

Fall Quarter 2019 – Undergraduate Course Offerings

Courses with an asterisk (*) are open for Pre-registration.

SHC CORE COURSES – LIST ONE

[HISTORY 275-1 - History of Western Science and Medicine: Origins in Early Mod Europe](#)

20 (10784) - Lydia Barnett - TuTh 3:30PM - 4:50PM

*This course explores the social spaces of science and medicine in early modern Europe during the so-called 'Scientific Revolution.' We will survey the varied and surprising spaces in which scientific and medical knowledge was produced, from princely courts and grand cathedrals to humble artisanal workshops and Europe's overseas colonies. In so doing, we will see how science and medicine intersected with religion, politics, and emerging market economies during the first age of European imperialism and globalization.

[HISTORY 378 - Law and Science: A History](#)

20 (10815) - Ken Alder – MoWe 2-3:20PM

*Science and the law have long developed in tandem—and in tension. This course studies the interactions of our two principal theaters of proof, from forensic identification and the insanity plea to the rules of intellectual property and privacy concerns. We begin in the era of witchcraft trials and judicial torture and end in the era of DNA-typing and facial recognition software. Throughout, our goal is to come to terms with changing standards of truth finding and justice.

SHC CORE COURSE – LIST TWO

[PHIL 269-0 - Bioethics](#)

20 (17178) – Instructor TBD - TuTh 3:30PM - 4:50PM

*This course is an analysis of ethical and political issues that arise in medicine, with particular attention to questions posed by developments in biotechnology. Topics to be considered include human research, abortion, euthanasia, genetic engineering, and the allocation of medical resources.

WCAS FIRST YEAR SEMINARS

[ANTHRO 101-6 - First-Year Seminar - "Biological Thought & Action"](#)

101-6-22 - William Leonard, Michele M McDonough - TuTh 4:00PM - 5:20PM

Also taught with BIOL_SCI 115-6-20.

Science is a process by which people make sense of the world. Scientists examine evidence from the past, work to understand the present, and make predictions about the future. Integral to this process are the methods they use to collect and analyze data, as well as the ways in which scientists work together as a community to interpret evidence and draw conclusions. In this class, we will take a multidisciplinary approach to examining biological thought and action and their social ramifications.

[BIOL_SCI 101-6 – First-Year Seminar - Values of Biodiversity](#)

03 (11123) - Joseph S Walsh - MoWe 3:30PM - 4:50PM

One of the major challenges of our changing world is the loss of biological diversity. An overwhelming majority of people agree that we should work to save biodiversity, but their views are largely based on vague, positive feelings about nature rather than concrete justifications. This course investigates those concrete justifications.

[CHEM 105-6 - First Year Seminars](#)

02 (14957) – "Sci Writing for Non-Tech Aud" – Larry S Trzupsek - MoWeFr 10:00AM - 10:50AM

In this course, we will read and discuss works on technical subjects written for a general audience with no special scientific training; the authors we will be reading include Sam Kean, John McPhee, Don Norman, Richard Rhodes, and Lewis Thomas. Although the course is not targeted exclusively to science majors, students enrolling in it should have enough of a background in the fundamental sciences to feel comfortable writing about technical topics.

[EARTH 102-6 – First-year Seminar](#)

(13043) - ["Climate Change: The Scientific Evidence" - Patricia A Beddows - MoWe 2:00PM - 3:20PM](#)

Anthropogenic climate change represents a massive global experiment. In this course we will discuss the scientific evidence for anthropogenic climate change, including atmospheric composition changes, sea level rise, melting ice sheets, temperature records, and extreme weather events such as hurricanes.

[GNDR_ST 101-6 – First-Year Seminar](#)

20 (13685) ["Our Bodies Ourselves: The Women's Health Movement" - Amy Ruth Partridge - TuTh 2:00PM - 3:20PM](#)

[STAT 101-6 - First-Year Seminar](#)

1 (13908) ["Cryptology" - Sandy L Zabell - MoWeFr 2:00PM - 2:50PM](#)

Cryptology is the study of secret writing, or more generally secure communication. We will discuss classical methods of cryptography, followed by the use of the German Enigma machine during World War II, and end by discussing modern cryptosystems such as RSA and PGP, digital signatures, and their use in internet security.

