



HARVARD UNIVERSITY PH.D. PROGRAM IN HEALTH POLICY DISTRIBUTION REQUIREMENTS¹ 2023-2024

Students must fulfill distribution requirements in 3 areas outside of their concentration. The areas include all the current concentrations (Decision Sciences, Economics, Management, Methods for Policy Research, and Political Analysis), the former concentration in Ethics, and three additional areas (Mental Health Policy, History, and Health Equity and Social Determinants). **In order to fulfill a distribution requirement, a student must take the equivalent of a 4-unit FAS course in that area.** (At the Harvard Chan School of Public Health, 5 credits is equivalent to a 4-unit FAS course; at HBS, a 3-credit MBA course is equivalent to a one-semester FAS course.) **Please note that courses taught entirely online may not be used to satisfy distribution requirements.**

In addition, the PhD program requires every student to take two one-semester courses in statistics/quantitative methods. The courses taken to fulfill this requirement will satisfy a distribution requirement in Methods for Policy Research.

Courses that satisfy distribution requirements include, but are not restricted to, the courses listed below. Students may petition to count a course not on this list by emailing the request and the course syllabus to DGS Meredith Rosenthal and copying Debbie Whitney and Colleen Yout.

DECISION SCIENCES

GHP 201. Advanced Modeling for Health System Analysis and Priority Setting [SPH]

Stephane Verguet

Spring 2; TuTh 9:45-11:15

2.5 credits SPH = 2 credits FAS

This course directly builds on GHP 501 and offers advanced methods for modeling for health system analysis and priority setting in global health. Students will apply a range of techniques to address central topics, including: health disparities; medical impoverishment and financial risk protection; economic evaluations for health policy assessment; health system modeling; health system performance and country performance on health.

Through readings, basic programming using R software (www.r-project.org), and research projects, students will develop their research skills around three main areas of application, with an emphasis on low- and middle-income countries:

- I. Economic evaluation for health policy assessment
- II. Health system modeling
- III. Efficiency, equity, and performance

Course Note: Instructor permission is required for enrollment. Students who wish to enroll must request instructor permission in my.harvard. Please request permission by 5:00pm on January 18. The request should contain the following information: name, academic department and degree program, an explanation of how you will benefit from taking this course, and the relevance to individual career path and/or research plans.

Prerequisite: GHP 501

¹In addition to fulfilling distribution courses and concentration courses, all students must take the full-year course, Health Policy 2000A & B ('Core Course'), in the first year. Starting in their third year and continuing until they complete the program, students are required to take the weekly health policy research seminar (Health Policy 3040).

GHP 501. Modeling for Health System Analysis and Priority Setting [SPH]

Stephane Verguet

Spring 1; TuTh 9:45-11:15

2.5 credits SPH = 2 credits FAS

This course offers an introduction to modeling for health system analysis and priority setting in global health, and its key quantitative methods. Students will learn to use a range of tools to address central concerns and topics, including: health disparities; medical impoverishment and financial risk protection; economic evaluations for health policy assessment; health system performance and country performance on health. Modeling for health system analysis – and therefore this course – draws from the disciplines of global public health, health services research, epidemiology, economics and applied mathematics. Through readings, homework, basic programming using R software (www.r-project.org), and a research assignment, students will gain solid quantitative knowledge of the field.

The course is designed around three main areas of inquiry and application, with an emphasis on low- and middle-income countries:

- I. Economic evaluation for health policy assessment
- II. Health system modeling
- III. Efficiency, equity, and performance

Course Note: Instructor permission is required for enrollment. Students who wish to enroll must request instructor permission in my.Harvard. Please request permission by 5:00pm on January 18. The request should contain the following information: name, academic department and degree program, an explanation of how you will benefit from taking this course, and the relevance to individual career path and/or research plans.

RDS 280. Decision Analysis for Health and Medical Practices [SPH]

Ankur Pandya

Fall 2; TuTh 2-3:30

2.5 credits SPH = 2 credits FAS

This course is designed to introduce the student to the methods and growing range of applications of decision analysis and cost-effectiveness analysis in health technology assessment, medical and public health decision making, and health resource allocation. The objectives of the course are: (1) to provide a basic technical understanding of the methods used, (2) to give the student an appreciation of the practical problems in applying these methods to the evaluation of clinical interventions and public health policies, and (3) to give the student an appreciation of the uses and limitations of these methods in decision making at the individual, organizational, and policy level both in developed and developing countries.

Course Note: Introductory economics is recommended but not required.

Pre-requisites: ID 201 or BIO200 or BST201 or BST202&203 or BST206&207 or BST206&208 or BST206&209 (all courses may be taken concurrently).

Students who have taken RDS 286 may not take RDS 280.

RDS 282. Economic Evaluation of Health Policy & Program Management [SPH]

Stephen Resch

Spring 2; MW 2-3:30

2.5 credits SPH = 2 credits FAS

This course features the application of health decision science to policymaking and program management at various levels of the health system. Both developed and developing country contexts will be covered. Topics include: [1] theoretical foundations of cost-effectiveness analysis (CEA); [2] controversies and limitations of CEA in practice; [3] design and implementation of tools and protocols for measurement and valuation of cost and benefit of health programs; [4] integration of evidence of economic value into strategic planning and resource allocation decisions, performance monitoring and program evaluation; [5] the role of evidence of economic value in the context of other stakeholder criteria and political motivations.

Prerequisites: RDS280 OR RDS286 (concurrent enrollment allowed). Prior coursework in Microeconomics is recommended.

RDS 284. Decision Theory [SPH]

James Hammitt

Fall; MW 11:30-1

5 credits SPH = 4 credits FAS

Introduces the standard model of decision-making under uncertainty, its conceptual foundations, challenges, alternatives, and methodological issues arising from the application of these techniques to health issues. Topics include von Neumann-Morgenstern and multi-attribute utility theory, Bayesian statistical decision theory, stochastic dominance, the value of information, judgment under uncertainty and alternative models of probability and decision making (regret theory, prospect theory, generalized expected utility). Applications are to preferences for health and aggregation of preferences over time and across individuals.

RDS 285. Decision Analysis Methods in Public Health and Medicine [SPH]

Nicolas Menzies

Spring 1; MW 2-3:30

2.5 credits SPH = 2 credits FAS

An intermediate-level course on methods and health applications of cost-effectiveness analysis and decision analysis modeling techniques. Topics include Markov models, microsimulation models, life expectancy estimation, cost estimation, deterministic and probabilistic sensitivity analysis, value of information analysis, and cost-effectiveness analysis.

Course Note: Familiarity with matrix algebra and elementary calculus may be helpful but not required; lab or section times to be announced at first meeting.

Pre-requisites: (BST201 or ID201 or (BST 206 and BST 207)) and (RDS280 or RDS286 or RDS202). Concurrent enrollment is allowed for RDS 286. Concurrent enrollment is not allowed for RDS 202.

API 222. Machine Learning and Big Data Analytics [HKS]

Soroush Saghaian

Spring; TuTh 12-1:15

4 credits HKS = 4 credits FAS

In the last couple of decades, the amount of data available to organizations has significantly increased. Individuals who can use this data together with appropriate analytical techniques can discover new facts and provide new solutions to various existing problems. This course provides an introduction to the theory and applications of some of the most popular machine learning techniques. It is designed for students interested in using machine learning and related analytical techniques to make better decisions in order to solve policy and societal level problems.

We will cover various recent techniques and their applications from both supervised and unsupervised learning. In addition, students will get the chance to work with some data sets using software and apply their knowledge to a variety of examples from a broad array of industries and policy domains. Some of the intended course topics (time permitting) include: *K-Nearest Neighbors, Naive Bayes, Logistic Regression, Linear and Quadratic Discriminant Analysis, Model Selection (Cross Validation, Bootstrapping), Support Vector Machines, Smoothing Splines, Generalized Additive Models, Shrinkage Methods (Lasso, Ridge), Dimension Reduction Methods (Principal Component Regression, Partial Least Squares), Decision Trees, Bagging, Boosting, Random Forest, K-Means Clustering, Hierarchical Clustering, Neural Networks, Deep Learning, and Reinforcement Learning.*

Prerequisite: An understanding of intermediate-level statistics and probability theory (e.g., API-201, API-202, or equivalent courses).

