

Course Title	Course Number	Competency 1	Competency 2	Instructors	Distributional Requirements	Course description from courses.yale.edu/
Air Pollution Control	ENVE 373, CENG 373	Biological & Environmental Influences on Health	Understanding & Interpreting Quantitative Data	Drew Gentner	QR, SC	An overview of air quality problems worldwide with a focus on emissions, chemistry, transport, and other processes that govern dynamic behavior in the atmosphere. Quantitative assessment of the determining factors of air pollution (e.g., transportation and other combustion-related sources, chemical transformations), climate change, photochemical "smog," pollutant measurement techniques, and air quality management strategies. Prerequisite: ENVE 120
Biology of Malaria, Lyme, and Other Vector-Borne Diseases	HLTH 155, MCDB 106, E&EB 106	Biological & Environmental Influences on Health	Understanding & Interpreting Quantitative Data	Alexia Belperron	SC	Introduction to the biology of pathogen transmission from one organism to another by insects; special focus on malaria, dengue, and Lyme disease. Biology of the pathogens including modes of transmission, establishment of infection, and immune responses; the challenges associated with vector control, prevention, development of vaccines, and treatments. Intended for non-science majors; preference to freshmen and sophomores. Prerequisite: high school biology.
Biology of the Immune System	MCDB 430, IBIO 530, MBIO 530, MCDB 530	Biological & Environmental Influences on Health		Aaron Ring et al.	SC	The development of the immune system. Cellular and molecular mechanisms of immune recognition. Effector responses against pathogens. Immunologic memory and vaccines. Human diseases including allergy, autoimmunity, immunodeficiency, and HIV/AIDS. After MCDB 300.
Biology, the World, and Us	MB&B 105, MCDB 105	Biological & Environmental Influences on Health	Health & Societies	John Carlson, Josh Gendron, Ronit Kaufman, Jennifer Marlon	SC	Biological concepts taught in context of current societal issues, such as emerging diseases, genetically modified organisms, green energy, and the human brain and its disorders. Emphasis on biological literacy to enable students to evaluate scientific arguments.
Climate Change	EPS 101	Biological & Environmental Influences on Health		Mary-Louise Timmermans, Noah Planavsky	SC	An introductory course that explores the science of global climate change. We analyze processes that regulate the climate on Earth, assess the scientific evidence for global warming, and discuss consequences of climate change. We explore Earth's climate history as it relates to the present climate as well as future climate projections. Uncertainty in the interpretation of climate observations and future projections are examined.
Environmental Justice in South Asia	ANTH 322, SAST 306, EVST 324	Biological & Environmental Influences on Health	Political Economy & Governance in Health	Kalyanakrishnan Sivaramakrishnan	SO	Study of South Asia's nation building and economic development in the aftermath of war and decolonization in the 20th century. How it generated unprecedented stress on natural environments; increased social disparity; and exposure of the poor and minorities to environmental risks and loss of homes, livelihoods, and cultural resources. Discussion of the rise of environmental justice movements and policies in the region as the world comes to grips with living in the Anthropocene.
Epigenetics	MCDB 350, MCDB 650	Biological & Environmental Influences on Health		Nadya Dimitrova, Yannick Jacob, Josien van Wolfswinkel	SC	Study of epigenetic states and the various mechanisms of epigenetic regulation, including histone modification, DNA methylation, nuclear organization, and regulation by non-coding RNAs. Detailed critique of papers from primary literature and discussion of novel technologies, with specific attention to the impact of epigenetics on human health. Introductory courses (BIOL 101-104) and two MCDB 200-level courses (strongly recommended: MCDB 202 and MCDB 200 or MCDB 210) or instructor permission.
Evolution and Medicine	HLTH 250, E&EB 335, E&EB 635	Biological & Environmental Influences on Health		Brandon Ogbunu	SC, WR	Introduction to the ways in which evolutionary science informs medical research and clinical practice. Diseases of civilization and their relation to humans' evolutionary past; the evolution of human defense mechanisms; antibiotic resistance and virulence in pathogens; cancer as an evolutionary process. Students view course lectures on line; class time focuses on discussion of lecture topics and research papers. Prerequisite: BIOL 101-104.
Hormones, Evolution, and Human Behavior	ANTH 217	Biological & Environmental Influences on Health		Richard Bribiescas	SO	This course examines the evolution of human behavior through the lens of endocrinology and life history theory. Topics include the evolution of social behavior, pair bonding, parental investment, aggression, sex, feeding behavior, and risk tolerance. This course also addresses these topics with a mindful eye towards variation throughout the human life course from birth to death. Specific attention is made towards examining behavioral endocrinology within the context of human diversity in all its forms, social, biological, and ecological as well as in comparison with other species including non-human primates. ANTH 116, ANTH 242, or a similar course is recommended before enrolling in this course.

