#### 000. Study Abroad.

L/R 001. (STSC001) Emergence of Modern Science. (A) May be counted toward the Hum/SocSci or NatSci/Math Sectors. Class of 2010 Adams.

During the last 500 years, science has emerged as a central and transformative force that continues to reshape everyday life in countless ways. This introductory course will survey the emergence of the scientific world view fromthe Renaissance through the end of the 20th century. By focusing on the life, work and cultural contexts of those who created modern science, we will explore their core ideas and techniques, where they came from, what problems they solved, what made them controversial and exciting and how they related to contemporary religious beliefs, politics, art, literature, and music. The course is organized chronologically and thematically. In short, this is a "Western Civ" course with a difference, open to students at all levels.

L/R 002. (HIST036, STSC002) Medicine in History. (A) History & Tradition Sector. All classes. Barnes.

This course surveys the history of medical knowledge and practice from antiquity to the present. No prior background in the history of science or medicine is required. The course has two principal goals: (1)to give students a practical introduction to the fundamental questions and methods of the history of medicine, and (2)to foster a nuanced, critical understanding of medicine's complex role in contemporary society. The couse takes a broadly chronological approach, blending the perspectives of the patient, the physician, and society as a whole--recognizing that medicine has always aspired to "treat" healthy people as well as the sick and infirm. Rather than history "from the top down"or "from the bottom up, "this course sets its sights on history from the inside out. This means, first, that medical knowledge and practice is understood through the personal experiences of patients and caregivers. It also means that lectures and discussions will take the long-discredited knowledge and treatments of the past seriously, on their own terms, rather than judging them by todays's standards. Required readings consist largely of primary sources, from elite medical texts to patient diaries. Short research assignments will encourge students to adopt the perspectives of a range of actors in various historical eras.

#### 003. (STSC003) Technology and Society. (B) Society Sector. All classes. Staff.

"We shape our technologies; thereafter they shape us." This course surveys the ways in which technology has shaped our societies and our relations with the natural world. We will examine the origins and impact of technical developments throughout human history and across the globe--from stone tools, agriculture and cave painting to ancient cities, metallurgy and aqueducts; from windmills, cathedrals, steam engines and electricity to atom bombs, the internet and genetic engineering. We will pay attention to the aesthetic, religious and mythical dimensions of technological change and consider the circumstances in which innovations emerge and their effects on social order, on the environment and on the ways humans understand themselves.

L/R 010. Health and Societies. (B) Humanities & Social Science Sector. Class of 2010 & beyond. Barnes. Also fulfills General Requirement in Science Studies for Class of 2009 and prior

"Two fundamental questions structure this course: (1)What kinds of factors shape population health in various parts of the world in the twenty-first century? and (2)What kinds of intellectual tools are necessary in order to study global health? Grasping the deeper "socialness" of health and health care in a variety of cultures and time periods requires a sustained interdisciplinary approach. "Health and Societies: Global Perspectives" blends the methods of history, sociology, anthropology and related disciplines in order to expose the layers of causation and meaning beneath what we often see as straightforward, common-sense responses to bioloogical phenomena. Assignments throughout the semester provide a hands-on introduction to researchstrageties in these core disciplines. The course culminates with pragmatic, student-led assessments of global health policies designed to identify creative and cost effective solutions to the most persistent health problems in the world today."

#### SM 022. (STSC022) Race, Genetics and Social Policy. (M) Staff.

What box do you check if a form asks you to identify your race? Do you fall between boxes? Do you check two or three? Do you refuse to answer the question even if you can check one box? "What is your race?" is a loaded question in American society, because racial identities have social, political and economic ramifications. This course is designed to examine the meanings of race, in particular the ones that have been thought to have a scientific or biological foundation. We will examine the origins of these questions of race from the end of the 19th century to the present, and the way that the genetic science of race has shaped social policy and has changed over time. Most of our focus will be on the United States, but we will also set these questions in a transnational perspective.

### SM 025. (HIST025, RELS116, STSC028) Western Science, Magic and Religion 1600 to the present. (C) History & Tradition Sector. All classes. Kuklick.

Throughout human history, the relationships of science and religion, as well as of science and magic, have been complex and often surprising. This course will cover topics ranging from the links between magic and science in the seventeenth century to contemporary anti-science movements.

#### SM 032. (STSC032) Risky Business. (M) Society Sector. All classes.

This freshman seminar on medical decision-making will focus on personal and public medical and health decisions - how we make them and how they can be improved. While in theory medical decisions are in large part both informed and constrained by scientific evidence, in reality they are much more complex. Drawing upon a range of information sources including textbooks, original research and popular media, the seminar will introduce students to the challenges of making personal and public (i.e., policy) decisions under conditions of inherent uncertainty and resources constraints and how research and scholarship can inform and improve decision making processes and decisions. Using a variety of highly engaging approaches (in-class discussions, examination of primary research, popular media, simple experiments, expert panel debates) this highly interactive seminar will provide students a strong introductory foundation to medical decision making specifically and, by extension to decision making under conditions of uncertainty more generally. The seminar will take a multidisciplinary perspective, drawing upon knowledge developed from psychology, scoiology, economics, insurance and risk management, statistical inference, neuroscience, operations research, communications, law, ethics and political science.