Suggested Pre-requisites: An understanding of intermediate-level statistics and probability theory (e.g., API-201 or 202, or equivalent courses)

API-302. Analytic Frameworks for Policy [HKS] / Economics 1415 [FAS]**(Not Offered in 2023-2024)**

Richard Zeckhauser

4 credits HKS = 4 credits FAS

This course develops abilities in using analytic frameworks in the formulation and assessment of public policies. It considers a variety of analytic techniques, particularly those directed toward uncertainty and interactive decision problems. It emphasizes the application of techniques to policy analysis, not formal derivations. Students are encouraged to work with others on the challenging problem sets. The course employs mini-case studies,

methodological readings, the computer, the Internet, and a final exam. Students are pushed to be creative in confronting policy issues.

Prerequisites: An understanding of intermediate-level microeconomic theory and the basics of decision analysis; API-101, API-102, or equivalent, are sufficient.

ECONOMICS

Economics 1011a. Microeconomic Theory: Advanced [FAS]

Edward Glaeser

Fall; TuTh 12-1:15

4 credits FAS

Economics 1011a is similar to Economics 1010a, but more mathematical and covers more material. The course teaches the basic tools of economics and to apply them to a wide range of human behavior.

Prerequisite: Mathematics 21a or permission of the instructor.

Economics 2020A. Microeconomic Theory I [FAS] / API-111 [HKS] / HBSDOC 4010 [HBS]

Luis Armona

Fall; TuTh 1:30-2:45

4 credits FAS

A comprehensive course in economic theory designed for doctoral students in all parts of the university. Topics include consumption, production, behavior toward risk, markets, and general equilibrium theory. Also looks at applications to policy analysis, business decisions, industrial organization, finance, and the legal system.

Undergraduates with appropriate background are welcome, subject to the instructor's approval.

Prerequisite: Multivariate calculus and one course in probability theory. Thorough background in microeconomic theory at the intermediate level.

Economics 2020B. Microeconomic Theory II [FAS] / API-112 [HKS] / HBSDOC 4011 [HBS]

Christopher Avery, Samuel Richardson

Spring; MW 9-10:15

4 credits FAS

A continuation of Economics 2020A. Topics include game theory, economics of information, incentive theory, and welfare economics.

Prerequisite: Economics 2020a.

API 101. Resources, Incentives, and Choices I: Markets and Market Failures [HKS]

Four sections*: A – Juan Saavedra, B – Pinar Dogan, C – Pinar Dogan, Z – Christopher Avery

Fall; MW 10:30-11:45

4 credits HKS = 4 credits FAS

This course applies microeconomic reasoning to public issues, policies, and programs. It considers economic incentives and organizations; models of economic behavior, including markets, the absence of markets, and interventions in markets; the price system and how it works; and policy objectives and instruments. All sections cover a common set of core topics; the pedagogical approaches vary with the individual instructor.

Prerequisite: The Z section of this course presumes the ability to use basic calculus.

**The PhD Program in Health Policy strongly recommends Section Z.*

API-302. Analytic Frameworks for Policy [HKS] / Economics 1415 [FAS]

(Not Offered in 2023-2024)

Richard Zeckhauser

4 credits HKS = 4 credits FAS

This course develops abilities in using analytic frameworks in the formulation and assessment of public policies. It considers a variety of analytic techniques, particularly those directed toward uncertainty and interactive decision problems. It emphasizes the application of techniques to policy analysis, not formal derivations. Students are encouraged to work with others on the challenging problem sets. The course employs mini-case studies, methodological readings, the computer, the Internet, and a final exam. Students are pushed to be creative in confronting policy issues.

Prerequisites: An understanding of intermediate-level microeconomic theory and the basics of decision analysis; API-101, API-102, or equivalent, are sufficient.

SUP 578. U.S. Healthcare Industry and Regulatory Policy [HKS]

Leemore Dafny

Fall; TuTh 9-10:15

4 credits HKS = 4 credits FAS

The U.S. healthcare sector absorbs nearly one-fifth of GDP, encompassing a diverse set of industries with public, nonprofit, and for-profit buyers and sellers. Regulators have a substantial opportunity and obligation to promote efficiency and competition in these various industries. This course will introduce participants to the key sectors comprising the healthcare industry (including insurers, pharmaceuticals, and acute and non-acute care providers) from the vantage point of the firms operating within them. We will discuss the impact of regulation (including public insurance programs) on business strategies and outcomes, with a strong emphasis on competition policy (i.e., antitrust enforcement). Virtually all examples will be U.S.-based. We will discuss select developments in U.S. healthcare reform over the past 8-9 years, with an emphasis on changes that affect the business of healthcare. Course time will be split between lectures and case discussions. Readings must be completed before class due to the interactive case-teaching method employed.

Prerequisites: Prior course in microeconomics. Statistics (through linear regression).

HPM 206. Economic Analysis [SPH]

Ellen Meara

Fall 2; TuTh 11:30-1

2.5 credits SPH = 2 credits FAS

A course on microeconomics, focusing on the uses and limitations of the economic approach, with applications to public health and medical care.

ETHICS

Applied Computation 221. Critical Thinking in Data Science [FAS]

Michael Smith

Spring; TuTh 9:45-11

4 credits FAS

This course examines the wide-ranging impact data science has on the world and how to think critically about issues of fairness, privacy, ethics, and bias while building algorithms and predictive models that get deployed in the form of products, policy and scientific research. Topics will include algorithmic accountability and discriminatory algorithms, black box algorithms, data privacy and security, ethical frameworks; and experimental and product design. We will work through case studies in a variety of contexts including media, tech and sharing economy platforms; medicine and public health; data science for social good, and politics. We will look at the underlying machine learning algorithms, statistical models, code and data. Threads of history, philosophy, business models and strategy; and regulatory and policy issues will be woven throughout the course.

Recommended Prep: CS 109A, Introduction to Data Science or equivalent by instructor approval.

Economics 2022. Health, Well-Being and Justice [FAS]

Amartya Sen, Sudhir Anand

Fall; M 12-2

4 credits FAS

The course will be focused on an examination of the role of health in well-being and human capability, and the requirements of justice in the space of health. It will include discussion of the conceptual issues and measurement problems in health studies, and also in assessing inequalities in health and healthcare. The correspondence and dissonance in the links between health inequality, health inequity, and health justice will be examined. The challenge of instituting universal health care in less-developed countries will also be investigated.

History of Science 2953 (formerly 253). Bioethics, Law, and Life Sciences [FAS] / IGA 515 [HKS]

Sheila Jasanoff

Spring; Tu 9:30-11:30

4 credits FAS

Seeks to identify and explore salient ethical, legal, and policy issues – and possible solutions – associated with developments in biotechnology and the life sciences.

2652. Health Law, Policy, Bioethics, and Biotechnology Workshop [HLS]

I. Glenn Cohen

Fall; M 3:45-5:45

2 credits HLS = 2 credits FAS (However, if you write a research paper in the class, which is required of Petrie Flom Fellows, you will receive credit for a full distribution course, i.e. a 4-credit course in FAS).

This seminar will feature the presentation and discussion of cutting edge scholarship on health law, health policy, biotechnology and bioethics. The evaluation mechanism is that students must submit brief written comments on a number of the papers during the course. Because the papers are different every term, students can take the class as many times as they wish. Presenters will come from a wide range of disciplines and departments, and papers may feature doctrinal, economics, philosophical, political science, or other methods, but students need not have prior training in these disciplines. To determine whether this workshop is a good fit for their interests, students are encouraged to browse the listing of papers presented in past years that can be found here:

<http://petrieflom.law.harvard.edu/events/by-type/category/workshops>

BETH 718. Race, Gender, and Sexuality in Bioethics

Roberto Sirvent

Fall 1; M 12-2

2 credits HMS = 2 credits FAS

In their attention to gender, race, and sexuality, social approaches to bioethics challenge and expand contemporary bioethical theory and practice. Drawing from philosophy, theology, law, medicine, public health, and the social and biological sciences, this interdisciplinary field is both critical and constructive in addressing theory, method, and substantive ethical concerns across the clinical, research, organizational, public policy, and global spheres. In a (largely) seminar format, we will review the theoretical landscape and social movements that prompted the

emergence of feminist bioethics, diverse frameworks of justice, critical race bioethics, queer bioethics, and more as they inform our analyses of particular historical and present-day ethical issues. Special attention is paid to the structuring force of anti-Blackness in various clinical and research settings, the development and racialization of transgender medicine, and what it means to view state violence as a bioethics and public health issue.

GHP 265. Ethics of Global Health Research [SPH]

(Not Offered in 2023-2024)

Richard Cash

2.5 credits SPH = 2 credits FAS

This course is designed to expose students to the key ethical issues that may be encountered in the course of conducting global health research. Using case presentations and discussion-based class sessions, students will have the opportunity to begin developing their own tools for dealing with these important issues in an applied context.