SHC COURSES OFFERED IN THE DEPARTMENTS

ANTHROPOLOGY

[ANTHRO 307-0 - Anthropology of Peace](#)

20 (17319)

Hirokazu Miyazaki - TuTh 11:00AM - 12:20PM

*Cultural and ethnographic approaches to peace, peace building and peace activism. Topics of investigation include the concept of "peaceful societies," cultural mechanisms for conflict resolution, truth and reconciliation, the relationship between peace and commerce, and the role of literature, art and material culture in peace activism. This course includes two guest lectures on global peace activism to be scheduled outside of the normal class meeting times. Students are required to attend both of these events and prepare two or three questions for each guest speaker. The two events are: 1) Atomic Bomb Survivor's Testimony, 2) Frontiers of Atomic Bomb Literature.

[ANTHRO 332-0 - The Anthropology of Reproduction](#)

20 (11810)

Caroline H Bledsoe - Mo 6:00PM - 8:50PM

*The goal of sociocultural anthropology, the largest subfield of anthropology and the core of the discipline, is to understand the dynamics of human variation in social action and cultural thought. A key question is how these variations are produced and reproduced, whether we speak of society (subsistence, ideas) or individuals (biology, psychology, social identity). Conversely, what happens when reproduction fails to occur, or does so when and how it should not. Because reproduction is so strongly associated with biology in our society, viewing it through a cultural lens poses significant challenges to some of our most basic tenets.

[ANTHRO 370-0 - Anthropology in Historical Perspective](#)

20 (11811)

Robert Launay - TuTh 9:30AM - 10:50AM

*Rather than attempting the impossible--an overview of the whole history of the discipline of anthropology--this course will focus on one particular problem: the relationship between theory and ethnographic description in cultural Anthropology. The course will attempt to survey the development of certain schools of thought in the discipline since the mid-nineteenth century: evolutionism; historical particularism; structural-functionalism; culture and personality; cultural materialism; interpretive anthropology.

EARTH AND PLANETARY SCIENCES

[EARTH 342-0 - Contemporary Energy and Climate Change](#)

01 (13095) Yarrow Larue Axford - TuTh 11:00AM - 12:20PM

The increasing worldwide demand for energy presents a number of complex interdisciplinary challenges, from resource depletion to climate change. This class will challenge students to answer the question, how shall we power the world in the 21st century? We will examine the history and geography of energy use; links between energy and climate change; challenge of sustainability; and the fundamental science of climate change.

ECONOMICS

[ECON 307-0 - Economics of Medical Care](#)

20 (11577)

Matthew J Notowidigdo - TuTh 12:30PM - 1:50PM

*This course applies theoretical and empirical tools of microeconomics to the study of health insurance and the health care sector. We will consider topics such as the design and financing of health insurance, the design and interpretation of clinical trials, the behavior of non-profit and for-profit hospitals, the role of competition in the health care market, the determinants of health care spending and the sources of technological change in the health care sector, and the effects of government regulations.

[ECON 323-2 - Economic History of the United States 1865 to Present](#)

20 (11604)

Benjamin Remy Chabot - MoWe 6:30PM - 7:50PM

*The course examines the economic development of the United States since the Civil War to the present. It focuses on both long-term economic trends (like technological advance and industrialization) and the economic causes and consequences of particular events (like the Great Depression).

[ECON 372-0 - Environmental Economics](#)

20 (11641)

Mark P Witte - MoWeFr 2:00PM - 3:20PM

*The environment and our natural resources are scarce yet their values are quite hard to determine. Furthermore, there are a variety of problems with the incentives to use them well. Using the tools of microeconomic analysis and some econometrics, this course will define and examine "environmental problems" in terms of economic efficiency. We will also discuss the methods (and shortcomings of these methods) used by economists and policymakers to place dollar values on environmental amenities (since such valuations will determine what policy options are deemed "efficient"), such as benefit-cost analysis.