Human Evolution	ANTH 267, ARCG 267	Biological & Environmental Influences on Health	Understanding & Interpreting Quantitative Data	Jessica Thompson	SO	This course deals with scientific questions of human origins and evolution and what we think we know of our own ancestry over the past 6 million years. We begin with an overview of theories and techniques such as evolutionary theory, paleontology, archaeology, paleoenvironmental reconstruction, phylogenetic analysis, genetics, and functional morphology. We critically examine what key debates have taken place over the last century of exploration and discovery in human evolutionary research, learning how unconventional thinking and spectacular discoveries have shaped current knowledge of our origins. Students meet quirky historical characters, and the fossil relatives themselves to understand their morphology, life history patterns, locomotor repertoire, behavior, and dietary constraints. Students discover what a surprising amount of information scientists can discern from fragmentary fossils, and are brought up to date with the most current discoveries and debates in human evolution.
Managing the Clean Energy Transition: Contemporary Energy and Climate Change Policy Making	GLBL 730	Biological & Environmental Influences on Health	Political Economy & Governance in Health	Paul Simons		This course is an innovative collaboration between Yale School of Public Health, Yale School of the Environment, and Vermont Law School, and includes students from both Yale and Vermont Law School. In the course, interdisciplinary student teams carry out applied projects that incorporate elements of climate justice, climate policy, and/or law with public health. Each team works with a partner organization (e.g., state agency, community organization, other nongovernmental organization) or on an ongoing project of the Yale Center on Climate Change and Health and/or the Vermont Law School Environmental Justice Clinic. A given team may include students from one institution or from both institutions, in which case team members work together remotely. The course affords the opportunity to have a real-world impact by applying concepts and competencies learned in the classroom. This course should be of interest to graduate and professional students across the University and is open to Yale College juniors and seniors.
Molecular Mechanisms of Disease	PATH 690	Biological & Environmental Influences on Health		Demetrios Braddock, Carlos Fernandez-Hernando		This course covers aspects of the fundamental molecular and cellular mechanisms underlying various human diseases. Many of the disorders discussed represent major forms of infectious, degenerative, vascular, neoplastic, and inflammatory disease. Additionally, certain rarer diseases that illustrate good models for investigation and/or application of basic biologic principles are covered in the course. The objective is to highlight advances in experimental and molecular medicine as they relate to understanding the pathogenesis of disease and the formulation of therapies.
Perspectives on Biological Research	SCIE 010	Biological & Environmental Influences on Health	Performance Representation & Health	Sandy Chang	WR, SC	The goal of this two course series is to introduce Science, Technology, and Research Scholars 1 (STARS1) passionate about conducting research in the life sciences to the outstanding research opportunities available to them. Thirteen Yale faculty, well known as excellent undergraduate research mentors, will lecture on their own research and serve as potential future research mentors. Students emerge from this course with an appreciation for the diverse research conducted by Yale biologists. They also learn skills essential for any successful scientist, including how to (1) read the primary scientific literature on the research conducted by each faculty, (2) present this material to the class and, (3) write a grant proposal. Credit for SCIE 010 only on completion of SCIE 011; one course credit, one Sc credit, and guaranteed summer research funding is awarded for successful completion of the year's work. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program.
Bodies and Pleasures, Sex and Genders	WGSS 205	Health & Societies	Historical Approaches	Regina Kunzel	SO	This seminar engages cultural analyses of embodiment, its pleasures—and by extension its pains—to interrogate sex, sexuality, and gender as analytical categories. Its aim is to critically evaluate formative concepts and theories that have been subject to debates within gender studies, psychoanalysis, philosophy, anthropology, critical race studies, and history. Readings by Freud, Foucault, Berlant, Butler, Rubin, and others help explain how terms like “women” and “men,” “femininity” and “masculinity,” as well as “homosexuality” and “heterosexuality,” “gender” and “transgender” have structured people’s experiences and their perceptions of their bodies. The potential our bodies have for “hanging on to ourselves” occupies a central position within scholarly canons, revealing also how these canons are always already imbricated in racialized hierarchies.
Current Issues in Medicine and Public Health	HLTH 081	Health & Societies		Robert Bazell		Analysis of issues in public health and medicine that get extensive media attention and provoke policy debates. Covid-19 is the primary focus this semester with a survey of epidemiology and other fields related to its coverage. Students critique and produce medical journalism and look at the history of coverage of topics such as vaccination, the value of cancer screening and genetic testing, determinants of a healthy lifestyle, the U.S. role in global health, and the cost of health care. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program.