GHP 288. Introduction to Health and Human Rights [SPH]

(Not Offered in 2023-2024)

Stephen Marks

2.5 credits SPH = 2 credits FAS

The aim of this course is to introduce students to the application of the human rights framework to a wide range of critical areas of public health. Through lectures, cases and guest speakers, students will become familiar with the human rights perspective as applied to selected public health policies, programs and interventions. The course clarifies how human rights approaches complement and differ from those of bioethics and public health ethics.

Among the issues to be considered from a human rights perspective are the bioethics, torture prevention and treatment, infectious diseases, violence prevention and responses, genetic manipulation, access to affordable drugs, community-based health management and financing, child labor, aging, and tobacco control.

GHP 293. Individual and Social Responsibility for Health [SPH]

Daniel Wikler

Fall 2; TuTh 2-3:30

2.5 credits SPH = 2 credits FAS

This course serves as an introduction to ethical issues in the practice of public health, with particular emphasis on those involving individual health-related choices. Our goals:

- Identify and articulate the ethical dimensions of decisions arising in the practice of public health.
- Contribute to the resolution of ethical dilemmas arising in the practice of public health through logically rigorous and evidence-based ethical reasoning.
- Examine the bases for ascription of responsibility for health to individuals, to society, and to others whose actions influence health.

ID 250. Ethical Basis of Public Health [SPH]

Dan Wikler

Fall 1; MW 8-9:30am

2.5 credits SPH = 2 credits FAS

This course serves as an introduction to ethical issues in the practice of public health. Students will identify a number of key ethical issues and dilemmas arising in efforts to improve and protect population health and will become familiar with the principal arguments and evidence supporting contesting views. The class aims to enhance the students' capacity for using ethical reasoning in resolving the ethical issues that will arise throughout their careers.

Unlike courses in medical ethics, which mainly examine ethical dilemmas facing individual clinicians, the population-level focus of this course directs our attention to questions of ethics and justice that must be addressed at the societal level.

These include:

- What social response is required of a just society to the needs of its members for protecting and restoring health?
- Is population health something other than the aggregate of the health concerns of the individuals who make

up a society at a given time? And what are the ethical implications of the answers?

- When are inequalities in health inequitable, and what priority should be assigned to reducing disparities in health when pursuing this goal might compromise the effort to maximize population health?
- Which ethical choices, if any, are unavoidable in developing the methodologies for measurement of health and of the global burden of disease?
- Which ethical choices if any are unavoidable in developing and using methods for priority-setting such as cost-effectiveness analysis and cost-benefit analysis? Are the ethical commitments of the profession of public health consistent with some methods and not others?
- Should the institution of universal health coverage be guided by ethical precepts and if so, what are these values and how should they guide policy?
- Can and should public health's dedication to improving population health conflict with the priorities of some individuals whose choices do not reflect such high priority for health? Should these individual preferences always be respected? Are there effective strategies that pursue population health in the face of such conflicts while preserving the individual's freedom to make unhealthy choices?
- How should responsibility for poor health be assigned, and what are the ethical implications of this assignment for poor health due to health problems due to smoking, obesity, and other unhealthy behavior? To the extent that the socio-economic health gradient reflects differences in how well people take care of themselves are these disparities in health individual failings rather than social injustices?

HEALTH EQUITY AND SOCIAL DETERMINANTS

EDU A145. Race and the State: The Role of Public Policy in U.S. Racial Inequality [GSE] / SUP 770 [HKS]

Desmond Ang

Fall; Tu 4:30-7:15

2 credits GSE = 2 credits FAS

This course examines the causes and consequences of racial inequality across a range of domains - from education and criminal justice to labor markets and civic and social engagement. While providing students with an economic toolkit for understanding and discussing discrimination, this course also draws on work in sociology and social psychology to shed light on the real-world ramifications of racial inequality in America. Throughout the course, students will engage in critical evaluation of the impacts that public policies – both current and historical - have on marginalized communities. Example topics include: 1) the social costs of police violence in minority neighborhoods, 2) the consequences of “ban the box” measures on discrimination in hiring, and 3) the role of civil rights policies in minority representation and racial polarization.

EDU H392. Childhood Trauma: Dynamics, Interventions, and Cross-Cultural Perspectives [GSE]

(Not Offered in 2023-2024)

Betsy McAlister Groves

4 credits GSE = 4 credits FAS

Evolving research on the developing child and the neurobiology of trauma has dramatically changed our understanding of childhood trauma and its impact on the growing child. This research is accompanied by expanding knowledge of effective interventions. This course focuses on both areas: the nature of childhood trauma and effective interventions for children affected by trauma. The overarching perspective of the course is the consideration of the child’s traumatic experience in an ecological context. Child trauma reverberates not only through the family but also across the larger systems in which the child lives: neighborhoods, schools, and health institutions. Conversely, these systems shape the child’s adaptation to traumatic experiences. The family’s culture is an important determinant of how the child makes meaning of the experience and how the child/family seeks help. The first portion of the course explores the consequences of early traumatic experiences in the context of psychosocial, biological, and developmental processes. We will focus on both the short-term responses and the longer term consequences of trauma. We will consider the meaning of trauma in different cultural contexts. The second portion of the course considers intervention, both clinical and systemic. What do we know about effective interventions? How do ethnicity, culture, and immigrant experiences inform appropriate intervention? How can educational systems be responsive to children affected by trauma? The third portion of the course addresses questions of change at the macro level: What current policy initiatives promote trauma-informed interventions or systems? What about prevention? The course will include lectures, case studies, and discussion. Students will be required to write a case study.

Permission of instructor required. Enrollment is limited to 40. Prerequisite: Prior knowledge or experience in basic counseling and/or child development helpful.

SOC 1197. Poverty in the United States [FAS]

Fall; TuTh 1:30-2:45

Thomas Wooten

Nearly one in three residents of the United States lives close to the poverty line, and a growing number of us live in deep poverty, subsisting on less than \$2 per day. This course examines the social world of poverty in the United States today. It pays particular attention to the lived experiences of low-income people. It also examines the parallel set of institutions low-income people must navigate—institutions that often perpetuate poverty: low-wage jobs, systems of policing and surveillance, substandard schools and colleges, exploitative housing, and predatory financial services. The course places a heavy emphasis on firsthand experience and learning. We will have guest lectures from people whose work or life experiences relate to the course subject matter. Students will also complete four fieldwork assignments, doing things like observing eviction court, applying for food stamps, or interviewing someone making ends meet at a low-wage job.

SUP 206. The Causes and Consequences of Inequality [HKS] / A138 [GSE] / ECON 1084 [FAS]

(Not Offered in 2023-2024)

Gordon Hanson

4 credits HKS = 4 credits FAS

Since 1980, inequality has increased sharply in the United States, select other high-income countries, and many emerging economies. Inequality in U.S. income and wealth today are at levels not seen since the end of the Gilded Age. These changes at the national level reflect widening disparities in earnings between less-educated workers and those with college or advanced degrees, the concentration of earnings at the very top of the income distribution, and growing divides in economic opportunity both across regions within countries and across neighborhoods within regions. In this course, we study the causes of inequality (including technological change, globalization, disparities in access to education, tax and regulatory policy, and gender and racial discrimination), the consequences of inequality for human well-being (in terms of consumption, health, and family structure), and the potential for public policies to improve access to economic opportunity (including early childhood education, assistance to needy families, subsidized health care, worker training, minimum wages, progressive taxation, anti-discrimination policies, place-based policies, and universal basic income). Students will acquire an understanding of the varied dimensions of inequality (by education, occupation, gender, race and ethnicity, place of residence, and national origin), analytical approaches to identifying the causal factors behind rising inequality, and familiarity with policy tools that govern access to opportunity and the post-tax distribution of income and wealth. The course is lecture based but will allow ample time for group discussion.

Course Notes: Also offered by the Graduate School of Education as A138 and the Economics Department as Econ 1084.

SUP 234. Poverty, Race, and Health [HKS]

(Not Offered in 2023-2024)

Fall; T 12:45-2:45

David Williams

4 credits HKS = 4 credits FAS

This course critically examines the health status of the poor, and of African Americans and other socially disadvantaged racial and ethnic groups in the US. Attention will be focused on the patterned ways in which the health of these groups is embedded in the social, cultural, political, and economic contexts, and arrangements of US society. Topics covered include the meaning and measurement of race, the ways in which racism affects health, the historic uses of minorities in medical research, how acculturation and migration affects health, and an examination of the specific health problems that disproportionately affect nondominant racial groups.