ENGLISH

[ENGLISH 388 – Studies in Literature and Religion “Science Fiction and Social Justice”](#)

21 (10467)

Harrison H. King – MoWe 3:30-4:50PM

This course will examine major utopian and dystopian texts and films in relation to social justice issues in the twentieth century and beyond, while following the stories of artists, organizers, and communities that have used speculative world-building to imagine livable, sustainable futures. We will focus on how feminist, anarchist, LGBTQ, and Afrofuturist art and activism have contributed to a substantial critical discourse on the intersections of science, technology, ecology, war, race, gender, sexuality, health, and ability. This course will further examine how artists and activists have understood religion as both impediment and partner to social justice work, while alternatively embracing, subverting, and defying religious authority. We will also attend to how religious myths and imagery are sampled and remixed by science fiction authors to plot an alternative

course for world history. Counts towards the Religion, Law & Politics (RPL) and Religion, Sexuality & Gender (RSG) religious studies major concentration.

ENVIRONMENTAL POLICY AND CULTURE

[ENVR POL 212-0 - Environment and Society](#)

1 (13673)

Susan L Thistle - TuTh 12:30PM - 1:50PM

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.

[ENVR POL 336-0 - Climate Change, Policy, and Society](#)

1 (13674)

Susan L Thistle - TuTh 3:30PM - 4:50PM

Climate change is the worst environmental problem facing the earth. Sea levels will rise, glaciers are vanishing, horrific storms will hit everywhere. After looking briefly at the impacts of climate change on natural and social environments both in the present and near future, we then consider how to best reduce climate change and how to adapt to its impacts. Issues of climate justice, divides between the global North and South, social movements, steps taken in different countries and internationally, and the role of market and regulations are addressed.

[ENVR POL 390-0 - Special Topics in Environmental Policy and Culture](#)

1 (13671)

"Political Anthropology" - Melissa Rosenzweig - MoWe 11:00AM - 12:20PM

This class is an introduction to Political Ecology, a multidisciplinary body of theory and research that analyzes the environmental articulations of political, economic, and social difference and inequality. The key concepts, debates, and approaches in this field address two main questions: (1) How do humans' interactions with the environment shape power and politics? (2) How do power and politics shape humans' interactions with the environment? These questions are critical to understanding and addressing the current issues of climate change, the Anthropocene, and environmental justice. Topics discussed in this class will include environmental scarcity and degradation, sustainability and conservation.

GLOBAL HEALTH

[GBL HLTH 301-0 - Introduction to International Public Health](#)

20 (12011) Noelle Sullivan - TuTh 11:00AM - 12:20PM

25 (12016) William Leonard - Mo 6:00PM - 8:50PM

This course introduces students to pressing disease and health care problems worldwide and examines efforts currently underway to address them. Taking an interdisciplinary approach, the course identifies the main actors, institutions, practices and forms of knowledge production characteristic of what we call "global health" today, and explores the environmental, social, political and economic factors that shape patterns and experiences of illness and healthcare across societies. We will scrutinize the value systems that underpin specific paradigms in the policy and science of global health and place present-day developments in historical perspective. Key topics will include: policies and approaches to global health governance and interventions,

global economies and their impacts on public health, medical humanitarianism, global mental health, maternal and child health, pandemics (HIV/AIDS, Ebola, H1N1, Swine Flu), malaria, food insecurity, health and human rights, and global health ethics.

[GBL HLTH 302-0 - Global Bioethics](#)

20 (12000)

Sarah B Rodriguez - TuTh 12:30PM - 1:50PM

Global health is a popular field of work and study for Americans, with an increasing number of medical trainees and practitioners, as well as people without medical training, going abroad to volunteer in areas where there are few health care practitioners or resources. In addition, college undergraduates, as well as medical trainees and practitioners, are going abroad in increasing numbers to conduct research in areas with few health care resources. But all of these endeavors, though often entered into with the best of intentions, are beset with ethical questions, concerns, and dilemmas, and can have unintended consequences. In this course, students will assess these ethical challenges. In so doing, students will examine core ethical codes, guidelines, and principals - such as solidarity, social justice, and humility - so they will be able to ethically assess global health practices in a way that places an emphasis on the core goal of global health: reducing health inequities and disparities.