#### SM 039. The Healer's Tale: Negotiating Trust in Modern America. (M) Tighe.

Dramatic, deadly, and terrifying in their brutal immediacy, outbreaks of epidemic disease have devastated and transformed human societies since the beginnings of recorded history. From the Black Death to cholera to AIDS, epidemics have wrought profound demographic, social, political and cultural change all over the world. Such is the power of their mystery and horror that while thousands die everyday in the United States from mundane illnesses such as heart disese or lung cancer, panic grips the land at the thought of a handful of deaths from seemingly exotic affictions such as West Nile encephalitis and "weaponized" anthrax. Through a detailed analysis of specific historical outbreaks, this seminar will investigate the causes and effects of epidemic disease, and will examine the ways in which different societies in different eras have responded in times of crisis.

### SM 050. Mad, Bad and Sad: The Construction, Prevention and Treatment of Mental Illness. (M) Mandell.

This freshmen seminar is designed to introduce students to research and debatessurrounding the concept of mental disorder and to help them to think critically about these disorders' biological and social construction. In addition to learning about the presentation and treatment of mental illness, they weill also be introduced to concepts in epidemiology, psychology, psychiatry and health services research, and learn about the history of the science surrounding psychiatry and how different beliefs at different times have influended policy, systems, services and treatment.

#### SM 052. Autism Epidemic. (M) Mandell.

The CDC estimates that 1 in 150 children have autism. Three decades ago, this number was 1 in 5,000. The communities in which these children are identified in ever increasing numbers are ill prepared to meet their needs. Scientists have struggled to understand the causes of this disorder, its treatment, and why it appears to be rapidly increasing. Families, policy makers, schools and the healthcare system have argued bitterly in the press and in the courts about the best way to cre for these children and the best ways to pay for this care. In this class, we will use autism as a case study to understnad how psychiatric and developmental disorders of childhood come to be defined over time, their biologocal and environmental causes identified, and treatments developed. We will also discuss the identification and care of these children in the broader context of the American education and healthcare systems.

#### SM 059. Medical Missionaries and Partners. (M) Bream.

Global health is an increasingly popular goal for many modern leaders. Yet critics see evidence of a new imperialism in various aid programs. We ill examine the evolution over time and place of programs designed to improve the health of underserved populations. Traditionally catergorized as public health programs or efforts to achieve a just society, these programs often produce results that are inconsistent with these goals. We will examine the benefits and risks of past programs and conceptualize future partnerships on both a local and global stage. Students should expect to question broadly held beliefs about the common good and service. Ultimately we will examine the concept of partnership and the notion of community health, in which ownership, control, and goals are shared between outside expert and inside community member.

### L/R 110. (COML074, ENGL075, HIST117, STSC110) Science and Literature. (B) Arts & Letters Sector. All Classes. Adams.

This course will explore the emergence of modern science fiction as a genre, the ways it has reflected our evolving conceptions of ourselves and the universe, and its role as the mythology of modern technological civilization. We will discuss such characteristic themes as utopias, the explortion of space and time, biological engineering, superman, robots, aliens, and other worlds--and the differences between European and American treatment of these themes.

### L/R 100. (SOCI100) Introduction to Sociological Research. (C) Armenta, Harknett, Koppel, Park, Smith, Wilde.

One of the defining chnaracteristics of all the social sciences, including sociology, is a commitmenmi to empirical research as the basis for knowledge. This course is designed to provide you with a basic understanding of research in the social sciences and to enable you to think like a social scientist. Through this course students will learn both the logic of sociological inquiry and the nuts and bolts of doing empirical research. We will focus on such issues as the relationship between theory and research, the logic of research design, issues of conceptualization and measurement, basic methods of data collection, and what social scientists do with data once they have collected them. By the end of the course, students will have completed sociological research projets utilizing different empirical methods, be able to evaluate the strenths and weaknesses of various research strategies, and read (with understanding) published accounts of social science research.

#### L/R 101. (PHIL072, PPE 072) Biomedical Ethics. (M) Society Sector. All classes. Martin.

A survey of moral problems in medicine and biomedical research. Problems discussed include: genetic manipulation, informed consent, infanticide, abortion, euthanasia, and the allocation of medical resources. Moral theory is presented with the aim of enabling students to think critically and analytically about moral issues. The need for setting biomedical issues in broader humanistic perspective is stressed.

#### SM 107. (SAST197, STSC107) Science, Technology & Medicine in Colonial India. (C) P. Mukarji.

In this course we will explore the broad contours of the histories of Science, Medicine and Technology in Colonial India (c. 1757-1947). This broad overview will be developed each week through a case study based on any one particular scientific discipline, technological project or medical event. Overall the course will attempt to locate the develoment of science, technology and medicine within the social, political and cultural context of colonial India. It is also worth noting that 'Colonial India', will include discussions of regions which today make up the Republic of India, Pakistan and Bangladesh.

#### 111. (SOCI111) Health of Populations.. (C) Kohler.

This course develops some of the major measures used to assess the health of populations and uses those measures to consider the major factors that determine levels of health in large aggregates. These factors include disease environment, medical technology, public health initiatives, and personal behaviors. The approach is comparative and historical and includes attention to differences in health levels among major social groups.