Note: A version of this course is offered in Harvard College (AAAS 197), but it is open only to undergraduates.

SBS 201. Society and Health [SPH]

Fall 1; MW 3:45-5:15, and a weekly lab

Ichiro Kawachi

2.5 credits SPH = 2 credits FAS

The course surveys the social determinants of health: socioeconomic status, structural racism, income inequality, neighborhood contexts, psychosocial work environment, social networks and social capital. The sessions introduce theories linking each social determinant to population health outcomes, measurement issues, and threats to causal inference. Sessions include discussion of different methods used in social epidemiology to understand causal processes, including econometric methods, multi-level regression and the use of natural experiments.

Course Note: All enrolled students must also enroll in a required lab section.

SBS 207. Race, Ethnicity and Health: Perspectives from the Social and Behavioral Sciences [SPH]

Fall 2; Tu 3:45-6:45

David Williams

2.5 credits SPH = 2 credits FAS

Health outcomes in the U.S. vary dramatically as a function of race and ethnicity. The purpose of this course is to address the possible pathways by which such disparities in health status arise at different stages in the life cycle. The course will highlight research that explores this issue from social, behavioral and psychological perspectives, as well as ideas about the meaning of race and ethnicity in American society. Students will be asked to develop their own research ideas that might help illuminate the nature of specific health disparities.

SBS 208. Adolescent Health [SPH]

Fall 1; TuTh 9:45-11:15

Pamela Murray, David Bickham, Laura Grubb

2.5 credits SPH = 2 credits FAS

This course aims to provide an overview of major topics related to adolescent health for future public health practitioners, including health care providers, mental health workers, educators, and others. It is meant to be a broad introduction to adolescent health through covering topics that are relevant to the lives of adolescents, including: sexual and reproductive health, media influences, mental health, policy and advocacy, LGBTQ adolescents, school health, nutrition, juvenile justice, disability, substance use, and racism in healthcare. The focus of the course is domestic, since adolescence is constructed differently across cultural contexts; however, we will explore global implications as much as class experience and knowledge permits. We welcome students to bring their diverse personal and professional experiences to enrich class discussions.

SBS 220. Social and Structural Inequalities and Children's Health [SPH]

Spring 1; TuTh 2-3:30

Natalie Slopen

2.5 credits SPH = 2 credits FAS

This course reviews major social and structural risks to children's health as well as opportunities for prevention. This class will review current theories of child development and mechanisms linking social and environmental conditions in childhood to physical and mental health disparities. Topics include economic inequality, neighborhood context, housing, school environments, racism, childhood trauma, and state-level policies (e.g., social safety nets, immigration). Major epidemiologic studies, landmark intervention trials, and social policy evaluations related to these topics will be presented. Students will design and conduct an original investigation of a social or structural factor in relation to a child health outcome through a secondary data analysis.

Course Note: The course is intended for students of a broad range of disciplines interested in child health issues, who have not necessarily had extensive training in maternal and child health.

SBS 246. Maternal and Child Health: Programs and Policies [SPH]

Fall 2; MW 3:45-5:15

Henning Tiemeier

2.5 credits SPH = 2 credits FAS

Components of health care programs for mothers and children are discussed in the context of the epidemiology of important health problems, the historical and legislative background, and social policies. The course takes a life-course approach and health programs appropriate to prenatal, early and late childhood, adolescence, and youth are presented in terms of the multidisciplinary and interdisciplinary action required to improve the health status of populations. The social, political, and environmental factors that shape current and future maternal and child health problems and policies are discussed. Topics include infant mortality and low birthweight, maternal and child mental health, maternal morbidity and mortality, services for children with special health care needs, and financing of health care for mothers and children.

SBS 254. Social Disparities, Stress, and Health [SPH]

Spring 2; TuTh 9:45-11:15

Laura Kubzansky

2.5 credits SPH = 2 credits FAS

This course is designed to review theories and research examining stress and the role it plays in social disparities in health. The course will review basic concepts and models of stress as well as the mechanisms by which stress may influence health and explain social disparities. A key aspect of the class will be to consider the quality of the research on stress and health, and students will be required to evaluate methods and measures. The course builds on a basic understanding of society and health and of epidemiology.

Course Prerequisite(s): SBS201 or EPI201 or ID201 or PHS 2000A

SBS 502. Mass Incarceration and Health in the US [SPH]

Spring 1; MW 11:30-1

Monik Jimenez

2.5 credits SPH = 2 credits FAS

This course reviews the health implication of mass incarceration on individuals and their communities. Although the course will focus on the impact of incarceration, involvement with the criminal justice system more broadly will be discussed. The course will discuss the current state of knowledge, identify key gaps and explore examples of successful interventions to improve health outcomes among criminal justice involved individuals. Various health related implications of criminal justice involvement will be discussed, such as infectious disease, mental health, cardiovascular disease and cancer. A framework grounded in history and critical race theory will be employed in addition to careful consideration of the intersection of race, sex/gender, socioeconomic position and sexual and gender minority status. Methodological concerns and ethical implications of research conducted among individuals while in custody will also be considered. Classes will combine lectures, guest speakers representing key stakeholders and individuals with criminal justice involvement, and student led engagement. This course is appropriate for masters and doctoral level students.

Course Note: Course restricted to SBS students. Students from outside the SBS Department may submit a petition.

SBS 506. An Introduction to History, Politics, & Public Health: Theories of Disease Distribution & Health Inequities [SPH]

Fall 1; Friday 9:30-12:30

Nancy Krieger

2.5 credits SPH = 2 credits FAS

This course offers an introduction to the social and scientific contexts, content, and implications of **theories of disease distribution**, past and present. It considers how these theories shape questions people ask about--and explanations and interventions they offer for--patterns of health, disease, and well-being in their societies. Designed for both master level and doctoral level students, SBS 506 also serves a pre-requisite for SBS 507, the in-depth continuation of the course required for SBS doctoral students. SBS 506 accordingly begins by reviewing the role of theory in the production of scientific knowledge. It next introduces both text-based theories of disease distribution developed in ancient Greece and China, and also oral traditions reflecting diverse American Indian, Latin American, African, and medieval European explanations of disease distribution, followed by an overview of theories employed during the rise of epidemiology as a distinct discipline in both Europe and the United States, from 1700 to 1950. It then introduces current theories and controversies and employs selected case examples to illustrate their application to--and implications for understanding--current and changing population distributions of disease and health inequities, especially in relation to class, race/ethnicity, gender, and sexuality. Emphasizing relationships between epidemiologic theory and practice, theories and frameworks covered include: miasma, contagion, germ theory, biomedical model, lifestyle, social production of disease/political economy of health, Latin American social medicine, health & human rights, social determinants of health, population health, psychosocial, lifecourse, and ecosocial theory.

Course Note: SBS 506 enrollment will end on Tuesday September 5, 2023 at 4:00pm (i.e., first Tuesday after the first Friday session of the course). After that time students will not be able to perform any enrollment transactions (including adding, dropping, or changing enrollment)

SBS 507. Advanced Seminar on History, Politics, & Public Health: Theories of Disease Distribution & Health Inequities [SPH]

Fall 2; Friday 9:30-12:30

Nancy Krieger

2.5 credits SPH = 2 credits FAS

This course builds on the prerequisite course SBS 506 and its critical focus on **theories of disease distribution**, past and present. Intended for doctoral students (and required of SBS doctoral students), SBS 507 deepens historical and present-day understanding of contemporary mainstream theories of disease distribution and their social epidemiologic alternatives. Pairing 20th and 21st CE historical and contemporary books (not articles!), the course both builds substantive knowledge regarding the content and public health implications of diverse theories of disease distributions while also developing skills in conducting literature searches about and engaging with complex scholarly arguments and discourse.

Course Prerequisites: SBS506 required.

SBS 514. Reducing Socioeconomic & Racial/Ethnic Inequalities in Health: Concepts, Models, Effective Strategies [SPH]

Spring 1; TuTh 9:45-11:15

Mary Bassett

2.5 credits SPH = 2 credits FAS

This course will provide a critical overview of conceptual approaches and empirical evidence for interventions that take a social determinants approach to reduce socioeconomic and racial/ethnic disparities in health status. The focus is on the extent to which policies and interventions on the social determinants of health can both improve health and reduce disparities. It considers interventions within the healthcare system, but emphasis is given to population-based interventions within the healthcare system, but emphasis is given to population-based interventions on the social determinants of health in multiple other societal sectors. Attention is also given to the social and political barriers to the development and proliferation of effective intervention to address social disparities in health.