[GBL HLTH 320-0 - Qualitative Research Methods in Global Health](#)

1 (12009)

Beatriz Oralia Reyes - MoWe 11:00AM - 12:20PM

This reading intensive course will provide a theoretical foundation and the skills central to qualitative methods for public health research. We will focus on developing and conducting focus groups and individual interviews. Course assignments will provide the opportunity to exercise these skills and those necessary to developing a research proposal, ethnographic field notes, and data collection tools. Further, students will learn the benefits and challenges associated with transcribing, managing, coding, analyzing, and presenting qualitative data. Central to this course is the ethical and methodological issues related to creating qualitative data with people through their stories.

[GBL HLTH 322-0 - The Social Determinants of Health](#)

20 (12010)

Peter Andrew Locke - Mo 2:00PM - 4:50PM

This upper-level seminar in medical anthropology examines the role of social markers of difference including race, class, nationality, gender, sexuality, age and religion in current debates and challenges in the theory and practice of global health. We will explore contemporary illness experiences and therapeutic interventions in sociocultural and historical context through case studies from the US, Brazil, and South Africa. Students will be introduced to key concepts such as embodiment, medicalization, structural violence, the social determinants of health, and bio politics. Central questions of the seminar include: How do social categories of difference determine disease and health in individuals and collectivities? How is medical science influenced by economic and political institutions and by patient mobilization? How does social and economic inclusion/exclusion govern access to treatment as well as care of the self and others? The course will provide advanced instruction in anthropological and related social scientific research methods as they apply to questions of social inequality and public health policy in both the United States and in emerging economic powers. The course draws from historical accounts, contemporary ethnographies, public health literature, media reports, and films.

GBL_HLTH 390-0 - Special Topics in Global Health

20 (12004) - ["Methods in Anthropology/Global Health" - Sera Lewise Young - TuTh 2:00PM - 3:20PM](#)

This class will provide rigorous guidance on how one moves through the scientific process, from articulating scientific questions to answering them in a way that your audience can really relate to. We will do this using data from our ongoing study about if a participatory agricultural intervention can improve maternal and child nutrition in central Tanzania (Clinical trials.gov #: NCT02761876). Specific skills to be developed include human subjects training, formal literature review, hypothesis generation, developing analytic plans, data cleaning, performing descriptive statistics, creation of figures and tables, writing up results, and oral presentation of results. This course will be a terrific foundation for writing scientific manuscripts, theses, and dissertations. Prior experience with qualitative or quantitative analysis is preferred, but not required. Note: This course counts as an alternative to GBL_HLTH 320 towards the Global Health Studies major and minor.

23 (12007) - ["History of Global Health" - Sarah B Rodriguez - TuTh 2:00PM - 3:20PM](#)

In this course, we examine the historical basis of global health, in particular considering the actors, their actions, and the uneven and unequal distribution of power in global health interventions from the late nineteenth century to the present. Taking a chronological as well as thematic approach, we will consider how and why biomedicine became the dominant form of medical practice globally, how it was tied to ideas of modernity, and how biomedical interventions came to dominate global health by looking at the campaigns to fight malaria, smallpox, and HIV, to reduce maternal mortality and morbidity, and to slow human population growth. We will pay particular attention to historical changes and continuities as we consider historical themes and patterns, with the intention of placing - and better understanding - current global health concerns, decisions, and interventions within these historical themes and patterns.

24 (12008) - ["Religion and Bioethics" - Cristina L.H. Traina - TuTh 9:30AM - 10:50AM](#)

Religion intersects with medicine at many levels: patients, practitioners, institutional providers, law, and even international relations. We will look at religion and the ethics of medicine in two ways. First, we will discuss some of the central questions of bioethics: suffering and death; transplant; assisted reproduction; vaccination; the opioid crisis; global health issues; ecology; gene editing; children's freedom to make decisions; and others. At the same time, we will discuss religions' intersection with the practice and ethics of medicine: how religions have influenced the goals of medicine, including end of life care and relief of suffering; how they have shaped the fundamental principles of bioethics; the ethical and religious impact of religiously affiliated hospitals' ethical and religious directives; the challenges of accommodating patients' and practitioners' diverse religious beliefs in a medical system that is not religiously neutral; the impact of religious convictions on global health initiatives; religions' role in converting social crises to medical crises.