#### L/R 123. (STSC123) Darwin's Legacy. (B) Living World Sector. All classes. Lindee.

Darwin's conceptions of evolution have become a central organizing principle of modern biology. This lecture course will explore the origins and emergence of his ideas, the scientific work they provoked, and their subsequent re-emergence into modern evolutionary theory. In order to understand the living world, students will have the opportunity to read and engage with various classic primary sources by Darwin, Mendel, and others. The course willconclude with guest lectures on evolutionary biology today, emphasizing currentissues, new methods, and recent discoveries. In short, this is a lecture course on the emergence of modern evolutionary biology--its central ideas, their historical development and their implications for the human future.

#### 135. (PSCI135) The Politics of Food. (M) Summers.

In this ABCS and Fox Leadership Program course students will use course readings and their community service to analyze the institutions, ideas, interests, social movements, and leadership that shape "the politics of food" in different arenas. Service sites include: the Agatston Urban Nutrition Initiative; the Greater Philadelphia Coalition Against Hunger; the West Philadelphia Recess Initiave; the Vetri Foundation's Eatiquette Program; and Bon Appetit at Penn. Academic course work will include weekly readings, Canvas blog posts, several papers, and group projects. Service work will include a group presentation (related to your placement) as well as reflective writing during the semester. Typically one half of each class will be devoted to a discussion of the readings and the other either to group work and discussion of service projects, or to a course speaker. This course is affiliated with the Communication within the Curriculum (CWIC) program, and student groups are required to meet twice with speaking advisors prior to giving presentation.

#### SM 140. History of Bioethics. (C) Linker.

This course is an introduction to the historical development of medical ethics and to the birth of bioethics in the twentieth-century United States. We will examine how and why medical ethical issues arose in American society at this time. Themes will include human experimentation, organ donation, the rise of medical technology and euthanasia. Finally, this course will examine the contention that the current discipline of bioethics is a purely American phenomenon that has been exported to Great Britain, Canada and Continental Europe.

L/R 145. (HIST146, STSC145) Comparative Medicine. (A) History & Tradition Sector. All classes. Mukharji.

This course focuses on health and healing in the colonial and post-colonial world. We give special attention to local healing under condition of domination, to definitions of the body and the person in biomedicine and in non-European healing traditions, and to the political and cultural place of medicine in regions which have experienced colonial rule.

#### SM 170. (CLST170) Ancient Greek Medicine. (M) Rosen.

The history of modern medicine as we know it in the West is remarkably recent; until the nineteenth century prevailing theories of the body and mind, and the many therapeutic methods to combat disease, were largely informed by an elaborate system developed centuries earlier in ancient Greece, at a period when the lines between philosophy, medicine, and what we might consider magic, were much less clearly defined than they are today. This course will examine the ways in which the Greeks conceptualized the body, disease, and healing, and will compare these to medical culture of our own time. We will consider sources from Hippocrates, Plato, and Aristotle to Galen and Soranus, and whenever possible we will juxtapose these writings with modern discourse about similar topics. Several visitors from the Medical School are expected to participate on a regular basis. All readings will be in English and no previous background in Classical Studies is required.

#### SM 150. (SOCI152) American Health Policy. (C) Linker.

"American Health Policy" places the success or failure of specific pieces of U.S. health care legislation into social and political context. The course covers the time period from the U.S. Civil War to the 2010 Affordable Care Act (ACA), addressing two central questions: 1) Why was the United States one of the only industrialized nations to, until recently, have a private, non-nationalized, non-federalized health care system? 2) Why has U.S. health insurance historically been a benefit given through places of employment? Some topics addressed include: private health insurance, industrial health and workmen's compensation, the welfare state (in Europe, Canada, and the U.S.), maternal and infant care programs, Medicare and Medicaid. One of the main take-home messages of the course is that 20th-century U.S. health care policies both reflected and shaped American social relations based on race, class, gender, and age.

This course is a combination lecture and "SAIL" class. SAIL stands for "Structured, Active, In-Class Learning." During many class periods, students will work in small groups on a specific exercise, followed by a large group discussion and/or brief lecture. Students who choose to take this course, therefore, must be fully committed to adequately preparing for class and to working collaboratively in class. (Note: the 2015 format will be somewhat different from the 2014 format).

#### SM 152. (STSC162) Technology and Medicine in Modern America. (L) Staff.

Medicine as it exists in contemporary America is profoundly technological; we regard it as perfectly normal to be examined with instruments, to expose our bodies to many different machines; and to have knowledge produced by those machines mechanically/electronically processed, interpreted and stored. We are billed technologically, prompted to attend appointments technologically, and often buy technologies to protect, diagnose, or improve our health: consider, for example, HEPA-filtering vacum cleaners; air-purifiers; fat-reducing grills; bathroom scales; blood pressure cuffs; pregancy testing kits; blood-sugar monitoring tests; and thermometers. Yet even at the beginning to the twentieth century, medical technologies were scarce and infrequently used by physicians and medical consumers alike. Over the course of this semester, we will examine how technology came to medicine's center-stage, and what impact this change has had on medical practice, medical institutions and medical consumers - on all of us!

157. (STSC152) Chinese Science. (C) Petrie.