WGH 230. The Health of Transgender and Gender Diverse People [SPH]

Fall 2; F 1-4

Sereno Reisner

2.5 credits SPH = 2 credits FAS

The goal of this course is to introduce students to transgender and gender diverse (TGD) public health, an emerging multidisciplinary field focused on the health and wellbeing of TGD adults (also referred to as gender minorities). Students will acquire foundational knowledge to understand and address the health and wellbeing of TGD people including: terminology, history of TGD health and medicine, and information about the make-up of who TGD communities; concepts, theories, and frameworks guiding TGD health; global epidemiological research on physical and mental health morbidity and mortality; health inequities/disparities and determinants of TGD population health; best practices in research methodologies such as measurement/operationalization of gender identity and community engagement methods; issues in healthcare access and utilization, including models of TGD care; evidence-based prevention and intervention strategies; law, policy, and advocacy considerations; and current controversies and scientific debates. Readings and discussion will incorporate the multiple contexts that influence the lives and health and wellbeing of TGD populations (e.g., social, cultural, structural, political, and legal). The course takes an intersectional approach, emphasizes strengths and resiliencies, and brings in a human rights perspective.

WGH 250. Embodying Gender: Public Health, Biology, and the Body Politic [SPH]

January Term

Nancy Krieger

2.5 credits SPH = 2 credits FAS

This course will focus on the social and biological processes and relationships from interpersonal to institutional involved in embodying gender, as part of shaping and changing societal distributions of, including inequities in, health, disease, and well-being. It will consider how different frameworks of conceptualizing and addressing gender, biological sex, and sexuality (that is, the lived experience of being sexual beings, in relation to self, other people, and institutions) shape questions people ask about and explanations and interventions they offer for a variety of health outcomes. Examples span the lifecourse and historical generations and include chronic non-communicable diseases, HIV/AIDS, occupational injuries, reproductive health, mental health, and mortality, each analyzed in relation to societal and ecological context, global health policy and human rights, work, and the behaviors of people and institutions. In all these cases, issues of gender and sexuality will be related to other societal determinants of health, including social class, racism, and other forms of inequality. The objective is to improve praxis for research, teaching, policy, and action, so as to advance knowledge and action needed for producing sound public health policy and health equity, including in relation to gender and sexuality.

Course Note: Prerequisite is a prior course on gender analysis and health, such as: WGH 201, WGH207, WGH210, WGH211, WGH220, SBS506, SBS507, ANTHRO1882, HLS2242, HLS2513, HLS2540, or another prior course on gender analysis and health (with instructor's approval).

HISTORY

History of Science 257. Current Issues in the History of Medicine: Seminar [FAS]

(Not Offered in 2023-2024)

Allan Brandt

4 credits FAS

Explores new methods for understanding disease, medicine, and society, ranging from historical demography to cultural studies. Topics include patterns of health and disease, changes in medical science and clinical practice, the doctor-patient relationship, health care systems, alternative healing, and representations of the human body. The course will focus on historical problem-framing, research strategies, and writing.

History of Science 258. Epidemics and Other Crises [FAS] / EPI 258 [SPH]

(Not Offered in 2023-2024)

David Shumway Jones

4 credits FAS

Epidemics continue to challenge human populations, causing substantial mortality and provoking dramatic societal responses. At the same time, there are many other health significant threats (e.g., cigarettes, air pollution, the climate crisis) that generate little concern or attention. This graduate seminar will examine the historical literature on epidemics and other health threats to explore the nature of the threats, how societies have responded, and how these histories can inform our understanding of medicine and public health. We will also explore the roles that historians can play when these crises strike: can we distill useful lessons from history?

Anthropology 2797. Theory and Practice of Social Medicine [FAS]

Fall; M 12-2:45

Salmaan Keshavjee, Mercedes Becerra, Lindsey Zeve, David Shumway Jones

4 credits FAS

Social medicine is a field of study and practice that uses insights from the social sciences to improve medical theory and the delivery of health care in communities and global health. This course will explore the historical foundations of social medicine in the 19th and 20th centuries in Europe, Latin America, Asia, Africa, and North America. It will then examine case studies of social medicine in the contemporary world that confront the challenges of post-colonialism, neoliberalism, racism, and care-giving.

MANAGEMENT

The following General Management and Healthcare MBA courses are options for fulfilling a management distribution requirement. Course descriptions and meeting times are available at <http://www.hbs.edu/coursecatalog/>. Note that 3 credits is equivalent to 4 credits in FAS.

General Management

- HBSMBA 1230. Revitalizing the Corporation: Modern Corporate Strategy (3 credits)
- HBSMBA 1504. Building and Sustaining a Successful Enterprise (3 credits)
- HBSMBA 1556. Becoming a General Manager (3 credits) *(not offered in 2023-2024)*
- HBSMBA 1816. Managing, Organizing & Motivating for Value (3 credits) *(not offered in 2023-2024)*
- HBSMBA 1908. Business at the Base of the Pyramid (3 credits)
- HBSMBA 2010. Corporate Governance and Boards of Directors (3 credits)
- HBSMBA 2040. Managing Change and Transformation (3 credits) *(not offered in 2023-2024)*
- HBSMBA 2056. Power and Influence (3 credits)
- HBSMBA 2055. Power and Influence for Positive Impact (1.5 credits)
- HBSMBA 2060. Managing Human Capital (3 credits)
- HBSMBA 2108. Supply Chain Management (3 credits)
- HBSMBA 2120. Managing Service Operations (3 credits)

Healthcare

- HBSMBA 1727. Tough Tech Ventures (3 credits)
- HBSMBA 1777. Entrepreneurship in Life Sciences (3 credits)
- HBSMBA 2157. US Healthcare Strategy (3 credits)
- HBSMBA 2185. Innovating in Health Care (1.5 credits)
- HBSMBA 2195. Transforming Health Care Delivery (1.5 credits)
- HBSMBA 6107. Field Course: Lab to Market (3 credits) *(not offered in 2023-2024)*

The following Harvard Kennedy School course will also satisfy a management distribution requirement.

SUP 578. U.S. Healthcare Industry and Regulatory Policy [HKS]

Leemore Dafny

Fall; TuTh 9-10:15

4 credits HKS = 4 credits FAS

The U.S. healthcare sector absorbs nearly one-fifth of GDP, encompassing a diverse set of industries with public, nonprofit, and for-profit buyers and sellers. Regulators have a substantial opportunity and obligation to promote efficiency and competition in these various industries. This course will introduce participants to the key sectors comprising the healthcare industry (including insurers, pharmaceuticals, and acute and non-acute care providers) from the vantage point of the firms operating within them. We will discuss the impact of regulation (including public insurance programs) on business strategies and outcomes, with a strong emphasis on competition policy (i.e., antitrust enforcement). Virtually all examples will be U.S.-based. We will discuss select developments in U.S. healthcare reform over the past 8-9 years, with an emphasis on changes that affect the business of healthcare. Course time will be split between lectures and case discussions. Readings must be completed before class due to the interactive case-teaching method employed.

Prerequisites: Prior course in microeconomics. Statistics (through linear regression).

MENTAL HEALTH POLICY

Health Policy 3002. Mental Health Policy [FAS]

(Not Offered in 2023-2024)

Haiden Huskamp, Alisa Busch

4 credits FAS

Participants discuss key institutional details related to the financing and delivery of mental health and substance use disorder treatment and existing research on mental health policy. Topics include: clinical presentation and treatment decision making; integration vs. exceptionalism; role of the government in financing and delivery of mental health and substance use disorder treatment; insurance coverage; payment; disparities in treatment; role of adverse childhood events; intersection with criminal justice; and social attitudes toward mental illness and addiction.

METHODS FOR POLICY RESEARCH

Economics 2110. Econometrics I [FAS] / API 114 [HKS] / HBSDOC 4170 [HBS]

Gregory Bruich

Fall; MW 1:30-2:45

4 credits

Economics 2110 and 2115 comprise a two-course sequence for first-year graduate students seeking training in econometric methods at a level that prepares them to conduct professional empirical research. Economics 2110 (fall) reviews probability and statistics, then covers the fundamentals of modern econometrics, with a focus on regression methods for causal inference in observational and experimental data.

Note: Enrollment limited to PhD candidates in economics, business economics, health policy, public policy, and political economy and government (PEG).

Prerequisite: Undergraduate courses in probability and statistics, regression analysis, linear algebra, and multivariate calculus.