GENDER STUDIES

[GNDR ST 321-0 - Gender, Sexuality and History](#)

20 (13692)

"Mapping Sex Geo of 19c Paris" - Tessie P Liu - MoWeFr 11:00AM - 11:50AM

This class explores themes linking sexuality and the making of Paris into a modern commercial capitalist city. Beginning at mid-century, massive engineering projects under Baron Haussmann demolished the twisted winding streets of old medieval Paris to create the modern city of wide boulevards and monumental vistas. This course will draw on readings in feminist and queer theory, urban geography, art history, literature, and social history to understand why advocates and critics of urban capitalist innovations articulated their perspectives through discourses of sexuality.

20 (13695) - ["Gender, Sex & Health Activism" - Amy Ruth Partridge - TuTh 11:00AM - 12:20PM](#)

22 - ["Anthropology of Reproduction" - Caroline H Bledsoe - Mo 6:00PM - 8:50PM](#)

The goal of sociocultural anthropology, the largest subfield of anthropology and the core of the discipline, is to understand the dynamics of human variation in social action and cultural thought. A key question is how these variations are produced and reproduced, whether we speak of society (subsistence, ideas) or individuals (biology, psychology, social identity). Conversely, what happens when reproduction fails to occur, or does so when and how it should not. Because reproduction is so strongly associated with biology in our society, viewing it through a cultural lens poses significant challenges to some of our most basic tenets. Tensions arise in questions of agency vs. control, nature vs. culture, identity construction, reproducing under varying conditions, and so on. The study of reproduction, therefore, offers a window into the heart of anthropology itself.

HISTORY

HISTORY 200-0 - New Introductory Courses in History

20 (10818)

["Sickness and Health in Latin America and the Carib" - Paul F Ramirez - MoWe 12:30PM - 1:50PM](#)

*In 1492 the New World became a crucible for the exchange of diseases, drugs, and therapies between people of American, European, and African origin. The region has been central in the circulation of medical knowledge and materials ever since. This course traces upheavals in the history of medicine, from contact to the present. A key angle of inquiry will be to consider how global frameworks help make sense of local practice, and how local knowledge informed transnational, hemispheric, and Atlantic developments in public health and medicine. We will also ask what medical practitioners today stand to learn from a chronologically deep, culturally informed understanding of healing and illness. Topics include pre-Columbian medicine and conceptions of the human body; the "Columbian Exchange" of pathogens, animals, and people; the global commodification of American plants and botanical knowledge; Catholic, shamanic, and lay healing frameworks; disease eradication campaigns, including the introduction of childhood vaccines and the discovery of the yellow fever vector; and experiments with socialized medicine.

[HISTORY 275-1 - History of Western Science and Medicine: Origins in Early Mod Europe](#)

20 (10784)

Lydia Barnett - TuTh 3:30PM - 4:50PM

*This course explores the social spaces of science and medicine in early modern Europe during the so-called 'Scientific Revolution.' We will survey the varied and surprising spaces in which scientific and medical knowledge was produced, from princely courts and grand cathedrals to humble artisanal workshops and Europe's overseas colonies. In so doing, we will see how science and medicine intersected with religion, politics, and emerging market economies during the first age of European imperialism and globalization.

[HISTORY 378 - Law and Science: A History](#)

20 (10815)

Ken Alder – MoWe 2-3:20PM

*Science and the law have long developed in tandem—and in tension. This course studies the interactions of our two principal theaters of proof, from forensic identification and the insanity plea to the rules of intellectual property and privacy concerns. We begin in the era of witchcraft trials and judicial torture and end in the era of DNA-typing and facial recognition software. Throughout, our goal is to come to terms with changing standards of truth finding and justice.

ISEN - INITIATIVE FOR SUSTAINABILITY & ENERGY AT NU

[ISEN 210-0 - Introduction to Sustainability: Challenges and Solutions](#)

20 (17146)

Eric R Masanet - TuTh 3:30PM - 4:50PM

This course introduces core analysis principles for understanding and assessing sustainability and improvement pathways, with a particular emphasis on life-cycle thinking for holistic sustainability analysis. Students will learn about major challenges for achieving more sustainable societies through the lenses of different overarching analysis principles, including life-cycle analysis, technology stock modeling, cost analysis, and considerations of time, location, and development when assessing opportunities for societal change.