#### 179. (ENVS179, STSC179) Environmental History. (M) Greene.

Environmental history studies the interactions between humans and the natural world. In this kind of study, mosquitoes and rain are actors in history as well as humans and their impact. This course explores these interactions through case studies and topics nationally and globally, such as energy, disease, human migration and settlement, animals, technological changes, urban and suburban development, conservation and politics. This course is geared toward students who want to think about how history happens, in different places and over time.

#### 202. (STSC202) The Scientific Revolution. (M) Staff.

The emergence of science in the sixteenth to eighteenth centuries as an activity that remade ideas of nature and society, that created new professions and institutions, and that ultimately transformed human consciousness. Classical approaches to science, challenges and new departures, the mutation of research inside and outside universities, new patterns in the dissemination of science and in public response.

#### SM 206. Doing Good?: Humanitarianism and Global Health. (M) McKay.

This course will explore the current context of health policy, health reform, and health service delivery in the developing world. After examining global economic and political context of health care, students will analyze the role that economic development plays in promoting or undermining health. Students will examine key disease challenges such as tuberculosis, malnutrition, and HIV/AIDS.

L/R 212. (STSC212) Science Technology & War. (M) Humanities & Social Science Sector. Class of 2010 & beyond. Lindee.

In this survey we explore the relationships between technical knowledge and warin the nineteenth and twentieth centuries. We attend particularly to the centrality of bodily injury in the history of war. Topics include changing interpretations of the machine gun as inhumane or acceptable; the cult of the battleship; banned weaponry; submarines and masculinity; industrialized war and total war; trench warfare and mental breakdown; the atomic bomb and Cold War; chemical warfare in Viet Nam; and "television war" in the 1990s.

#### 216. (GSWS216) Women and Health. (M) Staff.

Women's health is a constant refrain of modern life, prompting impassioned debates that speak to the fundamental nature of our society. Women's bodies are the tableaux across which politicians, physicians, healthcare professional, activists, and women themselves dispute issues as wide-ranging as individual versus collective rights, the legitimacy of scientific and medical knowledge, the role of the government in healthcare, inequalities of care, and the value of experiential knowledge, among many others. Understanding the history of these questions is crucial for informed engagement with contemporary issues.

#### SM 230. Fundamentals of Epidemiology. (B) Staff.

This course introduces students to the basic tenets of epidemiology and how to quantitatively study health at the population level. Students learn about measures used to describe populations with respect to health outcomes and the inherent limitations in these measures and their underlying sources of data. Analytic methods used to test scientific questions about health outcomes in populations then are covered, again paying particular attention to the strength and weaknesses of the various approaches. Multiple large epidemiologic research and field studies are used as in-class exemplars.

#### SM 232. Social Epidemiology. (M) Staff.

Illness,crime,and other instances of socical dysfunction do not happen in a vacuum, nor ar ethey distributed randomly throughout society. The field of social epidemiology examines the finluence of workplace, neighborhood,social relationships, and other nonbiological factors on health outcomes. This course gives students the skills to explore and assess complex health challenges that are seen in popular media and public discourse by examining such factors as healthcare access,social inequality,racism and discrimination,and trust and social captal. Using readings, videos and interactive discussions with a focus on emergent health issues, this course equips students to diagnose and interpret underlying reasons for poor health using social epidemiological tools,and to consider practical inverventions to address those fundamental causes of illness.

### L/R 238. (ANTH238) Introduction to Medical Anthropology. (C) Humanities & Social Science Sector. Class of 2010 & beyond. Barg.

Introduction to medical anthropology takes central concepts in anthropology -- culture, adaptation, human variation, belief, political economy, the body -- and applies them to human health and illness. Students explore key elements of healing systems including healing technologies and healer-patient relationships. Modern day applications for medical anthropology are stressed.

#### SM 239. (ANTH273) Global Health: Anthropologial Perspectives. (M) Petryna.

In some parts of the world spending on pharmaceuticals is astronomical. In others, people struggle for survival amid new and reemerging epidemics and have little or no access to basic or life-saving therapies. Treatments for infectious diseases that disproportionately affect the world's poor remain under-researched and global health disparities are increasing. This interdisciplinary seminar integrates perspectives from the social sciences and the biomedical sciences to explore 1) the development and global flows of medical technologies; 2) how the health of individuals and groups is affected by medical technologies, public policy, and the forces of globalization as each of these impacts local worlds. This course is a Benjamin Franklin Seminar.

#### SM 249. (ANTH209) Anthropology and Everyday Bioethics. (M) Staff.

For many people, the term "bioethics" denotes abstract philosophical questions about human cloning or the limits of genetic engineering technologies. Yet issues of bioethics and medical ethics arise everyday in the common situations of our lives, affecting our immediate health and well being and eventually that of the society around us. This seminar will examine this everyday bio/medical ethics from an ethnographic point of view. Topics include medical error, birth, death, population control, poverty, race global medical experimentation and corporate responsibility. We will read works by social scientists of medicine that chronicle ordinary people's struggles and the bioethics quandaries that accompany them, and in doing so will distinguish between the everyday moral experiences of people all over the world faced with difficult choices, and the ethical ideals to which they aspire. We will then ask: how can these perspectives be reconciled? When trying to reconcile these perspectives, how can we account for powerful dynamics of race, gender, class religion, and cultural difference that infuse everyday medical decision-making? And finally, how can we develop a code of ethics that takes these issues into account and is also fundamentally connected to the moral lives of the particular individuals who are affected? Is this even possible?