Global Health Ethics	HLTH 420, EP&E 346	Health & Societies	Political Economy & Governance in Health	Cara Kiernan Fallon	SO, WR	When a new virus sweeps the globe, how should physicians, governments, and societies respond? What are an individual's rights and responsibilities in the face of illness, and how do public health organizations prioritize competing claims? How should issues of consent, quarantine, compulsory treatment, and surveillance be managed, and how do these issues change as they transcend geographic borders? This seminar examines critical issues in global health through the method of ethical analysis. The course begins with the foundations for analyzing ethical problems, considering moral and ethical frameworks for health. We examine dilemmas such as quarantines, access to care, and the limits of autonomy, and we delve into critical challenges of vulnerable populations and global inequities. We conclude by analyzing emerging tensions posed by artificial intelligence and digital health technologies. Drawing together global health perspectives and ethical analysis, we consider the principles, tradeoffs, and central tensions that inform global health today.
Health and Illness in Social Context	ER7M 127, SOCY 127, EVST 127, WGSS 127	Health & Societies		Alka Menon	SO	Present-day medicine and health care provide solutions to an ever-increasing array of human problems. Yet the achievement of health can be elusive. This course provides a broad introduction to the domains of health and illness in the U.S., with some coverage of international trends and topics. Students analyze how our personal health and public health are shaped by social structures, political struggles, expert knowledge, and medical markets. Topics include the cultural and social meanings associated with health and illness; inequalities in health and health care access and provision; controversies surrounding healthcare, medical knowledge production, and medical decision-making; and the social institutions of the health care industry.
Mass Incarceration in the Soviet Union and the United States	ER&M 279, HIST 295J, HUMS 286, PHIL 433	Health & Societies	Historical Approaches	Timothy Snyder, Jason Stanley	HU	The Franke Seminar. An investigation of the experience and purposes of mass incarceration in the Soviet Union and the United States in the twentieth century. Incarceration is central to the understanding, if not usually to the self-understanding, of a society. It is thus a crucial aperture into basic questions of values and practices. This course proposes a frontal approach to the subject, by investigating two of the major carceral systems of the twentieth century, the Soviet and the American. Intensive reading includes first-person accounts of the Gulag and American prison as well as scholarly monographs on the causes of mass incarceration in different contexts. Brief account is taken of important comparative cases, such as Nazi Germany and communist China. Guest lectures and guest appearances are an important element of our teaching.
Medical Anthropology at the Intersections: Theory and Ethnography	ANTH 448	Health & Societies		Marcia Inhorn	SO	The field of medical anthropology boasts a rich theoretical and empirical tradition, in which critically acclaimed ethnographies have been written on topics ranging from local biologies to structural violence. Many scholars engage across the social science and humanities disciplines, as well as with medicine and public health, offering both critiques and applied interventions. This medical anthropology seminar showcases the theoretical and ethnographic engagements of nearly a dozen leading medical anthropologists, with a focus on their canonical works and their intersections across disciplines. Prerequisite: A prior medical anthropology course or permission of instructor.
Medicine and the Humanities: Certainty and Unknowing	CSSY 350	Health & Societies		Matthew Morrison		Sherwin Nuland often referred to medicine as "the Uncertain Art." In this course, we address the role of uncertainty in medicine, and the role that narrative plays in capturing that uncertainty. We focus our efforts on major authors and texts that define the modern medical humanities, with primary readings by Mikhail Bulgakov, Henry Marsh, Atul Gawande, and Lisa Sanders. Other topics include the philosophy of science (with a focus on Karl Popper), rationalism and romanticism (William James), and epistemology and scientism (Wittgenstein). Events permitting, field trips take us to the Yale Medical Historical Library and the Yale Center for British Art.
Race, Class, and Gender in American Cities	AFAM 196, AMST 196, ER&M 226, EVST 196, SOCY 190	Health & Societies		Laura Barraclough	SO	Examination of how racial, gender, and class inequalities have been built, sustained, and challenged in American cities. Focus on the twentieth and twenty-first centuries. Topics include industrialization and deindustrialization, segregation, gendered public/private split, gentrification, transit equity, environmental justice, food access, and the relationships between public space, democracy, and community wellbeing. Includes field projects in New Haven.