PHILOSOPHY

[PHIL 269-0 - Bioethics](#)

20 (17178)

Instructor TBD - TuTh 3:30PM - 4:50PM

*This course is an analysis of ethical and political issues that arise in medicine, with particular attention to questions posed by developments in biotechnology. Topics to be considered include human research, abortion, euthanasia, genetic engineering, and the allocation of medical resources.

PHIL 361-0 - Topics in Social and Political Philosophy

20 (17244)

[Critical Race and Gender Theory - Jose Maria Medina - MoWe 2:00PM - 3:20PM](#)

*This course explores the intersection of critical race theory and critical gender theory. We will examine the performative and embodied aspects of race, gender and sexuality, giving special attention to intersectionality, performativity theory, queer theory, and critical phenomenology of race, gender, and sexuality. Authors will include: Franz Fanon, Iris Marion Young, Judith Butler, Maria Lugones, Kimberlé Crenshaw, Sarah Ahmed, Mariana Ortega, and Gayle Salamon, among

POLITICAL SCIENCE

[POLI SCI 352-0 - Global Development](#)

20 (13704)

James L Mahoney - TuTh 2:00PM - 3:20PM

*This course explores the economic and social changes that have constituted "development," and that have radically transformed human society. The course focuses on both the historical experience of Europe and the contemporary experience of countries in Africa, Asia, and Latin America. In the historical discussion, we explore the birth of the "nation state" as the basic organizing unit of the international system; the transition from agrarian to industrial economic systems; and the expansion of European colonialism across the globe.

SOCIOLOGY

[SOCIOL 212-0 - Environment and Society](#)

20 (15249)

Susan L Thistle - TuTh 12:30PM - 1:50PM

*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 316-0 - Economic Sociology](#)

20 (15246)

Onur Özgöde – MW 2:00PM – 3:20PM

What does the global financial crisis of 2008 mean for the future of capitalism? Is it the end of the unregulated, free market approach, or is it the start of an authoritarian political order controlled by billionaires? How the United States became riddled with extreme inequality and catastrophic financial crises? To answer these questions we will first examine why the crisis happened. We will ask who should be held responsible, the bankers or the regulators. Then, we will examine the rise of the Keynesian state in the 1930s in response to the Great Depression. In the final part, we will study the demise of Keynesianism in the 1970s. We will see how the Federal Reserve took over the economy, how this led to financial deregulation and the infamous Reagan tax cuts.

[SOCIOL 321-0 - Numbers, Identity & Modernity: How Calculation Shapes Who We Are & What We Know](#)

20 (15252)

Wendy N Espeland - TuTh 2:00PM - 3:20PM

*Our world is awash in numbers. In this class we will consider how we make and use numbers, how we know ourselves through numbers, and the particular kinds of authority we grant to numbers. Using a range of examples including the SAT, college rankings, and statistics about race and sexuality, this class will examine what prompts people to produce numbers, what causes them to spread, how they intervene in the worlds they measure, how they inform our ethics, and how we think about ourselves and others differently as a result.

[SOCIOL 336-0 - Climate Change, Policy, and Society](#)

20 (15253)

Susan L Thistle - TuTh 3:30PM - 4:50PM

*Climate change is the worst environmental problem facing the earth. Sea levels will rise, glaciers are vanishing, horrific storms will hit everywhere. After looking briefly at the impacts of climate change on natural and social environments both in the present and near future, we then consider how to best reduce climate

change and how to adapt to its impacts. Issues of climate justice, divides between the global North and South, social movements, steps taken in different countries and internationally, and the role of market and regulations are addressed.

[SOCIOLOGY 376 – Race/Gender/Sex & Science: Identities & Difference](#)

21 (15144)

Steven G. Epstein – TuTh 3:30-4:50PM

*How do scientific claims and technological developments help transform cultural understandings of race, gender, and sexuality? Conversely, how do cultural beliefs about race, gender, and sexuality influence scientific knowledge and medical practice? This class will take up a series of controversies from the recent past and present to explore the dynamic interplay between expert findings, social identities, and political arguments.