#### 251. Foundations of Public Health. (C) Sorenson.

Many factors have shaped, and continue to shape, population health and public health policy. This course will explore the concept, mission, and core functions of public health. Students will have a chance to learn about its key methodological (epidemiology, biostatistics) and content (environmental health, social and behavioral sciences, health policy) areas. In addition, we will focus on topics of particular relevance to the current health of the public; topics likely will include the basics of life (food, water, and shelter) and topics of current interest (e.g., motor vehicle crashes, mental health, violence).

#### 252. Law and Medicine. (M) Staff.

This course is intended to give students an in-depth understanding of the ways in which medical practice and medical decision-making are guided by modern American law. Students will learn how the law's regulatory powers have been used to set boundaries in medicine and, in turn, how medical practice and theory have informed modern legal develoments. The field of health care law sits at a crossroads where many of life's "big questions" converge, and consequently is shaped, more than any other legal discipline, by social, ethical, cultural and economic influences. By the end of this course, students should have an understanding both of the current state of American health law, and of the social forces that have shaped its historical development.

#### 299. Independent Study.

#### 275. (SOCI175, SOCI275) Medical Sociology. (C) Society Sector. All classes. Schnittker.

This course is designed to give the student a general introduction to the sociological study of medicine. Medical sociology is a broad field, covering topics as diverse as the institution and profession of medicine, the practice of medical care, and the social factors that contribute to sickness and well-being. While we will not cover everything, we will attempt to cover as much of the field as possible through four central thematic units: (1) the organization of development of the profession of medicine, (2) the delivery of health-care, (3) social cultural factors in defining health, and (4) the social causes of illness. Throughout the course, our discussions will be designed to understand the sociological perspective and encourage the application of such a perspective to a variety of contemporary medical issues.

#### SM 289. Methds: Sexuality Studies. (C) White.

This seminar examines the links between queer theory and research methods, with an emphasis an emphasis on approaches that cross the division between the social sciences and the humanities. How do scholars who contribute to critical sexuality studies navigate questions related to knowledge, ethics, and practice? How do critical, transnational, and post-colonial theories inform methods in sexuality studies? Over the course of the term, students will become acquainted with a variety of methods for conducting qualitative research in the interdisciplinary field of critical sexuality studies. Introducing students to the process of doing research, we will consider such topics as: how to frame a research question, how to conduct a literature review, and how to choose appropriate tools to answer research questions. A range of methods including archival research, oral history, qualitative interviews, ethnography, cyber-ethnography, media and cultural studies will be explored. Issues of power, narration, interpretation, representation, and writing will be central to our discussion as we work through the relationships of theory and method.

#### L/R 302. (STSC302) Stem Cell Science in Schools: History, Ethics, and Education. (M) Shuda.

This course will provide University of Pennsylvania and a local Philadelphia High Scjool students with the opportunity to learn fundamental biology concepts and apply them in a hands-on, inquiry-based approach that is also attentive to society, history and social context. Biological sciences have long been deeply engaged with social issues, and our topics for this course reflect their relevance to everyday life. Topics of this course will include, but are not limited to, cell development and stem cell biology, wich form the basis of the emerging field of Regenerative Medicine. Penn students will reinforce their learning of these concepts by mentoring high school students, demonstrations by Penn scientists, and a co-teaching method involving Penn faculty and a partnering high school teacher. A primary goal of this course is to expose both Penn and high school students to cutting edge science and its societal impact. Through this course Penn students will learn critical skills that can help them bring scientific ideas to professionals, and important to any educated professional.

### SM 307. (SAST397, STSC307) Globalization & Medicine in Colonial & Postcolonial South Asia. (C) P.Mukharji.

This seminar will explore a wide range of themes at the intersection of globalization and therapeutic cultures in South Asia and amongst South Asian diasporas. To begin with the course understands 'supraterritoriality' as the key feature of globalization and proceeds to interrogate the myriad ways in which this supraterritoriality was produced, consumed, used an dabused within the therapeutic cultures that have been, andon occasion still are, available in so uth Asia-both in reality and symbolically. Each week, through a specific case study, framed by a few theoretical readings, we will attempt to deepen and problematize the simple definition of globalization with which we start the course. Throughout the course there will be a strong emphasis on combining case study-based empirical material with theoretical interventions in Cultural Theory and Postcolonial Studies.

#### SM 312. (STSC312) Weapons of Mass Destruction. (C) Lindee.

The course explores the historical development of traditional weapons of mass destcruction such as chemical, nuclear and biological agents, in addition to newer and seemingly non-traditional weapons such as land mines and civilian aircraft that can also be employed to cause large numbers of injuries and deaths among civilian and military populations. Through case studies in technology and public health, students will evaluate the medical, scientific, environmental, and cultural ramifications of these weapons and their effect on human heal and society by analyzing the rise of the military-industrial-academic-complex in twentieth century America.