Race, Medicine, and Technology	SOCY 351, SOCY 545	Health & Societies	Historical Approaches	Alka Menon	WR, SO	Medicine and technology are important sources of authority and institutionalization in modern societies. Drawing insights from across sociological subfields, the course offers an in-depth investigation of race, medicine, and technology in the 20th and 21st centuries. This course examines the role of medicine and related technologies in defining race and perpetuating racism. We trace how race became an important component of biomedical research in the U.S. We also follow particular medical technologies across borders of time and space, using them to understand race and nationhood in transnational perspective. Taking a broad view of technology, we analyze cutting-edge, state-of-the-art technologies alongside older, more mundane technologies and infrastructures. Ultimately, we consider how medical technologies are not just treatments for individual patients but also windows into broader social and cultural structures and processes.
Reproductive Technologies	ANTH 011	Health & Societies		Marcia Inhorn	SO	Introduction to scholarship on the anthropology of reproduction. Focus on reproductive technologies such as contraceptives, prenatal diagnostics, childbirth technologies, abortion, assisted reproduction, surrogacy, and embryonic stem cells. The globalization of reproductive technologies, including social, cultural, legal, and ethical responses. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program.
Social Mobility Today	FREN 958, WGSS 783	Health & Societies		Morgane Cadieu		The seminar examines the representation of upward mobility, social demotion, and interclass encounters in contemporary literature and cinema. Topics include emancipation and determinism; inequality, precarity, and class struggle; social mobility and migration; the interaction between social class and literary style; intersectionality; mixed couples; labor and the workplace; homecomings. We also discuss ways of approaching a contemporary corpus. Works by Angot, Erbon, Ernaux, Houellebecq, Linhart, Louis, NDiaye, Taïa. Films by Cantet, Diop, Kechiche, Klotz. Theoretical readings by Berlant, Bourdieu, Foucault, Nancy, Rancière. Members of the seminar have the opportunity to compare French mobilities to other literary traditions. Conducted in English. No knowledge of French required.
The Displaced: Migrant and Refugee Narratives of the 20th and 21st Centuries	AFAM 459, AMST 479, ER&M 402	Health & Societies	Political Economy & Governance in Health	Leah Mirakhor	HU	This course examines a series of transnational literary texts and films that illuminate how the displaced—migrants, exiles, and refugees—remake home away from their native countries. The twentieth and twenty-first centuries have produced massive displacements due to wars, genocides, racial, ethnic and religious conflicts, economic and climate change, among other factors. Our course focuses on several texts that explore questions of home, nation, and self in the context of specific historical events such as the Holocaust, civil rights movements in the U.S., internment, the Indian partition, African decolonization, and Middle Eastern/Arab ethno-religious conflicts and wars. We examine these events alongside the shifting legal and political policies and categories related to asylum, humanitarian parole, refugee, and illegal alien status. Exploring themes such as nostalgia, longing, trauma, and memory, we look at the possibilities and limitations of creating, contesting, and imagining home in the diaspora. Our objective is to debate and develop the ethical, political, geographic, and imaginative articulations of home in an era of mass displacements and geo-political crises. We examine how notions of home are imagined alongside and against categories of race, gender, and sexuality.
Writer/Rioter: Public Writing in the 21st Century	ER&M 401	Health & Societies	Performance Representation & Health	Leah Mirakhor	HU	In his collection Lunch with A Bigot: The Writer in the World, Amitava Kumar asks “What divides the writer from the rioter?” This class is concerned with unpacking the various ways writers participate in the 21st century world as disturbers of the peace. This century has seen great advances in technology, health, alternative energies, new forms of communication, but also vast consolidations of power, mass incarceration, climate change, poverty, homelessness, wars, state surveillance, and sexual violence. Our current historical moment increasingly asks us to craft broader and deeper connections between personal, local, national, and international issues. This course explores cultural criticism on a range of issues that examine the intersections of history, politics, media, and various crises in the 21st century by writers from a variety of backgrounds: journalists, academics, activists, artists, scientists, and politicians. We analyze how these writers use their professional expertise to craft work for the public arena, and what it means to create a history of the present. The course’s four sections cover various responses to some of the issues most publicly contested across college campuses nationwide, and here at Yale: racial unrest, sexual assault, climate change, poverty, incarceration, fascism, and gun violence.

Biomedical Futures and Michael Crichton's Monsters	AMST 215, HIST 485, HSHM 217, HUMS 219	Historical Approaches		Joanna Radin	HU, SO	What forms of life have been produced by modern science? The literal life-changing technologies that began to emerge after the Second World War also provoked new anxieties. They expressed themselves in the speculative fiction of Michael Crichton in terms of monsters: the virus in The Andromeda Strain, the androids in Westworld, the velociraptors of Jurassic Park, and even the patients maimed by gunshot wounds in ER. Crichton wrote thrilling stories that also asked his readers to consider what monsters humans could make if they didn't stop to consider whether or not they should. This course examines the emergence of modern life science to consider what it would take to produce more life-sustaining futures.