MCCORMICK SCHOOL OF ENGINEERING

[CHEM ENG 365-0 - Sustainability, Technology, and Society](#)

20 (10265)

Harold H Kung, James Paul Dombrowski - TuTh 3:00PM - 4:50PM

Technical discussion of selected topics related to sustainability, sustainable development, global climate changes, natural and renewal resources and utilization, industrial ecology, eco-efficiency, technology related to sustainability such as biofuel, electrification of transportation, and water purification, and role of policy and business risk assessment.

[CHEM ENG 373-0 - Biotechnology and Global Health](#)

20 (10268)

Keith Edward Jaggard Tyo - MoWeFr 3:00PM - 3:50PM

This class will (a) examine the design, development, and commercialization of healthcare technologies for low-income countries and (b) explore recent advances in genetic engineering, metabolic engineering, synthetic biology, and tissue engineering. By linking the two, students will gain an understanding of the myriad of commercialization opportunities and challenges associated with deploying these biotechnology advances as healthcare preventative, diagnostic, or treatment products.

[CIV ENV 303-0 - Environmental Law and Policy](#)

20 (12891)

Keith I Harley - Th 5:00PM - 7:50PM

An introduction to important aspects of environmental law and policy. A wide range of environmental topics are covered, with a focus on national environmental policy as implemented through major federal environmental statutes.

[CIV ENV 368-0 - Sustainability: The City](#)

20 (12880)

Kimberly A Gray - Tu 3:30PM - 6:30PM

Exploration of the issues that motivate the design and engineering of sustainable resource use and development.

MEDILL SCHOOL OF JOURNALISM

JOUR 390-0 - Special Topics - ["Native American Environmental Issues and the Media"](#)

22 (14571)

Patricia Ann Loew – TuTh 10:30AM – 12:20PM

This course introduces students to indigenous issues, such as treaty-based hunting, fishing, and gathering rights; air and water quality issues; mining; land-to-trust issues; and sacred sites. These issues have contributed to tension between Native and non-Native communities and have become the subject of news reports, in both mainstream and tribal media. We will focus on how the media cover these issues and how that coverage contributes to the formation of public opinion and public policy. Students will read and analyze newspaper and on-line news reports and view and critique broadcast news stories and documentaries about Native environmental topics.

SCHOOL OF COMMUNICATION

[COMM ST 227-0 - Communication & Technology](#)

20 (16379)

Jeremy P Birnholtz - TuTh 2:00PM - 3:20PM

Factors informing and shaping the design of everyday objects and our virtual world; psychological aspects of computer-mediated communication and virtual collaboration, including impression relations, group dynamics, and social networks; social and institutional structures in which human communication is situated. Prerequisite for the Digital Media undergraduate curriculum module.

[COMM ST 246-0 - Intro to Health Communication](#)

20 (16380)

Kimberly Brook Pusateri - TuTh 11:00AM - 12:20PM

People who understand communication are uniquely positioned to solve health related problems, and their services are increasingly in demand. As such, this course is designed to familiarize you with the theory and research on communication in health and illness contexts, focusing on how messages from interpersonal, organizational, cultural, and media sources affect health beliefs and behaviors. We will explore communication in health care delivery, health care organizations, as well as health promotion and disease prevention. By taking this course, you will become a more mindful, educated, and effective health communicator.

[COMM ST 383-0 - Media, Communication, and Environment](#)

20 (17240)

James J Schwoch - MoWe 2:00PM - 3:20PM

This course focuses on exploring, understanding, and researching questions and issues related to the environment and climate through the study of media and communication. Topics include electronic waste and outer space debris; environmental security; the digitization of the wilderness; outdoor and recreational activities in conjunction with media technologies and electronic information networks; ways of representing

and communicating environmental and climatological issues through such examples as climate change communication, weather forecasting, documentaries, and feature-length fictional film, television and similar media; examples of environmental and climatological-themed government media and communication; and media-communication-environment in everyday life and pop culture. Student classwork includes lecture material, readings and audiovisual screenings, discussions, providing relevant discussion materials, and producing a research paper-project relevant to the topics and themes of the course.