#### SM 321. (ANTH312, URBS312) Health in Urban Communities. (A) Staff.

This course will introduce students to anthropological approaches to health and to theories of participatory action research. This combined theoretical perspective will then be put into practice using West Philadelphia community schools as a case study. Students will become involved in design and implementation of health-related projects at an urban elementary or middle school. As one of the course requirements, students will be expected to produce a detailed research proposal for future implementation.

#### SM 324. (GSWS324, NURS324) United States Child Health 1800-2000. (A) Connolly.

This course explores the impact of historical ideas, events and actors pertaining to the history of children's health care in the United States. Emphasis is placed on tracing the origins and evolution of issues that have salience for twenty-first century children's health care policy and the delivery of care.

#### SM 337. Race and Medicine in the Global South. (C) Mukharji.

Racialized medical provisions under Apartheid in South Africa, theories of racial immunity to malaria in the Philippines and contemporary investigations of caste-based disease risks in India are some of the topics to be covered in this course. From the more straightforward issues of racial discrimination in medicine, to more complex issues of racial immunity or racial susceptibility to disease, medicine and race have been entangled together in multiple ways. More importantly these issues are far from being matters of the past. Genomic medicine and risk society have combined to make race and medicine one of the most potent contemporary issues. Outside the Western World, in the Global South, these issues are further refracted through local cultural, historical and political concerns. This course will take a long-term view of these contemporary issues.

#### 332. (GSWS303, NURS303, NURS503) Contemporary Issues in Human Sexuality. (B) Guidera.

Course content emphasizes theories of sexual development and factors influencing sexual behavior within the continuum of health and illness. Common sexual practices of people are studied within the context of lifestyle and situational life crises. Concepts of normal sexual function and dysfunction are examined. Contemporary sexual issues are explored.

#### SM 334. (GSWS333) Birth Culture and Medical Technology. (M) Mackenzie.

How we are born and give birth can vary more than most people realize. Until the rise of medical technology, women gave birth at home surrounded by other women. Now, the majority of Americans are born in hospitals, and a large percentage of those birth are the result of surgical interventions. This course will explore the medicalization of birth, as well as the movements dedicated to promoting home birth, natural birth, and midwifery. Many of the readings will examine birth from an unapologetically feminist and/or holistic perspective, and we will discuss the psychological, political, cultural and spiritual dimensions of birth practices. We will also consider the impact of increasingly sophisticated medical technology on conception and pregnancy, including in vitro fertilization, surrogate mothers, and extending the childbearing years well into late life. An important theme throughout will be the concept of "appropriate technology" -- which technologies are appropriate and who decides? Readings will be drawn from a number of sources, principally midwifery, nursing, and medical journals.

#### SM 335. (PSCI335) Healthy Schools. (M) Summers.

This academically based community service research seminar will develop a pilot program to test the efficacy of using service-learning teams of undergraduates and graduate students to facilitate the development of School Health Councils (SHCs) and the Center for Disease Control's School Health Index (SHI) school self-assessment and planning tool in two elementary schools in West Philadelphia. This process is intended to result in a realistic and meaningful school health implimentation plan and an ongoing action project to put this plan into practice. Penn students will involve member sof the school administration, teachers, staff, parents and ocmmunity member sin the SHC and SHI process iwth a special focus on encouraging participation from the schools' students. In this model for the use of Penn service-learning teams is successful, it will form the basis of on ongoing partnership with the School District's Office of health, Safety & Physical Education to expand such efforts to more schools.

#### SM 340. (STSC340) The Curing Machine: Hospitals in Time. Gina Greene.

This course examines the technological, scientific, and spatial evolution of the modern hospital from the miasmatic, vermin-infested medieval European hospital-as-alms house, to the late twentieth-century ideal of the modern hospital as a condenser of sophisticated technologies, scientific expertise, and Taylorist efficiencies. In so doing, we will see how designers of hospital space, consciously or not, have striven to realize the mechanized, technologicavision of the hospital as curing machine a phrase first invoked by 18th century French surgeon and anatomist Jacques Tenon. While the early nineteenth-century hospital had been a locus for fears about contagion, death, and disease in a pregerm theory world, through its eventual integration of antiseptic practices, spatially produced zones of medical expertise (the operating suite, the laboratory, pediatric and maternity wards),novel technologies (incubators, hyperbaric chambers, x-rays, ultrasounds) and factory-like efficiencies the hospital came into its own as the epitome of rational modernist space.

### **HEALTH AND SOCIETIES**

(AS) {HSOC}

SM 341. (GSWS318, NURS318) Race, Gender, Class and the History of American Health Care. (A) Fairman. For Benjamin Franklin Scholars & Nursing Honors Students

This multidisciplinary course surveys the history of American health care through the multiple perspectives of race, gender, and class, and grounds th discussions in contemporary health issues. It emphasizes the links between the past and present, using not only primary documents but materials from disciplines such as literature, art, sociology, and feminist studies that relate both closely and tangentially to the health professions and health ca issues. Discussions will surround gender, class-based, ethnic, and racial ideas about the construction of disease, health and illness; the development of health care institutions; the interplay between religion and science; the experiences of patients and providers; and the response to disasters and epidemics.

SM 342. Death and Dying. (M) Walls.