Collecting Nature	HIST 289J, HSAR 399, HSHM 407, HUMS 220	Historical Approaches	Health & Societies	Paola Bertucci	HU, WR	A history of museums before the emergence of the modern museum. Focus on: cabinets of curiosities and Wunderkammern, anatomical theaters and apothecaries' shops, alchemical workshops and theaters of machines, collections of monsters, rarities, and exotic specimens.
Environmental History of Africa	AFST 839, HIST 839	Historical Approaches	Biological & Environmental Influences on Health	Robert Harms		An examination of the interaction between people and their environment in Africa and the ways in which this interaction has affected or shaped the course of African history.
Evolutionary Biology of Women's Reproductive Lives	ANTH 230, WGSS 230	Historical Approaches	Performance Representation & Health	Claudia Valeggia	SC	Evolutionary and biosocial perspectives on female reproductive lives. Physiological, ecological, and social aspects of women's development from puberty through menopause and aging, with special attention to reproductive processes such as pregnancy, birth, and lactation. Variation in female life histories in a variety of cultural and ecological settings. Examples from both traditional and modern societies.
Histories of Postcolonial Africa: Themes, Genres, and the Phantoms of the Archive	AFST 836, HIST 836	Historical Approaches		Benedito Machava		This course is both historiographic and methodological. It is meant as an introduction to the major themes that have dominated the study of postcolonial Africa in recent years, and the material circumstances in which they were produced. We pay close attention to the kinds of sources and archives that scholars have employed in their works, and how they addressed the challenges of writing contemporary histories in Africa. We center our weekly meetings around one key text and one or two supplementary readings. We engage with works on politics, violence, environment and technology, women and gender, affect, fashion, leisure, and popular culture.
Introduction to Biological Anthropology	ANTH 116	Historical Approaches	Biological & Environmental Influences on Health	Jessica Thompson	SC, SO	Introduction to human and primate evolution, primate behavior, and human biology. Topics include a review of principles of evolutionary biology and basic molecular and population genetics; the behavior, ecology, and evolution of nonhuman primates; the fossil and archaeological record for human evolution; the origin of modern humans; biological variation in living humans; and the evolution of human behavior.
Medicine and Society in American History	HIST 006, HSHM 005	Historical Approaches	Health & Societies	Rebecca Tannenbaum	HU, WR	Disease and healing in American history from colonial times to the present. The changing role of the physician, alternative healers and therapies, and the social impact of epidemics from smallpox to AIDS. Enrollment limited to first-year students.
Pandemics in Africa: From the Spanish Influenza to Covid-19	AFST 385 • EP&E 350 • HIST 391J	Historical Approaches	Health & Societies		SO	The overarching aim of the course is to understand the unfolding Covid-19 pandemic in Africa in the context of a century of pandemics, their political and administrative management, the responses of ordinary people, and the lasting changes they wrought. The first eight meetings examine some of the best social science-literature on 20th-century African pandemics before Covid-19. From the Spanish Influenza to cholera to AIDS, to the misdiagnosis of yaws as syphilis, and tuberculosis as hereditary, the social-science literature can be assembled to ask a host of vital questions in political theory: on the limits of coercion, on the connection between political power and scientific expertise, between pandemic disease and political legitimacy, and pervasively, across all modern African epidemics, between infection and the politics of race. The remaining four meetings look at Covid-19. We chronicle the evolving responses of policymakers, scholars, religious leaders, opposition figures, and, to the extent that we can, ordinary people. The idea is to assemble sufficient information to facilitate a real-time study of thinking and deciding in times of radical uncertainty and to examine, too, the consequences of decisions on the course of events. There are of course so many moving parts: health systems, international political economy, finance, policing, and more. We also bring guests into the classroom, among them frontline actors in the current pandemic as well as veterans of previous pandemics well placed to share provisional comparative thinking. This last dimension is especially emphasized: the current period, studied in the light of a century of epidemic disease, affording us the opportunity to see path dependencies and novelties, the old and the new.

Pandemics, Protests, and Power: A History of 2020	HIST 431J	Historical Approaches	Health & Societies	Michael Brenes	HU, WR	This course explores the history of the year 2020 through the themes of "pandemics, protests, and power." We seek to examine the past in the present, looking at how American and international history since the end of the 19th century shaped the tumultuous events of 2020. We review the circumstances and timeline of events that led to the Covid-19 pandemic, mass protests against police brutality, and the outcome of the 2020 election through a historical perspective, covering such topics as the history of mass incarceration, racial inequality since the Civil War, the history of the conservative movement since the 1960s, American foreign policy since World War II, and the rise of neoliberal capitalism after the 1970s. By taking an expansive, historical approach to the events that made 2020 such a momentous year, we aim to answer the looming question: Where did 2020 come from?