Economics 2115. Econometric Methods II [FAS] / API 115 [HKS] / HBSDOC 4175 [HBS]

Will Dobbie

Spring; MW 1:30-2:45

4 credits

Economics 2110 and 2115 comprise a two-course sequence for first-year graduate students seeking training in econometric methods at a level that prepares them to conduct professional empirical research. Economics 2115 (spring) covers topics (different methods) in current empirical research. Faculty members from across the university will teach modules each covering a different method of causal inference, including but not limited to instrumental variables, panel data methods, and regression discontinuity and kink designs. The course will emphasize a mixture of theory and application, with problem sets focused on the replication or extension of recent papers utilizing these methods.

Note: This course is designed for PhD candidates in health policy, public policy, education policy, the Business School DBA program. Qualified undergraduates are also permitted to take the course with permission of the instructor.

Government 2001. Quantitative Social Science Methods I [FAS]

Kosuke Imai

Spring; M 3-4:15

4 credits

This class introduces students to quantitative methods and how they are applied to political science research. It has two overarching goals. First, we focus on the theory of statistical inference - using facts you know to learn about facts you don't know - so that you can truly understand a wide range of methods we introduce, feel comfortable using them in your research, digest new ones invented after class ends, implement them, apply them to your data, interpret the results, and explain them to others. Second, students learn how to publish novel substantive contributions in a scholarly journal. A substantial portion of those in this class publish a revised version of their class paper as their first scholarly journal article. Please see <http://j.mp/G2001> for details.

Government 2002. Quantitative Social Science Methods II [FAS]

Matthew Blackwell

Fall; TuTh 1:30-2:45

4 credits

This course provides a rigorous foundation necessary for quantitative research in the social sciences. After reviewing the basic probability theory, we offer a systematic introduction to the linear model and its variants -- the workhorse models for social scientists. We cover the classic linear regression model, least squares estimation and projection, fixed and random effects models, principal components analysis, instrumental variables, flexible regression models, and regularization for high dimensional data. In covering these topics, we deepen our knowledge of fundamental concepts in statistical inference while also demonstrating how these methods are applied in political science.

Prerequisite: Gov 2001 or permission of the instructor.

Government 2003. Causal Inference with Applications [FAS]

Kosuke Imai

Fall; MW 10:30-11:45

4 credits

Substantive questions in empirical scientific and policy research are typically causal. This class introduces students to both statistical theory and the practice of causal inference. As theoretical frameworks, we discuss potential outcomes, causal graphs, randomization and model-based inference, sensitivity analysis, and partial identification.

We also cover important methodological tools, including randomized experiments, regression discontinuity designs, matching, regression, instrumental variables, difference-in-differences, and dynamic causal models.

Prerequisite: Government 2001 or 2002 or the permission of the instructor.

Statistics 110. Introduction to Probability [FAS]

Joseph Blitzstein

Fall; TuTh 1:30-2:45

4 credits

A comprehensive introduction to probability. Basics: sample spaces and events, conditional probability, and Bayes' Theorem. Univariate distributions: density functions, expectation and variance, Normal, t, Binomial, Negative Binomial, Poisson, Beta, and Gamma distributions. Multivariate distributions: joint and conditional distributions, independence, transformations, and Multivariate Normal. Limit laws: law of large numbers, central limit theorem. Markov chains: transition probabilities, stationary distributions, convergence.

Prerequisite: Mathematics 1b or equivalent or above.

Statistics 111. Introduction to Statistical Inference [FAS]

Joseph Blitzstein, Neil Shephard

Spring; TuTh 1:30-2:45

4 credits

Introduction to the principles and methods of statistical inference, as a framework for achieving the three main goals of statistics: describing data and a phenomenon of interest, predicting one variable using another variable, and drawing causal conclusions about the effect of one variable on another. Frequentist and Bayesian perspectives on model building, learning from data, and making decisions under uncertainty. A three-pronged approach is emphasized, combining theory, simulation, and data.

Prerequisite: Statistics 110

Statistics 139. Introduction to Linear Models [FAS]

TBA

Fall; TuTh 1:30-2:45

4 credits

An in-depth introduction to statistical methods with linear models and related methods. Topics include group comparisons (t-based methods, non-parametric methods, bootstrapping, analysis of variance), linear regression models and their extensions (ordinary least squares, ridge, LASSO, weighted least squares, multi-level models), model checking and refinement, model selection, cross-validation. The probabilistic basis of all methods will be emphasized.

Prerequisite: Statistics 110 and Math 21a and 21b or equivalent. Statistics 111 is recommended.

Statistics 149. Introduction to Generalized Linear Models [FAS]

Mark Glickman

Spring; TBA

4 credits

Sequel to Statistics 139, emphasizing common methods for analyzing continuous non-normal and categorical data. Topics include logistic regression, log-linear models, multinomial logit models, proportional odds models for ordinal data, Gamma and inverse-Gaussian models, over-dispersion, analysis of deviance, model selection and criticism, model diagnostics, and an introduction to non-parametric regression methods.

Note: Examples will be drawn from several fields, particularly from biology and social sciences.

Prerequisite: Statistics 139 or with permission of instructor.

Statistics 160. Introduction to Survey Sampling and Estimation [FAS]

Kelly McConville

Spring; TBA

4 credits

Provides students with the tools to engage with complex survey data and survey weights. The course will cover various probability sampling techniques, such as clustering and stratification, and the impacts of these designs and survey weights on estimation. Students will gain experience with common survey estimators and variance estimation techniques. Additional topics will include methods for handling nonresponse, small area estimation, and nonprobability samples. Students will learn the methods presented through engagement with real-world, complex survey data.

Prerequisite: Stat 110, Stat 111 (may be taken concurrently); Math 21A or equivalent, Math 21B or equivalent; basics of R programming.

API 209. Advanced Quantitative Methods I: Statistics [HKS]

Dan Levy

Fall; TuTh 1:30-2:45

4 credits HKS = 4 credits FAS

The goal of this course is to prepare students to analyze public policy issues using statistics. Topics included fall in the areas of probability theory, sampling, estimation, hypothesis testing, and regression analysis. While many students taking this class will have already taken courses in statistics and regression analysis, this course will probably place a much stronger emphasis than typical courses on conceptually understanding the statistical methods. Since the course is targeted to first-year students in the MPA/ID program, we will not shy away from using the mathematical tools needed to develop the conceptual understanding. But the emphasis of the course will be on the conceptual understanding and application of the tools rather than on the math or the mechanics behind the tools.

Prerequisites: Multivariate calculus or linear algebra.

This course is open to non-MPA/ID students only by permission of the instructor. May not be taken for credit with API-201.

API 210. Advanced Quantitative Methods II: Econometric Methods [HKS]

Will Dobbie

Spring; MW 10:30-11:45

4 credits HKS = 4 credits FAS

Intended as a continuation of API-209, Advanced Quantitative Methods I, this course focuses on developing the theoretical basis and practical application of the most common tools of empirical. In particular, we will study how and when empirical research can make causal claims. Methods covered include randomized evaluations, instrumental variables, regression discontinuity, and difference-in-differences. Foundations of analysis will be coupled with hands-on examples and assignments involving the analysis of data sets.

Prerequisite: API-209 or permission of instructor. *This course is open to non-MPA/ID students only by permission of instructor. May not be taken for credit with API-202.*

S030. Intermediate Statistics for Educational Research: Applied Linear Regression [GSE]

Hadas Eidelman

Spring; Tu 10:30-11:45

4 credits GSE = 4 credits FAS

The HOW: The S-030 experience engages us in building a supportive course community where we all learn from one another. In place of more traditional pre-work such as reading chapters or articles, we will instead use videos (filmed by the instructor specifically for this course) and interactive opportunities for practice as preparation for each class meeting. This will allow us to use our time together to explore statistical topics in a deeply engaged and participatory format. Throughout the course, we will focus not only on the methods themselves but on why and how their use can represent a powerful tool for enacting change. We will emphasize the summarizing and presentation of statistical results for multiple audiences. Our focus will be on understanding how to use and interpret linear regression modeling to become both critical consumers and ethical producers of quantitative work.