#### SM 347. Asian Medicine and Modernity. (C) Mukharji.

From Yoga clinics to Acupuncture shops, from Sting's advocacy of Tantric Sexual regimens to Dr. Gregory House recommending the Cordyceps sinensis, Asian medicines are an increasingly important and conspicuous facet of the modern world. Yet, nearly all of them claim to be thousands of years old. How have they managed to survive and thrive despite their age? Why have they not disappeared like so much else from bygone Asian intellectual traditions? This course asks these and similar questions. It looks at the multifaceted ways in which Asian medicines have ngotiated with modernity.

#### SM 382. Guns and Love Gone Bad: A Public Health Perspective. (M) Sorenson.

This course will address two health concerns of long-standing controversy: the role of guns in population health and violence in relationships. We will adopt a healthy skepticism about the assumptions and ideologies that currently dominate formal and informal discourse about these topics. A life span perspective - guns from design through use, and abuse from childhood through late life - will be grounded in a public health injury prevention framework. As a function of this approach, we will examine key aspects of the social context in which guns and abuse exist and within which related policies are formulated. Students are encouraged to examine their perceptions about these issues so that they can become more effective members of a society that appears to maintain a deep ambivalence about guns and about violence in relationships.

#### SM 348. Current Issues in Global Health. (M) Johnson.

#### SM 359. (ANTH359) Nutritional Anthropology. (M) Staff.

Human nutrition and nutritional status within context of anthropology, health, and disease. Particular emphasis on nutritional problems and the development of strategies to describe, analyze, and solve them. Students will participate in the Urban Nutrition Initiative, an academically based community service project in local area schools.

#### SM 379. (STSC379) Animals in Science Medicine Technology. (C) Greene.

What we call human society is composed of both non-human and human animals. Rats, mosquitoes, horses, dogs, sparrows, camels and whales have been historical actors, integral to questions about change over time. Using a historical approach, this course will examine animal science and research, veterinary medicine, and animal energy and technology in the context of changing ideas about human-animal relations, animal welfare, animal rights and animal studies. We will explore borad change over time in human-animal relations, and focus specifically on the period since the mid-19th century, looking at specific species and drawing from materials in the arts, literature, history, science and social science.

SM 404. (ENVS404) Urban Environments: Speaking About Lead in West Philadelphia. (M) Natural Science & Mathematics Sector. Class of 2010 and beyond. Pepino. ABCS Course. Local middle school visits required.

A study of selected aspects of urban environments, with an emphasis on West Philadelphia. Students will engage middle school children in exercises of applied environmental research.

SM 408. (ENVS408) Urban Environments: The Urban Asthma Epidemic. (B) Pepino. ABCS Course. Visits to community centers required.

This course will examine the epidemiology of asthma, the potential causes of asthma, the public health issues and environmental triggers. Penn students will collaborate with the Children's Hospital's clinical research study - Community Asthma Prevention Program. Students will conduct environmental triggers classes in the community.

#### SM 411. (STSC411) Sports Science Medicine Technology. (C) Johnson.

Why did Lance Armstrong get caught? Why do Kenyans win marathons? Does Gatorade really work? In this course, we won't answer these questions ourselves but will rely upon the methods of history, sociology, and anthropology to explore the world of the sport scientists who do. Sport scientists produce knowledge about how human bodies work and the intricacies of human performance. They bring elite (world-class) athletes to their laboratories-or their labs to the athletes. Through readings, discussions, and original research, we will find out how these scientists determine the boundary between "natural" and "performance-enhanced," work to conquer the problem of fatigue, and establish the limits and potential of human beings. Course themes include: technology in science and sport, the lab vs. the field, genetics and race, the politics of the body, and doping. Course goals include: 1) reading scientific and medical texts critically, and assessing their social, cultural, and political origins and ramifications; 2) pursuing an in-depth

#### SM 413. (STSC413) Perfect Bodies. (C) Linker.

#### SM 420. Research Seminar. (B) Staff.

This course is designed to provide HSOC students with the tools necessary to undertake original research, guiding them through the research and writing process. Students will produce either a polished proposal for a senior thesis project, or, if there is room inthe course, a completed research paper by the end of term. Students work individually, in small groups and under the close supervision of a faculty member to establish feasible research topics, develop effective research and writing strategies, analyze primary and secondary sources, and provide critiques of classmates'drafts. Students must apply for this couse by December 1.

#### SM 421. Medicine and Development. (C) Feierman.

This course is devoted to readings and research about medicine and development in resource-poor countries. The focus is on medical institutions and practices as seen within the broader context of development. We try to understand changing interpretations of how development takes place--of its relationship to technical knowledge, power and inequality. The course give students the opportunity to do intensive original research.

#### SM 430. Disease & Society. (C) Aronowitz.

What is disease? In this seminar students will ask and answer this question by analyzing historical documents, scientific reports, and historical scholarship (primarily 19th and 20th century U.S. and European). We will look at disease from multiple perspectives -- as a biological process, clinical entity, population phenomenon, historical actor and personal experience. We will pay special attention to how diseases have been recognized, diagnosed, named and classified in different eras, cultures and professional settings.