Problems in the History of Medicine and Public Health	HIST 930, HSHM 701	Historical Approaches	Health & Societies	John Warner		An examination of the variety of approaches to the social, cultural, and intellectual history of medicine, focusing on the United States. Reading and discussion of the recent scholarly literature on medical cultures, public health, and illness experiences from the early national period through the present. Topics include the role of gender, class, ethnicity, race, religion, and region in the experience of health care and sickness and in the construction of medical knowledge; the interplay between vernacular and professional understandings of the body; the role of the marketplace in shaping professional identities and patient expectations; health activism and social justice; citizenship, nationalism, and imperialism; and the visual cultures of medicine.
Gender and Sexuality in American Politics and Policy	AMST 724 • PLSC 868 • WGSS 724	Performance Representation & Health	Health & Societies	Dara Strolovitch		This seminar familiarizes students with foundational work on and approaches to the study of gender and sexuality in American politics and public policy. It explores empirical work that addresses these topics, a range of theoretical and epistemological approaches to them, and the social scientific methods that have been used to examine them. It explores the history, findings, and controversies in research about gender and sexuality in American politics and political science, examining work within several subfields of American politics (e.g., political development; public law; political behavior; legislative studies; public policy; interest groups and social movements), important work from other disciplines, and research that does not fit neatly into traditional disciplinary categories, paying particular attention to the implications of this "messiness" for the study of gender, sexuality, and politics. We are attentive to the complicated histories of science and social science when it comes to the study of gender and sexuality and to the ways in which gender and sexuality intersect with other politically relevant categories, identities, and forms of marginalization, such as race, ethnicity, class, and ideological and partisan identification.
Introduction to Women's, Gender, and Sexuality Studies	WGSS 600	Performance Representation & Health		Roderick Ferguson		Introduction to women's, gender, and sexuality studies as a field of knowledge and to the interdiscipline's structuring questions and tensions. The course genealogizes feminist and queer knowledge production, and the institutionalization of WGSS, by examining several of our key terms.
Medicine and Empire	AFAM 752, HIST 937, HSHM 761	Performance Representation & Health	Historical Approaches	Carolyn Roberts		A reading course that explores medicine in the context of early modern empires with a focus on Africa, India, and the Americas. Topics include race, gender, and the body; medicine and the environment; itineraries of scientific knowledge; enslaved, indigenous, and creole medical and botanical knowledge and practice; colonial contests over medical authority and power; indigenous and enslaved epistemologies of the natural world; medicine and religion.
Medicine and Race in the Slave Trade	AFAM 213, AFST 481, HIST 383J, HSHM 481	Performance Representation & Health	Historical Approaches	Carolyn Roberts	WR, HU	Examination of the interconnected histories of medicine and race in the slave trade. Topics include the medical geography of the slave trade from slave prisons in West Africa to slave ships; slave trade drugs and forced drug consumption; mental and physical illnesses and their treatments; gender and the body; British and West African medicine and medical knowledge in the slave trade; eighteenth-century theories of racial difference and disease; medical violence and medical ethics.
Native American Health	ER&M 412, PSYC 312	Performance Representation & Health	Historical Approaches	Christopher Cutter, Mark Beitel	SO	Issues of health policy, research, and service delivery in Native American communities, with a focus on historical antecedents that shape health outcomes and social policy for indigenous communities. Urgent problems in health and wellness, with special attention to Native American mental health. The roles of the Indian Health Service, state and local agencies, and tribal health centers; comparison of Native American and European American conceptions of health and illness.
Sex and Gender in Society	AMST 134, ER&M 264, SOCY 134, WGSS 110	Performance Representation & Health	Health & Societies	Rene Almeling	SO	Introduction to the social processes through which people are categorized in terms of sex and gender, and how these social processes shape individual experiences of the world. Sex and gender in relation to race/ethnicity, class, sexuality, nationality, education, work, family, reproduction, and health.
Africa in International Relations	AFT 175, PLSC 175	Political Economy & Governance in Health		David Simon	SO	This courses examines key facets of how African countries interact with the rest of the world, and with other countries on the continent. Focusing mostly on Sub-Saharan African countries, it looks at international economic relations (focusing on aid but also addressing trade, investment, and debt); peacemaking and peacebuilding; and regional governance institutions.