The WHAT: This course goes in-depth through a set of quantitative methods referred to as the general linear model - regression, correlation, analysis of variance -- to address various questions in education, psychology, and social

science research. Examples of research questions we will be addressing are: How do children's demonstrations of separation distress relate to their age? Do mandatory seat belt laws save lives? Which animal has the most massive brain, relative to their body mass? and many more. We will learn statistical analysis by doing statistical analysis. Building on the basic principles of elementary statistics (the content of S-012 or equivalent), we will begin with the simple linear regression model. We'll then utilize its mechanisms to fit models that address increasingly sophisticated research questions. As we progress, we'll learn to fit models that can accommodate multiple predictors; transformations to address non-linearity; dichotomous and polychotomous predictors (both ordinal and nominal); statistical interactions; and quadratic relationships. We'll include a heavy emphasis on the substantive interpretation and communication of results. We will use Stata as our statistical software in this course. There will be multiple assignments -- some to be completed individually, some with a partner -- where students will address a variety of research questions through scaffolded analysis of real datasets, as well as a final project presentation.

The MONDAY SECTION: While the whole class meets together on Tuesday mornings, students are also expected to attend one 75-minute smaller-group section led by a Teaching Fellow on Mondays. Final assignment of section times will not be done on my.harvard during enrollment, but rather will be coordinated by the teaching team after enrollment has occurred.

Permission of instructor required. Enrollment procedure will be posted on the course website.

S040. Introductory and Intermediate Statistics for Educational Research: Applied Linear Regression [GSE]

Joseph McIntyre

Fall; TuTh 10:30-11:45 or TuTh 4:30-5:45

4 credits GSE = 4 credits FAS

Often when quantitative evidence is being used to answer questions, scholars and decision-makers must either analyze empirical data themselves or evaluate the analyses of others. This course will cover the basic principles of quantitative data analysis and is roughly comparable in content to the full-year S-012/S-030 course sequence in applied regression and data analysis. Students will examine real data gathered to address questions in educational, psychological, and social research settings, becoming acquainted with basic descriptive statistics, tabular and graphical methods for displaying data, the notion of statistical inference, and analytic methods for exploring relationships with both categorical and continuous measures. These topics will provide students with a solid foundation for addressing research questions through statistical modeling using simple and multiple linear regression. There will be an emphasis on applying the statistical concepts learned in this course--in particular, how to: (1) select the appropriate statistical techniques; (2) properly execute those techniques; (3) examine the assumptions necessary for the techniques to work appropriately; (4) interpret analytic results; (5) summarize the findings effectively; and (6) produce publication-style visual displays of results. Because quantitative skills are best learned through practice, computer-based statistical analyses will be an integral part of the course. There will be several problem sets involving the core concepts covered in class as well as several take-home assignments and a final project involving data analysis and the interpretation and reporting of research results.

Students are expected to attend two 75-minute class meeting a week. The class will be offered in two separate class meeting times: ONE OF Tuesday, 10:30 – 11:45 a.m. ET OR Tuesday, 4:30 – 5:45 p.m. ET (for a large-group meeting) AND ONE OF Thursday, 10:30 – 11:45 a.m. ET OR Thursday, 4:30 – 5:45 p.m. ET (for a small section meeting). Students will need to be available for at least one of the two course meeting-time options on each day (Tuesday and Thursday) to enroll in this course. Students may select which time they attend on Tuesday, but will need to attend the same Thursday section throughout the course.

No prior data analytic experience is required, but a working knowledge of basic algebra (GRE-level mathematics) is assumed, and some previous exposure to introductory statistics is advantageous. Recommended for most first-year Ph.D. students and any Ed.M. students wishing to enroll in a spring semester course that requires S-030 or S-040 as a prerequisite, such as S-052 or A-164. Please consult with the instructor if you have any questions about whether S-040 is right for you.

S052. Intermediate and Advanced Statistical Methods for Applied Educational Research [GSE]

Andrew Ho

Fall; TuTh 10:30-11:45

4 credits GSE = 4 credits FAS

This course is designed for those who want to extend their data analytic skills beyond a basic knowledge of multiple regression analysis and who want to communicate their findings clearly to audiences of researchers, practitioners, and policymakers. S-052 contributes directly to the diverse data analytic toolkit that the well-equipped empirical

researcher must possess in order to perform sensible analyses of complex educational, psychological, and social data. The course begins with general linear models and continues with generalized linear models, survival analysis, multilevel models, multivariate methods, causal inference, and measurement. Specific techniques exemplifying each of these topics include differences-in-differences, regression discontinuity, discrete-time survival analysis, fixed- and random-effects modeling, principal components analysis, and reliability estimation, respectively. S-052 is an applied course. It offers conceptual explanations of statistical techniques and provides many opportunities to examine, implement, and practice these techniques using real data. Students will learn to produce readable and sensible code in R or Stata to enable others to replicate and extend their analyses. Attendance at weekly sections is required.

Pre-requisites: Successful completion of a course or courses that include 12 or more full hours of class time on applied regression models beyond simple linear regression. Students who have not had this experience must discuss their previous training before or at the first class meeting. Students who do not meet the prerequisite should consider S-012, S-030, or S-040. See the syllabus at the instructor's website, <https://scholar.harvard.edu/andrewho/classes>, for more details.

NOTE: There are also many courses offered at HSPH that will satisfy the MPR (aka statistics) distribution requirement—essentially any courses in the Biostatistics Dept from BST210 up will count, and there are also a few courses in the Global Health and Population Dept that will count—for example GHP 525: Econometrics for Health Policy. For more options on fulfilling this distribution requirement, please see the MPR concentration document. Data Analysis courses listed in the Management concentration document also satisfy this distribution requirement.

POLITICAL ANALYSIS

DPI 115. The American Presidency [HKS] / GOV 1540 [FAS]

Roger Porter

Fall; TuTh 12-1:15

4 credits HKS = 4 credits FAS

This course analyzes the development and modern practice of presidential leadership in the United States by: (1) examining the evolution of the modern presidency, the process of presidential selection, and the structure of the presidency as an institution; (2) considering the ways in which presidents make decisions and seek to shape foreign, economic, and domestic policy; and (3) exploring the relationship of the presidency with other major government institutions, organized interest groups, the press, and the public. Its primary concern is with the political resources and constraints influencing the president's ability to provide leadership in the U.S. political system.

DPI 120. The U.S. Congress and Law Making [HKS] / 2251 [HLS]

David King

Spring; TuTh 1:30-2:45

4 credits HKS = 4 credits FAS

The United States Congress is the "board of directors" for the Federal Government, and it plays the central role in most national policy decisions. Yet how it works - the real story of how it works - is largely unknown, even among people who have worked in policymaking for a long time. Taught by the faculty chair of Harvard's Bipartisan Program for Newly Elected Members of Congress, this course puts students in the midst of legislative politics through academic readings and real-world cases. The course begins with the theory and history of legislatures and ends with a simulation involving lobbyists, journalists, and would-be legislators. It is ideal for anyone considering working with the Congress or state legislatures.

DPI 122. Politics and American Public Policy [HKS]

David King

Fall; TuTh 9-10:15

4 credits HKS = 4 credits FAS

How do major, transformative changes in public policy take place? Why do some big public policy reforms succeed while others fail or languish for decades? Major public policy changes often begin in the orderly world of analysis - but end in the messy world of partisan politics. To succeed a new initiative has to coincide with a political climate and a leadership capacity that allows the proponents to overcome the natural resistance to change. This course explores the major political institutions and organizations in the U.S. policy process. A "lobbying simulation" plays an important role in integrating elements of the course, and the course underscores the important roles of state, local, and tribal governments in addition to the federal government.

DPI 321. Modern American Political Campaigns [HKS]

(Not Offered in 2023-2024)

4 credits HKS = 4 credits FAS

Led by two seasoned American political campaign experts, one Republican, one Democrat, with diverse set of experiences in state and national politics, this class is an authoritative view on how to organize and manage a modern American political campaign, peppered with actual stories culled from decades of combined experience. We'll use the 2020 Presidential cycle as a living classroom to discuss tactics, draft internal strategy, and practice briefing for executive audiences. And with special guests from the world of Democratic and Republican politics, we'll dig deep into campaign strategy and what matters in the age of Trump. From formulating campaign strategy to choosing tactics, building an organization, and basic campaign management, this course provides the fundamentals for virtually every aspect of how a campaign is set up and run. Students will spend the first phase of the class learning the building blocks of campaign organization. The second phase will be a detailed exploration of various strategies to secure earned media, paid media (television, digital, and direct mail advertising), and grassroots organizing. Lastly, students will learn basic campaign management tools, including fundraising, budgeting, metrics, reporting, and strategic adaptation.