#### SM 449. Vertical Global Health Movements. (M) Staff.

In the past 30-40 years, "vertical" movements to tackle specific disease problems-or even eliminate particular disease vectors-have become the norm for global health interventions, replacing a short-lived Primary Health Care movement that sought to broadly improve health and welfare conditions from the bottom up in resource-poor countries around the world. Many of these vertical programs were at first implemented with little consideration of specific local circumstances regarding difference in disease burden, transmission pathways, microbial strain, existing local treatment and control approaches, significant historical factors, or type and degree of suffering. Recent campaigns have attempted to revisit the problem of the "local." This course examines some of the most influential of these global vertical disease control campaigns from the 1950s through the present. Our goal will be to elucidate some of the crucial factors that have shaped local experiences of the relevant diseases, and that have influenced the direction and outcome of vertical control efforts at the local and global levels. Students will extensively research a particular campaign and its potential effects in a geographical location and time period of their choice.

#### SM 436. (STSC436) Biopiracy: Medicinal Plants and Global Power. (M) Mukharji.

Biopiracy has emerged as the name of conflict between multinational pharmaceutical companies attempting to get genetic patents on medicinal plants and indigenous communities in the Global South who have long known and used these plants for medicinal purposes. Today the story of Biopiracy is an unfolding story of plants, patents and power. The extraction and commercial exploitation of plants and knowledge about them from the Global South however is not new. It has been happening at increasing pace for at least the last two centuries. Both the anti-malarial drug quinine and the cancer drug vincristine for instance have their plant-origins in the Global South where local communities used them medicinally long before their discovery by biomedicine. This course will put the current debates around Biopiracy in context and explore how the entanglements of plants and power have changed or not changed.

#### SM 441. (ANTH441) Cross Cultural Approaches to Health. (B) Barg.

This course will explore the ways that health and illness-related beliefs and behaviors develop within communities. We will identify the forces that shape these beliefs and behaviors and ultimately affect who gets sick, who gets well, and the very nature of the illness experience. Emphasis will be given to the relationships among sociocultural, political and biological factors and the ways that these factors interact to produce the variation that we see in health and illness related attitudes, behaviors and outcomes across cultures.

#### 442. (STSC442) HOSPITAL AS CURING MACH.

This course examines the technological, scientific, and spatial evolution of the modern hospital from the miasmatic, vermin-infested medieval European hospital-as-alms house, to the late twentieth-century ideal of the modern hospital as a condenser of sophisticated technologies, scientific expertise, and Taylorist efficiencies. In so doing, we will see how designers of hospital space, consciously or not, have striven to realize the mechanized, technological vision of the hospital as curing machine a phrase first invoked by 18th century French surgeon and anatomist Jacques Tenon. While the early nineteenth-century hospital had been a locus for fears about contagion, death, and disease in a pregerm theory world, through its eventual integration of antiseptic practices, spatially produced zones of medical expertise (the operating suite, the laboratory, pediatric and maternity wards), novel technologies (incubators, hyperbaric chambers, x-rays, ultrasounds) and factory-like efficiencies the hospital came into its own as the epitome of rational modernist space. But, over the course of its evolution, the modern ho other change as well: as an incubator for super-bugs, as an engine for projects o and renewal, and as a site for the cultural transformation of the meaning of birth, death, and health itself.

#### SM 458. Environments and Health. (M) Crnic.

Do classrooms' fluorescent lights give you headaches? Have you ever felt invigorated by a mountain's breeze? Have you ever sought to get a "healthy" tan at the beach? Throughout history people have attributed their health -- good and bad-- to their physical surroundings. In this class we will explore how medical professionals, scientists and the general population have historically understood the ways in which the environment impacts different people, in different places, in different ways. We will interrogate medical theories that underpinned popular practices, like health tourism, public health campaigns, and colonial medical programs. We will also consider how people constructed and understood the physical environment, including farms and factories, cemeteries and cities, to be healthy or not. This course is designed to foster a collaborative atmosphere in which students will complete an original research paper through critical reading and step-wise assignments that will culminate in a final project.

#### SM 461. (STSC461) THE CHILD IN THE CITY. (M)

#### SM 462. Seeking Health: Tourism, Medicine in America 1800-2000. (M) Crnic.

Summer camps, spring break, and trips to the beach, mountains, and national parks: vacations are an integral part of American culture. Often we talk and think about traveling for its ability to rejuvenate our tired bodies and spirits. Although tourism only developed over the past 100 years, the tradition of traveling for health has a much deeper history. This course will examine how different people in different times have understood the connections between travel and health, and how technologies have and continue to mediate those experiences. Over the course of the semester students will complete an original research paper through critical reading and step-wise assignments that will culminate in a final project. By the end of the semester, students will have honed their skills in primary and secondary source research, the construction of an academic argument and paper, and will continue to develop skills in critical analysis through weekly reading assignments.

#### SM 471. (PUBH534, STSC471) Guns and Health. (C) Sorenson.

The purpose of this course is for students to gain an understanding of the role of guns in health, and population and prevention approaches to violence. The course will include a focus on policies and regulations related to firearms, the primary mechanism by which violence-releated fatalities occur in the U.S. We will address the life span of a gun, from design and manufacture through to use. In addition, we will address key aspects of the social context in which firearms exist and within which firearm policy is made.

SM 481. Nonstranger Violence. (M) Sorenson.

SM 488. (ANTH438) The Anthropology of Risk Perception in Health. Barg.

499. Capstone Independent Study. (C)