Bioethics, Politics, and Economics	PLSC 313, EP&E 380	Political Economy & Governance in Health		Stephen Latham	SO	Ethical, political, and economic aspects of a number of contemporary issues in biomedical ethics. Topics include abortion, assisted reproduction, end-of-life care, research on human subjects, and stem cell research.
Data Governance in the Digital Age	GLBL 395	Political Economy & Governance in Health		Nathaniel Raymond	SO	The information revolution is causing the rapid mass adoption of information communication technologies (ICTs) across nations, demographics, and sectors in the early 21st Century—such as mobile devices, social media platforms, “big data,” artificial intelligence (AI), and machine learning, geospatial mapping applications, and the Internet of Things (IoT). However, 20th Century international data governance policies, normative frameworks, and domestic regulations are struggling to keep pace with the disruptive impacts ICTs are having on an increasingly digitally networked world. This seminar explores critical issues, trends, and events relevant to both the adaption of existing data governance regimes to meet these challenges and the creation of new regimes by international organizations, the private sector, civil society, and national governments. The primary learning goal of the course is to equip students with the skills to critically read and apply extant international data governance policies in concrete sector-specific contexts (i.e. corporate, governmental, humanitarian, development, etc.). Additionally, students learn to identify gaps in current regimes and to be literate in the major ongoing debates on these issues at the United Nations, the EU, the United States Congress, and other critical loci of policy development.
Democracy and Sustainability	EVST 212, PLSC 212, EP&E 390	Political Economy & Governance in Health	Biological & Environmental Influences on Health	Michael Fotos	SO, WR	Democracy, liberty, and the sustainable use of natural resources. Concepts include institutional analysis, democratic consent, property rights, market failure, and common pool resources. Topics of policy substance are related to human use of the environment and to U.S. and global political institutions.
Health Economics and Public Policy	ECON 170	Political Economy & Governance in Health		Howard Forman	SO	Application of economic principles to the study of the U.S. health care system. Emphasis on basic principles about the structure of the U.S. system, current problems, proposed solutions, and the context of health policy making and politics. After introductory microeconomics.
Humanitarian Interventions: Ethics, Politics, and Health	ANTH 386, GLBL 393	Political Economy & Governance in Health		Catherine Panter-Brick	SO, WR	Analysis of humanitarian interventions from a variety of social science disciplinary perspectives. Issues related to policy, legal protection, health care, morality, and governance in relation to the moral imperative to save lives in conditions of extreme adversity. Promotion of dialogue between social scientists and humanitarian practitioners.
Politics of Gender and Sexuality in the United States	AMST 427, PLSC 269, WGSS 427	Political Economy & Governance in Health	Health & Societies	Dara Strolovitch	SO	The 2016 Presidential election made clear that gender matters a great deal in American politics, but it also revealed that how gender matters is far from obvious. This course explores the ways in which gender and sexuality shape and are shaped by American politics and public policy. We explore the history, findings, and controversies in research about gender and sexuality in American politics from a range of approaches, examining what political science research helps us understand about questions such as: Does gender influence political campaigns and whether people will vote for particular candidates? Once elected, are gender and sexuality related to legislators’ behavior in office? How are norms related to race, class, gender, and sexuality reflected in and constructed by public policy? We also explore feminist, queer, and intersectional theories and methodologies and important work from other disciplines and interdisciplines, paying particular attention to the implications of intersectionality for understanding gender, sexuality, and politics. We also analyze the ways in which gender and sexuality intersect with other politically salient categories, identities, and forms of marginalization, including race, ethnicity, class, and ideological and partisan identification, paying particular attention to their implications for the 2016, 2018, and 2020 elections.
Sex and Global Politics	ANTH 381, WGSS 378	Political Economy & Governance in Health	Performance Representation & Health	Graeme Reid	SO	Global perspectives on the sexual politics of gender identity, sexual orientation, and human rights. Examination of historical, cultural, and political aspects of sexual orientation and gender identity in the context of globalization.
Sustainability: Environment, Energy, and the Economy in the 21st Century	EVST 292, GLBL 217, PLSC 149	Political Economy & Governance in Health	Biological & Environmental Influences on Health	Daniel Esty	SO	Sustainability as a guiding concept for addressing twenty-first century tensions between economic, environmental, and social progress. Using a cross-disciplinary set of materials from the “sustainability canon,” students explore the interlocking challenges of providing abundant energy, reducing pollution, addressing climate change, conserving natural resources, and mitigating the other impacts of economic development.