SUP 581M. Federal Health Policy Making from Legislative Specs to Regulations [HKS]

Sheila Burke, Richard Frank

Fall 1; W 3-5:45

2 credits

This course is focused on federal health policy-making institutions and the technical and strategic issues one must consider when developing health policy. The institutional focus will be on Congress and the Executive branch legislative and rule-making process. The Congressional institutions analyzed include the major Committees of jurisdiction, in the House and Senate, the Congressional Budget office, and the Congressional Research Service. We will also discuss the role of advocacy. In the Executive Branch we will examine the rule making process, the role of the Office of Management and Budget and the interplay between regulations, the Congress and the courts. Case studies in health policy successes and failures will be used to examine lessons on legislative and regulatory strategies. Examples include the battle over Medicare trust fund solvency, Drug Pricing reform, the role of Medicare Advantage, work requirements for Medicaid, Obama and Clinton health care reform efforts, the Medicare Catastrophic Act.

HPM 210. United States Health Policy [SPH]

John McDonough

Fall 1; MW 9:45-11:15

2.5 credits SPH = 2 credits FAS

This course will provide students with a basic and thorough understanding of the U.S. health system focusing on access, quality of care, and costs. Students will learn how the system and its most important sub-elements are structured, how care is organized, delivered, and financed, and how national health reform is influencing the future direction of the system. Students will write five policy memos concerning immediate and real-world U.S. health policy issues.

HPM 211. The U.S. Healthcare Safety Net & Marginalized Populations [SPH]

Benjamin Sommers

Fall 2; TuTh 9:45-11:15

2.5 credits SPH = 2 credits FAS

This course examines the U.S. health care safety net. We will analyze several key components of the health care system related to the care for low-income populations: Medicaid, the Affordable Care Act, community health centers, public hospitals, and state-based programs. We will also explore issues related to the health care of underserved and marginalized populations including Native Americans, immigrants, people experiencing homelessness, individuals with disabilities, and people experiencing incarceration. We will draw on a variety of materials and learning approaches, such as research articles, case studies, newspaper editorials, and a classroom policy debate. No previous coursework required, but class participation and discussion are essential. ^[L]_[SEP]

Priority given to: Due to limited class size, Health Policy & Management students will have first priority for enrollment. Students from other departments are invited to waitlist by application only: please send a one paragraph statement (no more than 300 words) describing why you are interested in this course and any other special circumstances you would like the professor to be aware of. The statement should be emailed to bsommers@hsph.harvard.edu and/or submitted directly as part of your enrollment petition to the Registrar by September 10th, 2023; applications received after that date will still be considered but on first-come, first-served basis.

HPM 247. Political Analysis and Strategy for U.S. Health Policy [SPH]

Adrianna McIntyre

Spring 1; MW 9:45-11:15

2.5 credits HSPH = 2 credits FAS

Health policy making in the U.S. has a strong political dimension. This course offers analytical insights into understanding U.S. health policymaking and developing political strategies that influence health policy outcomes. The course provides strategic skills for those in future leadership roles to influence the health policy process. Major topics to be covered include analyzing how health policy is shaped by interest groups, media, public opinion, legislative lobbying, elections, coalition building, policy legacies, institutions, and the politics of information. Student-led case studies focus on the politics of health policies in the U.S., including the Covid-19 pandemic, the

debate over the expansion of Medicaid, and abortion policy. This course must be taken for a grade and is not open to auditors.

HPM 502. Federal Public Policy and Population Health [SPH]

(Not Offered in 2023-2024)

Sara Bleich

2.5 credits SPH = 2 credits FAS

Public policies that promote population health by preventing and slowing disease onset are essential and complementary to clinical strategies for the management of disease. Effective public policies can also present alternatives to increased health care spending for maintaining and improving health. To understand how to use public policy as a tool to promote the population's health, knowledge about the key federal actors and their responsibility for addressing public health challenges is essential. So too is familiarity with the menu of available options for public policies and tools for policy analysis.

The overall purpose of this course is to familiarize students with the federal policy making process as well as provide opportunities for students to practice oral and written communication to policy makers and other key stakeholders. This course has four objectives: (1) to improve students' knowledge of current health policy issues, (2) to introduce students to the policy making process and the roles of various policy actors, (3) to prepare students to participate in the policy process and (4) to provide concrete examples of federal policy in the area of nutrition policy.

HPM 526. Long-Term Care Policy in the U.S. [SPH]

Susan Lynch

Fall 1; F 9:45am-1:00pm

2.5 credits HSPH = 2 credits FAS

The goal of this course is to provide students with a strong foundation of knowledge and understanding of the long-term care system in the United States and to explore long-term care policy reforms that are under consideration to improve long term care quality in various provider settings viewed through an equity lens. Specifically, this course will examine long-term care quality workforce issues, ownership, emergency preparedness, and reimbursement issues, as well as explore current legislative and regulatory efforts and innovative long-term care delivery models. Students will have the opportunity to explore these critical topics and strategic approaches through patient interviews, a team policy paper and presentation, and a final long-term care policy reform project.

17.200 American Political Behavior I [MIT]

Ariel White

Fall; M 11-1

4 credits FAS

Analyzes mass political behavior within the American political system. Examines political ideology, party identification, public opinion, voting behavior, media effects, racial attitudes, mass-elite relations, and opinion-policy linkages. Surveys and critiques the major theoretical approaches and empirical research in the field of political behavior.

GHP 212. The Political Economy of Health in Low and Middle Income Countries [SPH]

Kevin Croke

Spring 1; M 5:30-8:00

2.5 credits HSPH = 2 credits FAS

This seminar examines how political economy influences the health outcomes and the performance of health systems, with a focus on developing countries. The course begins with a review of several key theories and concepts in political economy, focusing on the strategic interactions between politics and economics in health systems. We examine concepts such as "path dependency" to help understand why some policies and institutions are difficult to change; how political institutions like the type of regime (i.e. degree of democracy or authoritarianism) structure political participation and influence health reforms; and how variation in "state capacity" shapes the ability of countries to implement complex reforms. We show how these theories and concepts can be applied to explain past events and how by taking into account political and economic constraints, they can be used to design more successful programs and health reforms. We review different empirical methods, including quantitative/causal inference and comparative case study methods and use them to test and extend theory. Theories of policy reform are applied to cases such as health sector reform in Brazil, Turkey, Kenya and other countries based on student interests.

The course involves a critical review of theories and the empirical academic literature in order to develop a political economy analysis of a health reform in a country selected by each student. The course is open to doctoral and masters students with a basic understanding of the political economy literature on health systems and interest in applied and academic research.

GHP 269. The Political Economy of Global Health [SPH]

Jesse Bump

Spring 2; MW 9:45-11:15

2.5 credits HSPH = 2 credits FAS

This course presents theoretical perspectives, empirical cases and research issues in policy analysis and political economy in global health. The focus is on analytical and methodological issues. The main purpose is to examine the political economy constraints on national and global health initiatives, the role of international agencies, the impact of non-governmental organizations, and the role of the state.

Course Activities: All students will be expected to participate actively in class discussions and submit three assignments. Doctoral students in GHP must write a final paper; master's students and non-GHP doctoral students have the option to either write a final paper or complete a take-home final exam. Exams and papers will constitute 80% of the grade and class participation 20%.

2497. Seminar: Public Health Law and Policy [HLS]

Carmel Shachar

Fall; Tu 3:45-5:45

Spring; Tu 3:45-5:45

2 credits HLS = 2 credits FAS

This seminar provides an overview of the historical law and policy decisions that have shaped the U.S. health care system and are informing current debates about health reform. Incorporating varying perspectives, the seminar discusses federal and state policy options to address current health and public health challenges.

This seminar begins with an analysis of health systems in other countries. Next, we discuss the key policy decisions that have shaped the current patchwork of public and private insurance coverage options in this country. After providing this international and historical context, we analyze in detail the key elements of the current U.S. health and public health care systems through the lens of its impact on vulnerable populations. We look at the components of the federal approach to reform, including the national health care reform law the Patient Protection and Affordable Care Act. We also consider several state initiatives that highlight how states are acting as laboratories of innovation to implement sweeping health and public health reforms. Finally, we discuss the current health law and policy climate in this country and explore both the opportunities and challenges for health policy solutions focused on increasing access to care and addressing public health concerns.

This seminar is open to students interested in health and public health law and policy; no background or prerequisites are required. The reading materials include various book chapters, cases, news reports, and scholarly articles that present diverse viewpoints on the topics presented. The course employs experiential learning techniques, such as role plays, simulations, and discussion posts to spark debate between different sides of often controversial issues. Over the course of a semester, students gain a wealth of hands-on experience in current and emerging health law and policy issues, produce a written policy paper, and develop a range of problem-solving, policy analysis, research and writing, oral communication, advocacy and leadership skills.