(27721)
Global Threats, Law and Politics

TuTh 2:00PM - 3:20PM	Frances Searle Building 2107	Gregoire Mallard

This course examines major threats to human security, mainly nuclear proliferation, genocide, terrorism and oppression of minorities, and how these threats can be prevented by legal, political and social mechanisms.

SHC Visiting Faculty Member*
Sociol 376-0-22-LEC(27155)
Topics in Sociological Analysis: Technology and Society

MoWe 11:00AM - 12:20PM	555 Clark 00B01	Thomas Waidzunas

Many narratives circulate today about how technology has revolutionized society. A common story often goes that an idea springs forth from the mind of a genius, who single-handedly invents and transforms our world. Yet, when we look more closely at innovations and their effects, we see that technologies and societies are interwoven in complex processes of sociotechnical change. Technologies, developed through group efforts and built on socially produced systems of standardization, are social constructions shaped by a wide array of powerful actors, social movements, and cultural influences, often through controversy. Meanwhile, what it means to be a human being is continually reshaped by the development of our technologies. In this course, we will use sociological approaches to explore these complex relationships of technology and society. Topics include standardization, the Internet, biotechnology, nanotechnology, the role of technology in creating, sustaining, and challenging social inequalities, the engineering profession, and the politics of risk in relation to technological dangers and national security.