Theory and Politics of Sexual Consent	AMST 382, WGSS 372	Political Economy & Governance in Health	Health & Societies	Joseph Fischel	SO	Political, legal, and feminist theory and critiques of the concept of sexual consent. Topics such as sex work, nonnormative sex, and sex across age differences explored through film, autobiography, literature, queer commentary, and legal theory. U.S. and Connecticut legal cases regarding sexual violence and assault.

Data Exploration and Analysis	S&DS 230/530, PLSC 530	Understanding & Interpreting Quantitative Data		Ethan Meyers	QR	Survey of statistical methods: plots, transformations, regression, analysis of variance, clustering, principal components, contingency tables, and time series analysis. The R computing language and Web data sources are used. Prerequisite: a 100-level Statistics course or equivalent, or with permission of instructor.
Introduction to Statistics: Medicine	S&DS 105	Understanding & Interpreting Quantitative Data		Ethan Meyers, Jonathan Ruening-Schrer	QR	Statistical methods used in medicine and medical research. Practice in reading medical literature competently and critically, as well as practical experience performing statistical analysis of medical data.
Labor Economics: Inequality and Social Mobility	ECON 434	Understanding & Interpreting Quantitative Data		Orazio Attanasio	SO	The objective of this advanced course is to study various aspects of inequality and social mobility and to understand their trends over time and their drivers. Although we briefly study some international comparisons, the focus of the course is inequality in the US and, to a less extent, the UK. We consider inequalities among different countries only tangentially. Prerequisites: ECON 121 and Econometrics.
Political Economy of Foreign Aid	PLSC 123	Understanding & Interpreting Quantitative Data	Political Economy & Governance in Health	Peter Aronow	SO	Introduction to modern quantitative research methods in international political economy, with a focus on empirical evidence related to foreign aid. The state of knowledge regarding the effects of development assistance on democratization, governance, human rights, and conflict. The challenges of drawing causal inferences in the domain of international political economy.
Probability and Statistics	S&DS 238/538	Understanding & Interpreting Quantitative Data		Joseph Chang	QR	Fundamental principles and techniques of probabilistic thinking, statistical modeling, and data analysis. Essentials of probability, including conditional probability, random variables, distributions, law of large numbers, central limit theorem, and Markov chains. Statistical inference with emphasis on the Bayesian approach: parameter estimation, likelihood, prior and posterior distributions, Bayesian inference using Markov chain Monte Carlo. Introduction to regression and linear models. Computers are used for calculations, simulations, and analysis of data. After or concurrently with MATH 118 or 120.
Public Finance I	ECON 680	Understanding & Interpreting Quantitative Data	Political Economy & Governance in Health	Orazio Attanasio		Major topics in public finance including externalities, public goods, benefit/cost analysis, fiscal federalism, social insurance, retirement savings, poverty and inequality, taxation, and others. Applications are provided to crime, education, environment and energy, health and health insurance, housing, and other markets and domains. The course covers a variety of applied methods including sufficient statistics, randomized control trials, hedonic models, regression discontinuity, discrete choice, spatial equilibrium, dynamic growth models, differences-in-differences, integrated assessment models, applied general equilibrium, event studies, firm production functions, learning models, general method of moments, and propensity-score reweighting estimators.
Visualization of Political and Social Data	PLSC 349	Understanding & Interpreting Quantitative Data		Alexander Coppock	QR, SO	This course is an introduction to data visualization with a focus on political and social data. Our main textbook is <i>The Visual Display of Quantitative Information</i> by Edward Tufte, a foundational book that explores the history of data visualization and offers a perspective on how graphs should be constructed. We also learn from other visualization pioneers not included in Tufte's review such as W.E.B. Du Bois and Florence Nightingale. Our secondary textbook is the <i>ggplot2</i> book by Hadley Wickham, an indispensable resource for constructing statistical graphs in the programming language R. The main goal of the course is to help students to communicate both "what we know and why we think we know it" through excellent data visualization. Prerequisite: Introductory course in statistics and probability. Background familiarity with learning from random samples and the construction of confidence intervals is useful. Students do not need to know how to program in R as it will be covered extensively.
Global Health Research Colloquium	HLTH 490	Required		Robert Hecht		This course is designed for Yale College seniors or graduate students who are synthesizing data from global health fieldwork and preparing manuscripts that are suitable for submission to a peer-reviewed journal. Enrollment is limited to 18, and preference will be given to Global Health Fellows. The course meets weekly, but the format of individual course sessions changes as described in detail in the syllabus. Students will receive one-on-one instruction and mentorship from one of the course professors, participate in peer-review in small work groups, give a research-in-progress presentation, and develop a manuscript suitable for publication in a peer-reviewed journal. Priority will be given to Global Health Fellows. Students must have completed global health fieldwork.